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AUSTRALIAN ARMY
TRAINING INFORMATION BULLETIN

NUMBER 69
INFANTRY BATTALION LESSONS FROM
VIETNAM
1965-71

1988

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OBSOLETE

Headquarters Training Command
6 June 1988

Authorised for issue



(R.S. BUCHAN)
Major General
General Officer Commanding

7610-66-130-0811

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**Australian Army Training Information Bulletin Number 69, Infantry
Battalion Lessons from Vietnam, 1965-71 (pub. 1988).**

Headquarters Training Command is responsible for the management and sponsorship of this TIB. The doctrine contained in this TIB was approved on 6 June 1988.

AMENDMENT CERTIFICATE

1. Proposals for amendments or additions to the text of this TIB should be made through normal channels to the sponsor. To facilitate this, there are amendment proposal forms at the back of this publication.
2. It is certified that the amendments promulgated in the under-mentioned amendment lists have been made in this TIB.

<i>Amendment List</i>		<i>Amended By (Printed Name and Initials)</i>	<i>Date of Amending</i>
<i>Number</i>	<i>Date</i>		
1.			
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School of Military Police	5
1 Training Group	10
2 Training Group	10
3 Training Group	10
4 Training Group	5
5 Training Group	5
6 Training Group	5
11 Training Group	5

PREFACE

Aim

1. The aim of this TIB is to provide a record of the main infantry battalion lessons from the Vietnam War during the years 1965-71.

Level

2. This TIB is written for officers and NCOs of all Corps. It will also be of value to those studying the doctrine for the employment of infantry battalions in counterinsurgency operations or in low-level conflict.

Scope

3. Generally the content shows 'how things were done at the time'. Where applicable, extracts from battalion after action reports have been included at the end of each section. These have been selected to show a variety of responses to situations and may not necessarily represent the standing operating procedures for that battalion at the time.

Background

4. This TIB contains a condensed version of a paper prepared by the SO1 (GS) Directorate of Infantry in 1972. At that time the paper was to be given wide distribution (possibly as a Training Information Letter), but for reasons of economy and because of disagreement over 'doctrine versus tactical techniques' this was not done. However, the paper was circulated for comment to six officers who held command or regimental appointments in South Vietnam.

5. In July 1972 at the Infantry Centre Ingleburn, seven battalion commanders from the Royal Australian Regiment met to study the Directorate paper and a summary of their comments was compiled. In the editing process, the summarised comments from the COs were incorporated in the main text, or added at the end of the appropriate section. The views of the six officers referred to in para-

graph 4 were compared with the original text and the COs' comments and were incorporated where appropriate. Where a lone dissenting view was expressed, it was not recorded in this TIB.

Associated Publications

6. The following pamphlets were applicable to infantry training and operations at the time of the Vietnam conflict:

- a. *Infantry Training, Volume 4 Part 1, The Battalion;*
- b. *Infantry Training, Volume 4 Part 2, The Platoon;*
- c. *The Division in Battle, Pamphlet 8, Infantry;*
- d. *The Division in Battle, Pamphlet 11, Counter Revolutionary Warfare, 1965; and*
- e. *The Enemy, 1964.*

7. For a comparison of current doctrine the following publications are applicable:

- a. *MLW One 3.1, Counter-Insurgency Operations, 1980;*
- b. *MLW Two, Inf 1.1, The Infantry Battalion, 1984; and*
- c. *MLW Two, Inf 1.2, The Rifle Platoon, 1986.*

Extracts

8. It should be noted that all extracts/quotations contained in this publication are shown verbatim. Abbreviations contained in extracts are not explained as it would prejudice the authenticity of the extract. Furthermore, to do so could cause confusion because the abbreviations used at the time of writing may differ from those currently in use.

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ABBREVIATIONS

The following abbreviations are used in this publication. Their sources are as shown.

JSP (AS) 101

AO	Area of Operations
APC	Armoured Personnel Carrier
CP	Command Post
CPX	Command Post Exercise
CRW	Counter Revolutionary Warfare
CS	Call Sign
DS	Direct Support
ECN	Employment Code Number
FAC	Forward Air Controller
FO	Forward Observer
FSB	Fire Support Base
FSV	Fire Support Vehicle
LZ	Landing Zone
MFC	Mobile Fire Controller
NSM	National Serviceman
ORBAT	Order of Battle
PD	Point Detonating (Fuse)
RCL	Recoilless Rifle
RPG	Rocket-Propelled Grenade
SITREP	Situation Report
SP	Self-Propelled
SOP	Standing Operating Procedure
TAOI	Tactical Area of Operational Interest
TEWT	Tactical Exercise Without Troops
TF	Task Force

Common Military Usage

ATF	Australian Task Force
FFE	Fire For Effect
HE CP	High Explosive Concrete-Piercing

LAW	Light Anti-Armour Weapon
MAW	Medium Anti-Armour Weapon
TIL	Training Information Letter

Common Military Usage During Vietnam War

Artytac	Artillery Tactical Headquarters
ARVN	Army of the Republic of Vietnam
CET	Combat Engineer Team
COSVN	Central Office for South Vietnam, (senior echelon of the Vietnam Communist Party in SVN)
CTZ	Corps Tactical Zone
DMT	Directorate of Military Training
FCC	Fire Control Centre
GVN	Government of the Republic of Vietnam
JTC	Jungle Training Centre (later renamed Land Warfare Centre)
LF	Local Force
LFT	Light Fire Team (armed helicopters)
MF	Main Force
MR	Military Region
MT	Mini-Team (engineers)
NVA	North Vietnamese Army
PF	Popular Force (locally recruited and based territorial force)
RF	Regional Force
RIF	Reconnaissance in Force
SR	Sub-region
ST	Splinter Team (engineers)
SVN	South Vietnam
UXB	Unexploded Bomb
VC	Viet Cong
VCI	Viet Cong Infrastructure

Figure 1-1.

Phuoc Tuy Province

and Surrounding Areas.

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Major Villages of Phuoc Tuy Province

CHAPTER 1

BACKGROUND TO OPERATIONS

SECTION 1-1. OUTLINE OF SITUATION

101. This chapter provides a brief summary of the enemy forces and the situation encountered by Australian infantry battalions in South Vietnam (SVN) during the period mid 1965 to the end of 1971. Phuoc Tuy Province and the surrounding areas are shown in [Figure 1-1](#).

102. The involvement of Australian infantry battalions in SVN has been divided into four phases:

- a. *Phase 1. June 1965 to May 1966.* In this period the 1st Battalion, Royal Australian Regiment (1 RAR) supported by an APC troop of the Prince of Wales Light Horse (PWLH), 105 Fd Bty RAA, 161 Fd Bty RNZA and a logistic support group was deployed as part of the US 173rd Airborne Brigade (Separate) at Bien Hoa.
- b. *Phase 2. May 1966 to December 1967.* This period saw the deployment of two battalions (with supporting arms and services) as the 1st Australian Task Force (1 ATF) at Nui Dat in Phuoc Tuy Province. Task force operations were almost always conducted within the province in this period.
- c. *Phase 3. January 1968 to June 1969.* The task force had been increased to three battalions and during this period spent considerable time outside the province on operations aimed at reducing the threat to the US bases at Bien Hoa and Long Binh.

- d. *Phase 4. June 1969 to November 1971.* For the last 12 months of this period the task force was reduced to two battalions. Anti-guerilla and pacification operations were carried out in this period, almost entirely in Phuoc Tuy Province.

103. In the following sections the enemy situation in each phase is discussed in outline.

SECTION 1-2. 1 RAR - BIEN HOA

104. In June 1965, when 1 RAR deployed to Bien Hoa, the Viet Cong (VC) in most areas of the country had progressed to the late stages of Phase 2 (the active phase) of Mao Tse Tung's concept of revolutionary warfare. The Army of the Republic of South Vietnam (ARVN) corps headquarters at Bien Hoa (with the associated air base) and the Allied headquarters and logistic complex at Long Binh shared equal priority with the capital Saigon as VC objectives. In June 1965, about one month after the deployment of 1 RAR, the enemy had positioned an estimated 7 000 combat troops to the north and east of the Bien Hoa - Long Binh complex in addition to some 10 000 irregular troops. The combat troops included:

- a. three Main Force (MF) regiments;
- b. four MF battalions; and
- c. the equivalent of 15 full strength (100+) Local Force (LF) companies.

105. Further north, in the I Corps Tactical Zone (CTZ), North Vietnamese Army (NVA) regular units had already moved into battle positions and evidence was accumulating to confirm the presence of NVA advance parties in other CTZs.

106. By the end of 1965 NVA troops had entered III CTZ in sufficient numbers to permit more than a division to be concentrated against the Bien Hoa military complex. At the beginning of February 1966 the estimated number of enemy formations throughout SVN was 12 VC and eight NVA regiments. By March 1966 the VC had recruited, upgraded and concentrated sufficient forces in III CTZ to form two MF divisions; 5 and 9 VC Divisions. Although there were no

formed NVA units or formations in III CTZ, VC units had been bolstered by members of the NVA. All units and formations were at full strength except 5 and 9 VC Divisions which consisted of two infantry regiments plus supporting troops only. By mid-1966, 5 VC Division had taken over operational responsibility for the area east of the Bien Hoa complex. This area extended as far east as central Binh Tuy Province.

SECTION 1-3. DEPLOYMENT OF 1 ATF - PHUOC TUY

107. In March 1966 the Australian Government made the decision to increase the force to a task force of two battalions with supporting arms and logistic units. The task force was deployed to Phuoc Tuy Province and came under the operational control of II Field Force Vietnam. Operations were supported by U S forces, including a standby reserve force while large operations were in progress. Tactical air support was available from Bien Hoa Air Base, a few minutes flying time away.

108. Around this time US forces were being increased from 25 000 in late 1965 to 260 000 by mid-1966. The anticipated VC victory now appeared uncertain with the initiative passing to the Allied forces. This section covers the task force operations from May 1966 to December 1967 which were conducted almost exclusively in Phuoc Tuy Province.

109. At the time 1 ATF deployed to Phuoc Tuy Province, enemy forces there enjoyed complete freedom of movement, deriving much of their logistic support from the populace. The province was part of an area known to the VC as "Ba Hien" or "Eastern Nam Bo" and included all of the area of the then Government of SVN's (GVN) Military Region 3, to the south and east of the Song Dong Nai River. The principal enemy manoeuvre units in this area were 274 VC MF and 275 VC MF Regiments, both subordinate to 5 VC Division. In addition, "Phuoc Tuy's Own" D445 VC LF Provincial Mobile Battalion which had been upgraded to battalion status in early 1965, cooperated with the three district VC LF companies: C23 from Xuyen Moc, C25 from Long Dat and C41 from Chau Duc. Although D445 and the district companies were not subordinate to 5 VC Division, they often supported elements of that division. Possibly the best

example of this was the Battle of Long Tan (18 August 1966), when D445 Battalion operated with 275 VC MF Regiment against a battalion of the task force.

110. Subsequent Australian operations in eastern Phuoc Tuy Province forced 275 VC MF Regiment to move north to Phuoc Long Province and by late 1967 HQ 5 VC Division and its supporting troops had also moved from the 1 ATF Tactical Area of Operational Interest (TAOI). However, while 1 ATF activity was mainly directed at the enemy MF regiments and D445 Battalion, other LF companies in the province together with village guerilla units and the VC infrastructure (VCI) continued to be developed. The extent of civilian support available enabled the enemy, in late 1967, to raise another LF battalion (D440) which included NVA infiltrators and key cadre from D445 Battalion. Significantly, by this time all enemy MF formations and units as well as some of the LF units had received a number of NVA reinforcements. By the end of 1967 enemy forces opposing 1 ATF consisted of the following:

- a. *274 VC MF Infantry Regiment.* This regiment had a strength of 1200 to 1500 and was based in the Bien Hoa/Long Khanh/ Phuoc Tuy Province tri-border area.
- b. *D440 VC LF Infantry Battalion.* This battalion had a strength of 350 to 400 and was based in the Phuoc Tuy/Long Khanh border area astride Route 2.
- c. *D445 VC LF Infantry Battalion.* This battalion had a strength of 350 to 400 and was based in south-eastern Phuoc Tuy Province.
- d. *Three District LF Companies.* The three district LF companies operating in the 1 ATF area were C23 with a strength of 30, C25 and C41 each with a strength of 110.
- e. *Village Guerrilla Units.* Numerous village guerrilla units operated in the area, each with a strength of 8 to 20.

SECTION 1-4. 1 ATF - MAIN FORCE OPERATIONS

111. This section covers the period January 1968 to May 1969. At the beginning of 1968 the task force was increased to three battalions. During this period considerable time was spent on operations outside Phuoc Tuy Province. The task force was given the role of protecting important approaches to the major Allied military complex in the Bien Hoa/ Long Binh area and elements of the task force were deployed to Bien Hoa Province to carry out this role. The Tet Offensive of January/February 1968 occurred when major elements of the task force were out of Phuoc Tuy Province.

112. **Tet Offensive.** On the nights of 31 January and 3 February 1968 the VC occupied the province capital Baria and the district capital of Long Dien respectively. On the morning of 4 February two companies from 1 ATF supported by a troop of armoured personnel carriers (APCs) entered Baria. After some intense fighting in which heavy casualties were inflicted on the enemy, the VC were cleared from the town. Over a period of six days two ARVN battalions (with help from a task force company) cleared the enemy from Long Dien. The VC occupation of Baria and Long Dien constituted part of the Tet Offensive and demonstrated that the VC had the capacity to launch major assaults and seize important towns, even though they were not able to hold them for a lengthy period.

113. In early 1968 the 1 ATF role in III CTZ was upgraded. From March to May 1968 the task force was deployed to the north of Saigon on the Bien Hoa/Binh Duong Province border, astride one of the major enemy infiltration corridors. It was in this period that regimental attacks against the Australian fire support bases (FSBs) Coral and Balmoral were mounted by elements of 7 NVA Division, an elite formation intent on capturing the Bien Hoa Air Base and ultimately Saigon.

114. After the defeat of the enemy in the May 1968 offensive, 1 ATF returned to its Nui Dat base and turned its attention to provincial enemy forces in Phuoc Tuy Province. In the main these consisted of 274 VC MF Regiment, heavily reinforced with NVA regulars, and enemy LF units. There were three additions to the enemy order of battle (ORBAT) facing 1ATF: HQ Military Region 7, 74 NVA Rocket Regiment and D65 NVA Engineer Battalion.

115. In preparation for the 1968 Tet Offensive the enemy reorganised its administrative boundaries around Saigon. It also formed two tactical HQs, one of which was known as T7, to control the military effort of the provincial MF and LF troops. When the Tet and May offensives failed, the T7 organisation was retained but inserted as an intermediate HQ between Central Office for South Vietnam (COSVN) which was the supreme enemy headquarters in SVN and some of the VC sub-region and province authorities. It was redesignated as Military Region 7 (MR7) HQ and controlled all enemy MF and LF forces in the provinces of Bien Hoa, Long Khanh and Phuoc Tuy.

116. 1969 brought further redeployments for 1 ATF outside Phuoc Tuy Province. The original 1 ATF adversary (5 VC Division) and the newly formed MR 7 organisation were again adopting threatening postures to the north and east of the Bien Hoa/ Long Binh complex and a new offensive appeared likely. 5 VC Division's subordinate formations now included two NVA infantry regiments (174 and 33 Regiments) and 275 VC Infantry Regiment which was largely composed of NVA reinforcements.

117. After a series of sweep operations against 5 VC Division and MR7 forces, 1 ATF moved east and then south through MR7 MF base areas (principally 274 VC Infantry Regiment in the tri-border area Bien Hoa /Long Khanh /Phuoc Tuy) and the VC Sub-Region 4 (SR4) base areas in the Hat Dich (Bien Hoa/ Phuoc Tuy Province border). These later sweeps, followed by land clearing operations in the Hat Dich area, contributed greatly to the decline of VC military power in this area.

SECTION 1-5. 1 ATF - COUNTER-GUERILLA/ PACIFICATION OPERATIONS

118. In November 1970 the task force was reduced from three to two battalions with operations being conducted almost entirely in Phuoc Tuy Province.

119. In late 1969 it became obvious that the enemy, particularly in Phuoc Tuy Province, was reverting to early Phase 2 of revolutionary warfare. As 1 ATF was able to concentrate its efforts around the population centres, the enemy support agencies including the VCI

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were divorced increasingly from the population. Classic ambushing and patrolling tactics by sub-units of 1 ATF further isolated and reduced the enemy. By this stage the VC were restricted in their local recruiting and the numbers of NVA reinforcements had slowed.

120. 1970 saw the disbanding and amalgamation of both MF and LF units throughout MR7. Stragglers spoke of the many hardships enemy soldiers had to endure and prisoners from enemy hospitals gave a clear indication of the poor condition of many combat and logistic units. Captured documents told of shortages of men, key cadre, food, medical supplies, ammunition and weapons. Villagers were demanding higher prices from the VC for food and other commodities normally obtained through VC entry/exit and forward supply organisations. Political reorientation and indoctrination sessions were common in all VC units. Some units disappeared for months undergoing reorganisation and retraining. The enemy were suffering and the success of the pacification programme seemed assured.

121. On 29 November 1970, part of D445 Battalion, with elements of the now disbanded D440 Battalion, attacked the district capital of Xuyen Moc. VC plans for a 1971 Tet Offensive in the southern populated areas of the province were affected by chance encounters of enemy reconnaissance parties with elements of 1 ATF.

122. March and April 1971 brought further encounters with D445 Battalion. Further north, 274 VC MF Regiment also became more active, resulting in 1 ATF operations in the north of the province. By mid 1971, 33 NVA MF Regiment had begun to re-establish itself in a border base area in southern Long Khanh Province and the traditional east-west line of communication between the Hat Dich and the May Tao Mountains was again in operation. Operation OVERLORD reduced the immediate threat from 33 NVA MF Regiment but did not eradicate it.

123. By the end of 1971 enemy forces in 1 ATF's original TAOI were patiently making preparations for activity after the withdrawal of the Australians. Of the MF troops, 274 VC Regiment was once again a viable and improving force. It had even extended its area of operations to include south east Phuoc Tuy Province. D445 Battalion was reported to have been broken into company units so as to avoid detection and to bolster the local district units, all of which still existed at a much reduced strength. The VCI, though much reduced in the final two years of 1

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ATF's deployment in the province, continued to exist and had the potential to expand and support the armed struggle when the time was considered right. It remained as an organisational structure capable of controlling and administering a parallel government and military apparatus which could eventually take over Phuoc Tuy Province.

124. 1 ATF was withdrawn from Phuoc Tuy Province by December 1971. The last logistic support elements departed from Vung Tau in March 1972.

SECTION 1-6. EXTRACTS FROM AFTER ACTION REPORTS - ENEMY

125. "One aspect of the battle that is worthy of mention was the use of snipers by the VC. These were used continuously throughout the day from the earliest contact. Snipers operated from ground positions, exceedingly well concealed, and from trees. They harassed both rifle companies and battalion HQ and were effective in making our movement extremely cautious. They did inflict casualties but their marksmanship was not really of a high order. This was the first occasion the unit had experienced sustained sniping although snipers are believed to have been active during the Battle of Long Tan." - 6 RAR, Feb 67.

126. "The enemy position was a very strong one and generally well dug in. Although not a defensive position it was sited for good all-round defence. Individual pits were sited very skilfully with very good fields of observation and fire. They were invariably located under a heavy canopy and could not be detected from air observation. They were camouflaged with leaves, sticks and local vegetation, and because of the nature of the light coloured sandy soil, spoil heaps blended in naturally with the background and were difficult to see. I was unable to pick out individual pits from low air observation even when I knew exactly where they were, when I flew over the area subsequently." - 6 RAR, Feb 67.

127. "As usual, contacts occurred at very short range and again VC fire discipline was found to be very good. The standard of enemy shooting remains poor." - 5 RAR, Apr 67.

128. "In spite of very strongly prepared positions, the enemy on this operation withdrew quickly when heavily engaged. It is possible that

he was surprised on each occasion and this was a contributing factor to his hasty departure. On each occasion the enemy had a well prepared position to withdraw to a few hundred metres away.” - 7 RAR, Jun 67.

129. “There is an urgent necessity to see and understand the meaning of enemy sign, for example branches dragged across tracks, leaves stripped off trees, wooden arrows, dead branches, carvings in trees. Whilst these signs indicate enemy presence, in the majority of cases, the meaning is not well known to us. Possibly detailed information could be collated for each area to provide battalions with a greater knowledge of enemy sign. The best solution to this problem is considered to be the attachment of indigenous soldiers to each rifle company.” - 5 RAR, Apr 69.

130. “Enemy camps were observed first by our forces in all cases and were given away by the stench of latrines, the increased use of tracks in this area and the signs of timber cut in the vicinity for overhead protection of bunkers. Quite often the enemy used bombed areas as a source of supply for his timber and camps were found close to these areas. Spoil was often disguised as anthills so those too were useful indication of nearby camps.” - 1 RAR, Sep 68.

131. “Enemy caretaker parties and others tend to return to camp shortly after attack both by night and day. It is believed that is to ascertain our movement and to remove items from caches left behind. Caches were usually located 100 m to 150 m from the camp centre and buried.” - 9 RAR, Jan 69.

132. “Bunkers encountered were well camouflaged and could not be detected until our troops had reached within 10 m of them. All bunkers were interlocked by a series of track systems.” - 5 RAR, Apr 69.

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133. "Old bunker systems, especially those which have been bombed, need to be rechecked, as the enemy had in several cases re-occupied two or three bunkers in an old complex whilst living in small scattered groups." - 5 RAR, Apr 69.

134. "On three occasions the enemy threw coloured smoke. On the first occasion smoke was thrown near the area of a contact and caused some confusion to air recce of the area. On the second occasion a company was receiving an Iroquois resupply and purple smoke was thrown 200 m north of the LZ. He again caused confusion by throwing smoke during preliminary checks of friendly locations prior to an airstrike. This gained the enemy a 40 minute respite." - 5 RAR, Apr 69.

135. "The enemy again demonstrated the importance they attach to the recovery of their dead. This was particularly marked during two night contacts with 30 to 40 of D445 Battalion on 1 May and with approximately 70 of D445 on 3 May 70. The ambushed enemy were observed to suffer numerous casualties. Intelligence sources state the number of their dead exceeded 50, however only nine bodies were recovered." - 8 RAR, May 70.

136. "The enemy digs up all rubbish left behind by allied forces in their old harbour areas. Australian and ARVN rations were found in several camps occupied by us. All surplus rations are to be backloaded rather than buried in future." - 1 RAR, Sep 68.

137. "VC usually used tracks. Ambushes on well worn tracks were often successful. They used these tracks by night when moving into or out of the area and by day within the area." - 9 RAR, Jan 69.

138. "The enemy fired short bursts from his automatic rifles and LMGs. As a result it was very difficult to determine where his LMGs were. He also has a drill for clearing the battlefield as the action progresses e.g. he picks up expended brass after firing two or three short bursts." - 7 RAR, Aug 67.

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139. "The VC still cache their valuables in the places that have been taught to all Australian soldiers and outlined in the village search lessons at the Jungle Training Centre and in Infantry Pamphlets." - 1 ATF, Oct 67.

140. "The VC did not booby trap paths, but placed booby traps 10 to 15 feet (3-5 m) from them." - 1 ATF, Oct 67.

141. "On contact the enemy broke from the area quickly moving through the jungle then coming back on the track when he considered he was clear of the contact area." - 5 RAR, May 69.

142. "This operation has reconfirmed that the VC will remain hidden in base camp areas, avoiding all contact until he is physically walked upon by our searching troops. There were several examples of areas being searched with no result but the next day different troops in the same area finding enemy. The VC stand a better chance of survival by remaining hidden rather than them continually moving to new areas." - 5 RAR, May 69.

143. "VC infiltrate through the minefield around the town in many places. The wire presents no barrier to them and apart from the parts they have already cleared, they are able to clear through the minefield by feeling for the mines with their toes as they progress. A process not highly recommended even by them but relatively successful. They also use the gaps left in the minefield to cross." - 9 RAR, May 69.

144. "When in contact, the enemy moves about and gives the impression that he is of greater strength than he actually is. He engages the front and flanks of the force in which he is in contact, moving his fire positions quickly and often. A small enemy force can achieve maximum delay for the escape of his main body and prevent our force from developing any rapid counter action. One method of reacting to this is for our own forces to hold the ground already gained in the contact area and then begin changing the fire position of our own troops. By moving about, our troops should hinder the enemy's freedom of movement and ability to identify and neutralise our troops' fire positions. We can thus achieve better results by gaining the initiative in the fire fight area." - 6 RAR, Jun 69.

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145. "The use of snipers in trees - after the initial fire fight both in the contact area near bunkers and during our withdrawal to DUSTOFF LZs. They were a cause of concern and while they did not cause casualties they created confusion. The most effective weapon against snipers was the M79; the GPMG M60 was also used but was not always available as they were being employed on their primary targets on the ground. Troops showed a natural tendency to initially neglect tree search once their attention was gained in a heavy ground contact." - 5 RAR, 69.

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CHAPTER 2

INFANTRY BATTALION ORGANISATION

SECTION 2-1. ESTABLISHMENT CHANGES

General

201. In relation to the basic organisation of the battalion, it was considered that the four rifle company, three platoon structure was adequate. A few minor changes to the infantry battalion establishment were considered desirable by battalions during 1965-71. Some of these proposals were as follows:

- a. *Battalion Headquarters.* Battalion headquarters required two batmen. The operations officer also required a vehicle and driver.
- b. *Signal Platoon.* Radio operators should “belong” to companies as a functional grouping and only come together for training as required by the signals officer.
- c. *Mortar Platoon.* There was a continuous requirement for a mobile fire controller (MFC) to be with each of the four rifle companies. To meet this requirement an *ad hoc* arrangement using one of the corporals from platoon headquarters was necessary. Four mortarmen were required to carry the radio equipment and provide communications for the MFCs.
- d. *Clerks.* The increase in administrative workload within a battalion necessitated a variation in the rank structure and allocation of clerks within the battalion.

- e. *Base Security.* Additional men, weapons and communications were required for base security, where circumstances required a unit to work from a base such as Nui Dat.

202. **Interpreters.** The increment for Vietnam was five interpreters. The ideal was to have our own Australian interpreters join a battalion about six months before movement overseas. If the ideal cannot be met, indigenous interpreters used must be of a much higher calibre than those used in the past, and should remain permanently allocated to a sub-unit if they are to be of any value. It was considered that the number should be increased to ten.

Support Company

203. **Company Headquarters.** At that time there was no company 2IC. In peacetime, a support platoon commander had been misemployed as a company 2IC; usually either the OC mortar platoon or the OC signal platoon. It was considered that a company 2IC should be added to the establishment to cope with the administration of support company and battalion headquarters.

204. **Antitank Platoon.** There was considerable controversy over the need to retain this platoon for its primary role of antitank defence. The conference of COs made the following points:

- a. *Primary Role.* It was agreed that the platoon should be retained and its primary role was to remain antitank in order to retain a centralised antitank capability at battalion level.
- b. *Secondary Role.* The question of a secondary role for the platoon was considered. The majority of COs felt that the platoon should be cross-trained for a secondary role of tracking/reconnaissance. A minority view was that a surveillance platoon be raised, with tracking and reconnaissance tasks as part of its role.

- c. *Weapon Limitations.* The limitations of the current medium anti-armour weapon (MAW) in relation to infantry responsibilities for antitank defence to a distance of 500 m were raised. The 84 mm Carl Gustav, though having an actual range capability of 500 m, could not meet the 500 m frontal requirement in defence if sited for enfilade fire or in depth. In view of this it was considered that there was a need for an MAW with better range capabilities.
- d. *Radios.* All agreed that radios **MUST** be provided for the platoon, for both its primary and secondary role.

205. **Tracking Platoon.** In Vietnam, as well as Malaya and Borneo, the need for a tracking capability in the battalion was demonstrated. This had been provided by training and employing the antitank platoon as a tracking platoon as no enemy armour threat existed.

206. **Assault Pioneer Platoon.** The conference made the following points:

- a. *Organisation.* All but one CO strongly supported the requirement for five 8-man sections which would provide one section per rifle company HQ, and one for battalion HQ tasks.
- b. *Numbers.* All acknowledged the lavish scale of engineers experienced in Vietnam would be unlikely to recur, even though three assault pioneer sections were still not considered sufficient.
- c. *Rank Structure.* The majority view was that the rank structure of the platoon should provide for a captain platoon commander and corporal section commander.

207. **Mortar Platoon.** The COs made the following points:
- a. *Organisation.* There was general agreement that the platoon should retain its basic organisation of three sections, each of two mortars, and that only minor amendment to the establishment was required, such as the provision of a fourth MFC.
 - b. *Check Plotters.* All agreed that extra check plotters were required.

Extract From After Action Report - Mortars

208. "A complete re-evaluation of all aspects of the organisation and procedures of the mortar platoon is required. The mortar platoon establishment and procedures must provide an equivalent standard of safety to that which is provided by artillery. With the problems of ground and air clearances and the provision of observers down to platoon level, there is doubt whether the FCC can control three separate baseplates as well as two artillery section FSBs in mobile operations." - 3 RAR, Mar 71.

The Rifle Company

209. **Support Section.** There was a proposal that the antitank platoon be disestablished and responsibility for antitank defence decentralised to company support sections, with an increase in the rank of the support section commander to sergeant. The conference summarised the points as follows:

- a. *Organisation.* All agreed that the section should be retained in its current general size and shape. In this context it was considered that, as an alternative to MAWs, the section should normally be equipped with three GPMGs.

- b. *Rank Structure.* In view of the diversity of employment of the section it was agreed by all that the rank of section commander should be sergeant and that each section be provided with a radio.

210. In Vietnam the field strength of rifle companies fell from establishment strength on arrival to 80 to 90 including attachments, after approximately six months service. This was a major problem and required further examination.

Administrative Company

211. **Quartermaster Platoon.** The question of stewards for all messes was considered in view of the past misemployment of soldiers, particularly riflemen. It was strongly felt that an increment of nine stewards as suggested in the paper was insufficient and that the increment should be twelve, consisting of a sergeant, two corporals, three lance corporals and six privates. This includes an NCO supervisor for the ORs mess.

212. **Medical Platoon.** The following points were made in relation to the establishment of the medical platoon:

- a. *Hygiene.* Normal hygiene should be within the capability of a rifle company. The hygiene section of the medical platoon should be used for the headquarters and echelon areas, and special hygiene tasks such as malarial control spraying or dengue control.
- b. *First Aid/Platoon Stretcher Bearers.* Most battalions agreed on the importance of rifle platoon stretcher bearers, and some battalions found trouble in meeting the requirement from unit band strength. It was proposed that the rifle platoon needed a stretcher bearer who had undergone formal training and reached the standard required of the RAAMC Medical Assistant. It was suggested this should be acknowledged as a separate infantry employment code number (ECN).

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CHAPTER 3

OPERATIONS

SECTION 3-1. INTRODUCTION

301. There were very few battalion operations in Vietnam. Generally operations were by companies within an overall battalion plan. Most operations included a variety of tasks, for example a reconnaissance- in-force (RIF) operation might include a search for bunkers, protracted ambushing, tasks with ARVN and the use of stay-behind platoons.

302. Tactical concepts of the different commanders of IATF varied. In some years, due partly to the degree of enemy activity and directions from higher headquarters, offensive operations in depth predominated. In other years pacification and framework operations assumed priority. Factors fundamental to any scheme of operations were:

- a. close cooperation with civil authorities;
- b. the maximum use of local military forces within the populated areas; and
- c. the provision and use of accurate, up-to-date and timely intelligence. There had to be complete integration of operations and intelligence.

SECTION 3-2. INTELLIGENCE

303. The nature of counter revolutionary warfare (CRW) and the past history of enemy activity in Phuoc Tuy created obstacles for intelligence that were only overcome by patience, determination and resourcefulness. Battalions not only kept extensive intelligence records, but were also active in the gathering of information from local forces and civilians. It was considered important in CRW that all battalions be trained to regard the collection of information and its prompt passing back as one of their primary duties.

304. **Enemy Organisation and Methods.** There must be a continual build-up of information on the enemy organisation and methods of operation. In Vietnam, enemy ORBAT records were comprehensive but often enemy intentions were not correctly assessed.

305. **Topography.** Information on topography must be continuously collected, recorded and disseminated. This should include:

- a. roads and tracks with emphasis on likely ambush sites;
- b. wet and dry going; and
- c. all villages, including those deserted or resettled.

306. **Incident Maps.** Up-to-date, overprinted, incident maps should be available to battalions. Incidents depicted should include:

- a. antipersonnel and antitank mines;
- b. contacts by type (for example ambush, bunkers); and
- c. location of enemy caches and hides.

307. **Air Photographs.** Air photographs were not readily available at a readable scale from HQ 1 ATF. Some battalions used light aircraft and set up their own photographic facilities. This was excellent in providing up-to-date briefing material, and as a supplement to existing maps.

308. **Intelligence Gathering.** The gathering of intelligence is more productive if treated as a two-way process. Information should be passed on to locals as well as being sought from them. This helps convince the locals of the sincerity of the intelligence effort and gives them information about their own areas, for which they are primarily responsible. Much can be said without risking our security. The information gatherer, if not a linguist, must have a good interpreter available, otherwise valuable information may be missed. It was considered that an interpreter must have:

- a. a thorough knowledge of the indigenous population;

- b. a sound knowledge of the tactical picture, so that he does not miss particular snippets of relevant information; and
- c. the ability to detect feelings that are projected in the course of a conversation.

SECTION 3-3. PATROLLING

309. Patrols in depth were, in reality, small scale offensive operations with the aim of ambushing enemy parties, raiding small installations, restricting the mobility of the enemy and forcing them onto the defensive.

310. Patrols of up to company strength often operated for long periods at considerable distances from an FSB. This was especially so during the later years in Vietnam. Helicopters provided the capability to reinforce quickly or extricate a sub-unit if it was in real difficulty. Leadership, field and battlecraft must be of a high standard to ensure success in this type of patrolling. The enemy was always capable, in the vicinity of his base areas, of concentrating quite rapidly against intruders. It was considered that patrols must avoid prolonged stays in any one location and rely on mobility, security of movement and speed of action for success.

SECTION 3-4. AMBUSHING

311. Ambushing formed part of almost all operations in Vietnam. There were no particular lessons that changed the fundamental considerations for ambushing contained in our training pamphlets. Minor changes were made to suit the circumstances and nature of the enemy at a particular time. Ambushes varied in size from companies on RIF operations to half-platoons on the approaches to populated areas. Layouts varied from the popular triangle to more conventional linear ambushes.

312. Faults detected in ambush technique were as follows:
- a. There was an over-reliance on the M-18A1 Claymore mine to the detriment of well-sited small arms. This comment was not agreed on by all battalions; some suggested all ambushes should be based on the Claymore as the principal killing weapon.

- b. Too much emphasis was placed on the shape of ambushes. The layout must be dependent on the ground, weapons available and enemy habits.
- c. A lack of alertness caused lost opportunities. The use of strong points of four to five soldiers with a simple system of strong point alert was used by some battalions with success.
- d. There was a lack of follow-up at night. A sustained burst of fire with an aggressive follow-up by fire and movement should be used. In this way, fewer wounded enemy escaped and fewer dead enemy were dragged away. The aggressive follow-up was not recommended in areas known to be mined.
- e. There was a lack of proper use of illumination.
- f. Carelessness and noise, either during the occupation or when leaving the area, led to lost opportunities. As troops are most vulnerable at these times, proper sentries and full alertness are required.
- g. Troops either did not have sufficient practice, or were generally unaware of the problems of ambushing inside villages and towns as part of pacification operations. Lessons were learnt the hard way.

Extracts From After Action Reports - Ambushing

313. "Well laid ambushes are the best way in which to kill enemy. The skills of laying and triggering an ambush are only acquired after very considerable training. Ambushes should be emphasised more in training in Australia." - 7 RAR, Oct 67.

314. "Ambushing of enemy tracks and waterholes in the initial phase, that is for four to five days, of an RIF operation is very profitable." - 5 RAR, May 69.

315. "On the conclusion of our operation, a twenty strong US stay behind force was inserted into the area using the helicopters which extracted Australian personnel. This stay behind group successfully ambushed an enemy foraging party, proving the value of the concept." - 8 RAR, Jan 70.

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316. "Once a killing area is selected detailed planning is required to fill the area with lead from all weapons available to the platoon, remembering the characteristics, strengths and weaknesses of the weapons concerned. To rely on one type of weapon alone invites failure." - 4 RAR, Jul 71.

317. "The range at which fire should be opened in ambushes is two metres." - 7 RAR, Aug 67.

318. "As soon as the track patterns are established ambushes begin to bring results. Once the tracks are denied to the enemy there is no other way he can move from one place to another." - 7 RAR, Oct 67.

319. "Ambushing pays dividends. It requires less movement by our troops, leaves less of our sign for the enemy to react to, and places us in a better tactical position than the enemy when the contact occurs. The ratio of our own to enemy casualties emphasises the advantage of ambushing over reconnaissance in force operations." - 6 RAR, Jun 69.

320. "The tracker platoon was used as a stay behind ambush in another battalion FSPB when that battalion vacated the area. The enemy made six attempts in 12 days to enter the vacated base and the value of a stay behind element proved to be worthwhile." - 5 RAR Dec 69.

321. "In ambushes and encounter contacts quick reaction after initial fire fight is essential to capture and search enemy dead. The enemy will withdraw very quickly carrying or dragging his wounded and dead, leaving only a few to cover the withdrawal by use of small arms and RPG fire." - 7 RAR, Jul 70.

322. "If the enemy is moving into a killing ground, fire should be held until engagement range is reduced to five metres rather than open fire at 20- 25 m." - 7 RAR, Jul 70.

SECTION 3-5. BUNKERS

323. A great deal of experience in attacking bunker systems in close country was accumulated by most battalions in Vietnam, particularly after the early stages of deployment into Phuoc Tuy Province. A high proportion of casualties occurred in bunker contacts. A Training

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Information Letter (TIL), No 4/70, was prepared by the AHQ Battle Analysis Team, summarising the experience and techniques up to 1970.

324. The initial advantage lay with the enemy, normally concealed in well-prepared and well-sited defensive complexes, which may have been either a home base area or a logistic installation looked after by caretakers. Each bunker contact was different, although the problems faced and techniques most used were as follows:

- a. The first problem was to identify a system early enough to lessen initial casualties. Every effort was made to look for and understand the enemy signs of occupation.
- b. Contact, when initiated by the enemy, was at short range, and only when he felt sure troops would step on the system. Opening range varied from two to thirty metres.
- c. Determining the flanks and depth of the system was difficult. Reconnaissance patrols were used, but often inhibited the use of fire support and the development of the action if they made contact, thus allowing the enemy to take or keep the initiative.
- d. The attack was launched in one of two ways:
 - (1) *The "bounce"*. The "bounce" was an immediate assault after the initial contact, or after the discovery of the system, with no preparatory bombardment. There were successful examples of this, generally against only small numbers of enemy and/or rear unit logistic camps. Success depended on timing, aggression and leadership. Some "bounces" against MF enemy incurred heavy casualties and the attacks failed.

- (2) *Deliberate assault.* A deliberate assault used all available fire support, both for preparatory bombardment and for blocking/cut-off tasks. Because of safety distances, this normally meant disengaging to allow the use of air and artillery. The assault would go in supported by whatever armour or fire support was available in the area.
- e. Enemy reaction to our bunker tactics varied from immediate withdrawal covered by tenacious rear parties, to a determined stay and fight attitude, or an aggressive follow-up of the disengagement and harassment of casualty evacuation. On occasions, snipers were used by the enemy and this showed initially our lack of training in counter-sniper techniques. The M79 was found to be effective against snipers.
- f. Blocking or cordoning with ambushes, in conjunction with the use of air strikes and artillery to force the enemy out, was seldom successful. The bunkers still had to be cleared and searched.
- g. The problem of whether or not to destroy enemy bunkers and installations immediately is discussed in "Infantry-Engineer Cooperation", [paragraph 3137\(b\)](#). Opinions varied. Thorough searching and demolition of a thirty bunker system would take a rifle company one day.
- h. Stay-behind parties were often successful in ambushing the enemy returning a few days later to investigate his bunkers and caches.
- i. Mine detectors were a most useful item, both for cache searching and for the detection of mines and booby traps. Mines were most often used on the approaches to a logistic camp held by a small caretaker group.

Extracts From After Action Reports - Bunkers

325. "All methods were used in attacking bunker systems, namely:
- a. The immediate aggressive assault on initial contact to try and "bounce" the system.
 - b. The "break contact" to withdraw a safe distance to bring in air and artillery.
 - c. The ambushing of bunker camp tracks over a period in an attempt to kill enemy troops moving to and from the system without prior disclosure of our presence.
 - d. As above but disclosing our presence by using artillery and air to make him leave a system and forcing him into our ambushes." - 5 RAR, Aug 69.
326. "The method found most successful is to assault the position on the widest possible front, with small elements watching each flank and a depth element as a reserve and/or firm base. All leading sections move in bounds using fire and movement, clearing and consolidating each bunker before proceeding to the next. All visible bunkers should be cleared, engaged or be capable of being engaged simultaneously." - 5 RAR, Aug 69.
327. "On some occasions when bunkers are detected there is a need for a support group armed with M72, M79 and grenade launchers to be available near the leading elements of an assault group. The support group can rapidly provide neutralising fire against the enemy, especially as these weapons provide a large fragmentation coverage when tree bursts occur. This will break up the VC pattern of fire and movement in the bunker system." - 6 RAR, Mar 70.
328. "The majority of bunker contacts are initiated by enemy fire and the bulk of casualties are taken in the first few minutes of the fire fight. Soldiers do not go immediately to ground; they run three to ten paces and as a result you have five wounded instead of one." - 7 RAR, Oct 70.

329. "A system may consist of any number of bunkers from one to 200. One problem is to ascertain how many. The average system encountered is between 20-40 bunkers covering an area about 150 x 200 yards. Some or all of the bunkers may be connected by crawl trenches and in some cases tunnels. The average bunker dimension is 10ft x 6ft x 5 ft deep with 3-5ft of overhead protection (logs, ferns, dirt). Average silhouette above ground is about two feet. There is an entrance and an exit hole (from which most of the fighting is done or from the reverse side on top of the bunker using the roof as a parapet - they do not normally fight from within the bunker). There are frequently weapon pits outside the bunkers." - 5 RAR, Aug 69.

330. "Bunkers are sited in depth and mutually supporting. The camouflage is normally such that they cannot be seen at much more than 10 yards. (The majority of bunkers met have been in bamboo forests)." - 5 RAR, Aug 69.

331. "A 20-40 bunker system could be held by a force from three men up to a company. The problem is to find out the strength. Enemy fire control is good and it is rare that flanking bunkers reveal themselves until an attack is launched. A small party of enemy can move from bunker to bunker and give the impression of a much larger force." - 5 RAR, Aug 69.

332. "The average distance of initial contact - when the enemy opens fire on our searching troops - is 10 metres. Some contacts have been initiated at 25 yards some at six feet. Because we are the searching and moving element, bunker contacts are usually initiated by the enemy." - 5 RAR, Aug 69.

333. "Depth bunkers may remain silent well after the forward line has been captured and will cause casualties if assaulting troops do not treat all bunkers as being occupied. Depth bunkers may have claymores as well as those on the perimeter of the system." - 5 RAR, Aug 69.

334. "On several occasions it was again shown how a relatively small force (platoon) is capable of doing search operations and making contact with a considerably superior force entrenched in bunkers and with the aid of the fire support of mortars, artillery, gunships, strike aircraft, can overcome that opposition with light casualties." - 5 RAR, Dec 69.

335. "During this operation, because of the VC strengths and indications that he was attempting to avoid contact, it was demonstrated that:

- a. A quick flanking assault into bunkers was possible. The surprise gained often prevented the VC from being able to develop any defensive fire. Thus the bunkers were assaulted and occupied with a minimum of casualties to our own troops.
- b. Reconnaissance parties had to be prepared to fight for information." - 6 RAR, Dec 69.

336. "Too much time can be spent in savouring accomplishments after a successful bunker assault. Instead, despatch a quick follow up." - 7 RAR, Oct 70.

337. "The problem is how to determine the extent and siting of the bunker camp. It has been found that this can rarely be done effectively except by physically assaulting the position (because of enemy fire control, camouflage and our lack of visibility). To send small recon elements once contact has been made is extremely hazardous and frequently inhibits operations. If a recon element is used it must be of sufficient strength to fight its way out of a minor contact or to recover and assist back any casualty that may occur; this element needs a wireless so that it can report its location and direct support fire if required (two wireless sets per platoon are therefore required). When any element is away from the main body, supporting fire can only be employed in depth - the position being investigated is therefore left free from any air or arty strikes and this can give the enemy that unhindered time he needs to withdraw from the system or move to alternate bunkers." - 5 RAR, Aug 69.

338. "The shock action of following up the initial contact by immediately deploying on a wide front, has on two occasions forced a small enemy to flee the bunkers leaving everything except weapons. The risks are obvious and against an enemy main force the action can result in heavy friendly casualties. Success with this method has only been obtained against enemy logistical type small units and is recommended for use only where we have achieved surprise or where large numbers of our troops are so heavily committed in the initial contact that a fighting withdrawal could be as expensive as pushing on. This method is normally confined to platoon level, and is the result of aggressive leadership at that

level. While supporting fire onto the objective is restricted to infantry platoon weapons, artillery fire is brought down in depth to provide a measure of cutoff against enemy withdrawal. Helicopter gunships have also been of considerable value in a blocking role in these circumstances." - 5 RAR, Aug 69.

SECTION 3-6. EXPLOITATION

339. On many occasions in Vietnam, too much emphasis was placed on the point of contact, perhaps in an effort to avoid casualties. At times, up to three higher levels of command were concerned with running, as opposed to helping in, the battle of the platoon or patrol commander. Enemy intentions beyond the point of contact were seldom correctly assessed in time to be of value.

340. It was agreed that maximum effort should be made to exploit any success by immediate and relentless pursuit. If necessary, fresh troops should be inserted for the task.

SECTION 3-7. VILLAGE AND TOWN FIGHTING

341. There was more fighting within villages and towns than was expected or trained for. Operations in Baria, Long Dien and Binh Ba showed again the value of the infantry-armour team in house-to-house fighting and the soundness of Army doctrine. Experience showed the following:

- a. Cooperation with local officials and district forces was essential and yet was often difficult to achieve. Clearance for troops to enter settled areas must be obtained before combat entry.
- b. Preparation for such operations should include the issue of extra M72s, M79s and grenade adapters.

SECTION 3-8. CORDON AND SEARCH

342. **Insertions.** The three common means of deployment were by helicopters or APCs or by foot. Each had obvious advantages and disadvantages, with helicopters being the quickest and most flexible, and foot deployment the most secure with the best chance of achieving surprise. Deception was often used, and any one operation generally

saw all three means employed. Long insertions by foot, at night, achieved surprise and good results.

343. Much experience in operations of this type was gained, particularly during the years up to 1969. Minor techniques varied but there were no new aspects necessitating change to Army doctrine. Two points worthy of comment are as follows:

- a. The advantages of day and night cordons are well known, but there is a strong case for cordons to be closed prior to last light.
- b. There is a requirement for patience and thoroughness in searching houses and their grounds. Meticulous attention to detail in training should overcome this problem.

Extracts From Battalion After Action Reports - Cordon and Search

344. "Cordon and search operations can be particularly successful during the rice harvest season, as the VC must make contact with the villages and the VC infrastructure at this time. The capture of 42 confirmed VC infrastructure during the operation proves this lesson." - 1 ATF, Dec 67.

345. "Cordons inserted by APCs and in daylight just prior to last light are effective." - 1 ATF, Feb 68.

346. "Close assault weapons should be held on hand and ready for deployment if it is suspected that VC are present in the village. M72, 90mm RCLs and flamethrowers are the weapons required as artillery and mortar fire are difficult to use with safety within the cordon. There is also the problem of preventing damage to houses and private property." - 1 ATF, Feb 68.

347. "Given sufficiently obvious cordon positions and junction points plus limited air reconnaissance, no prior ground reconnaissance is essential for an effective cordon to be positioned by night." - 9 RAR, Dec 68.

348. "The overnight cordon was not of the thin red line type. Section posts were adopted, mutually supporting with good fields of fire and trip flares used to seal all around the area. An attack against any sector of

the cordon by an enemy company would have been welcomed. APCs with a platoon sealed an open end of the village and maintained a section for ready reaction around the cordon or in the village.” - 5 RAR, Dec 69.

349. “When in a known cache or VC occupied area, patient searching is the only means of finding all the installations. Hoi Chanh (deserters from the VC to SVN Government) are of valuable assistance but are often not aware of all caches. Systematic searching by troops is the best method of effectively covering the area.” - 6 RAR, Dec 69.

350. “By changing unit and sub-unit search areas at frequent intervals it was possible to obtain better results as the new search force often developed different approaches or methods which uncovered previously undiscovered VC activity.” - 6 RAR, Mar 70.

351. “When Civil Affairs personnel are to be employed in a village after it has been cordoned, the Civil Affairs personnel allocated to the task must be placed under command of the unit which is conducting the operation for security, movement and coordination.” - 5 RAR, Jan 67.

352. “To function at maximum effectiveness each check point must have:

- a. National policeman.
- b. Interpreter.

After an initial all-out effort, during which time traffic invariably lessens and a number of evaders, deserters and persons with out-of-date papers are apprehended, it is sufficient to conduct spot checks at various places and times.” - 7 RAR, Jun 70.

353. “The cordon/search was unusual in that three adjoining villages were searched on successive days. This was done by cordoning one village and ambushing outside the others. There was an enemy threat of always one company that could attempt to either enter or leave the villages during the operation. The night before the first cordon, elements of D440 had entered one village and attacked the PF post killing several with RPGs and AK47s. A further effort was made during our cordon.”- 5 RAR, Dec 69.

354. "The advantage lies with the enemy who wishes to evade, and/or has carefully selected and camouflaged hides for people or materiel. A proper search can not be rushed. For an area of particular search interest it is often worthwhile putting a different company over ground previously searched by another sub-unit. A fresh look may well find items missed the first time." - 7 RAR, Aug 70.

355. "Emphasis on body count statistics fosters a weakness in searching. Such units are always eager to find the enemy and raise their casualty statistics. It must be constantly impressed on all soldiers that the enemy camp or bunker system is like an iceberg - the items found easily are like that part of the iceberg above the sea - there is much more, carefully hidden. Thoroughness and patience are required." - 7 RAR, Jun 70.

SECTION 3-9. OPERATIONS WITH INDIGENOUS FORCES

356. Operations in or adjacent to populated areas and areas of civilian access required that a spirit of cooperation and trust be developed as quickly as possible. Small advisory teams from battalions working with Regional Force (RF) and Popular Force (PF) did much to build cooperation and raise the standard of local forces. It was considered that the following should be borne in mind:

- a. Good coordination at all levels is probably the most important factor in achieving cooperation. All Vietnamese local forces had a relatively complicated chain of command.
- b. Cooperation and liaison amongst the various branches of local forces was seldom apparent.
- c. On operations, integration may be better than segregation, even though communication will be difficult. The ability of local forces may best be improved by example and by on-the-job training in integrated rifle sections.

Extracts From After Action Reports - Liaison with ARVN

357. "The dangers of laying unmarked minefields, and of not recording booby trapped areas and minefields, were most apparent. Phuoc Tuy Sector HQ confirmed that ARVN troops were responsible." - 1 ATF, Oct 66.

358. "Ambushes were conducted every night within the villages. Careful coordination with the District Chief and local authorities is essential. A balance however has to be struck between how much of future intentions has to be given to any outside source to ensure no other SVN forces are operating in the area with the need to ensure some element of security and surprise. Once plans are discussed too openly with local authorities it may be assumed that any surprise is lost." - 5 RAR, Jun 69.

359. "Throughout the operation close liaison was effected with district officials and efforts were made to increase the effectiveness of regional forces by working in close proximity to them while ensuring that they retained responsibility for operations in their assigned areas. Results were encouraging; at the conclusion of the operation an RF company effected relief in place with a company of ours." - 8 RAR, Mar 70.

360. "Daily liaison with District Chief and District Senior Adviser is essential if close and harmonious working is to be achieved. A roving battalion liaison officer is required for the coordination of ambush locations, gathering of intelligence and passage of information." - 7 RAR, Jun 70.

361. "Joint patrols and ambushes can be effective once mutual confidence has been built-up by daily liaison with RF companies. Joint operations lead to an increase in morale of local forces with consequent deeper patrolling by them." - 7 RAR, Jun 70.

SECTION 3-10. MINOR TACTICS

362. **Passage of Information.** It was agreed that all officers and NCOs must understand the importance of the free passage of information. The platoon and company commanders must appreciate that battalion and task force commanders require the most complete and up-to-date information to enable them to make sound decisions. On

the other hand, commanding officers and battalion command post staffs must appreciate that information must travel downwards as well as upwards. The passage of information should be carried out without irritating demands on sub-units or frequent calls for progress reports.

363. **Drills.** There was agreement that there appeared to be too much emphasis in training on contact drills. It was emphasised that contact drills as taught are only a guide to battlecraft, and that ground and circumstances will always dictate the action on contact. Gun group to the right or high side will seldom be practicable in other than a light contact.

364. **Sentries.** It was considered that sentries should be sited in pairs by day and night with the incoming sentry being woken and escorted to the sentry post by the outgoing sentry. The system of weapon changeover was considered to be wrong; personal weapons should not be handed over in succession by sentries.

365. **Reading of Sign.** Few soldiers had the ability to read sign accurately, and this often led to misreporting. A realistic assessment of age and a differentiation between 'many and few' was considered the minimum standard required. Much more experience and training in this skill was required for the infantry soldier.

366. **Opening Fire and Fire Control.** Often, fire was opened too early, resulting in many opportunities being lost. Perhaps the emphasis on mechanical target ranges and sneaker courses conditions soldiers to this when moving. The conference agreed that concerted fire required in an ambush must be practised as part of the normal teamwork of a platoon and company. Fire control was often difficult in the attack due to noise and dispersal. This must also be practised. Beyond 50 m, own fire was not as effective as it should have been.

367. **Camouflage.** A better material for skin camouflage was required. None of the issued creams stayed on for long under tropical conditions. Cover from view was considered a lost art and any standard reached in training tended to deteriorate rapidly unless constantly checked and insisted on by all levels of command.

368. **Noise.** The human voice and movement were the two noisiest factors in the bush. Good battle discipline should ensure quietness but it needed continual emphasis, particularly during protracted ambushing. The identification of natural and enemy noises is also important.

369. **Illumination.** Illumination was recommended by most, but discarded by some who felt it was a two-edged weapon in close country and much diminished in value by the availability of aids such as the Starlight scope. The M79 flare and the M49 ground flare were both excellent. Various effective command detonated systems were used for ground flares.

370. **Marrying-Up Procedure.** This became part of standing operating procedures (SOPs) in all battalions and, if followed, clashes were avoided.

371. **Digging.** The digging of shellscrapes or stage 1 fire trenches was dependent upon the attitude of particular battalions. Some were adamant that to defeat the enemy use of directional mines, every soldier must dig in during long and overnight halts. In other years, battalions felt the enemy threat did not warrant such labour. A decision made not to dig in is at best a calculated risk against an enemy capable of mounting attacks using light mortars, directional mines and rocket propelled grenades (RPGs).

372. **Navigation.** It was agreed that there is no easy alternative to compass bearings and pacing for accurate navigation. The training pamphlets were good, but more practice in close country in Australia was needed.

373. **Snipers.** Snipers were used most effectively by the enemy and by some US units. The nature of the war in certain parts of the province at times lent itself to sniper tactics. Small enemy groups at medium to long ranges were considered ideal targets for snipers trained in teams and prepared to operate independently. Some special items such as night vision equipment and noise suppressors to assist in concealing the sniper's position would be necessary for such operations.

Extracts From After Action Reports - Minor Tactics

374. "More training in navigation in close country is required."
- 1 ATF, Oct 67.

375. "Patrols must be more accurate with their navigation. If there is any doubt whatsoever, and providing the tactical situation allows it, marked missions or aircraft map spots are a must. On two occasions during the operation, patrols were misplaced by several hundred metres. This necessitated CHECK FIRING during the registering of DF tasks even when the normal safety margin of 1 000 m clear for the first round had been allowed." - 4 RAR, Mar 69.

376. "The picto-map is extremely useful in areas containing a variation in vegetation. However, users should be aware of considerable inaccuracy in creek lines and junctions. A picto supplemented with aerial oblique photographs is a real asset." - 7 RAR, Dec 70.

377. "Contact drills, although well executed in this operation, are little value unless there is immediate follow up action by the section/platoon commander. There is a need for commanders at this level to be well practised in the actions necessary to complete the engagement after the initial contact drills are completed." - 6 RAR, Jul 66.

378. "As a direct deduction of the action it is suggested that thought be given to a system of whistles and passing of orders from man to man when in contact rather than our present system of section and platoon commanders shouting orders - such shouting tends to draw the fire of the enemy towards our leaders. The enemy used whistles, did not shout and had good fire control." - 7 RAR, Aug 67.

379. "Maximum insertion of rifle companies by foot should be employed if any form of surprise is required." - 5 RAR, May 67.

380. "Following long periods without contacts, there is a tendency to move too fast and the forward scouts often move faster than they would normally. On approaching a possible bunker location, the movement must be conducted slowly and thoroughly with great care exercised during the final stages of the approach. Planning, searching and checking must be done as thoroughly as possible and where necessary reconnaissance by fire and movement should be conducted into suspected areas." - 6 RAR, Mar 70.

381. "Aggressive patrolling by night as well as static ambushes in location throughout the night throws the enemy off balance and makes VC activity and liaison more difficult." - 7 RAR, Dec 70.

382. "Lives will be lost if a shell scrape is not dug on every occasion." - 3 RAR, Mar 71.

383. "The concept of RIF operations against a local force guerrilla unit needs careful consideration. On intelligence provided for this operation, it was thought that D445 battalion could be located in up to company-sized bunker systems. This proved to be incorrect and whilst it is estimated there may have been up to two companies of D445 in the area, it became obvious that the enemy was both living and moving in small groups of three to six and therefore conventional RIF type operations stood little chance of success against such small packets of enemy who could easily evade searching troops. It is therefore intended, on future operations against an enemy of this nature, to concentrate on ambush along the tracks which he consistently uses." - 5 RAR, Apr 69.

384. "The night insertion of the blocking position around the Nui Nhon feature was an interesting operation. It should be realised that most of the movement was conducted in or near rubber, which it was realised would assist control. Further it was done on a very bright moonlit night. I would not wish to tackle a move of large numbers over long distances in the jungle on a dark night. I feel that would invite disaster. However I am satisfied that given the control and light conditions evident here the operation is completely feasible and likely to be, at times, quite valuable." -4 RAR, Sep 68.

385. "The approach march of the whole battalion to the operational area silently and secretly, worked excellently. There is no doubt whatsoever that the (VC) company contacted initially had no knowledge or suspicion that an enemy (Australian) force in strength had entered what had obviously been to him a safe transit area of long usage. Provided timely, accurate and detailed intelligence of the enemy is available, this method of deployment can hardly help but set the stage for a successful operation. It means individual troops carry heavy loads but the rewards are usually worth the extra effort." - 6 RAR, Jul 66.

386. "Joint patrols of SAS and the tracker platoon were conducted within the AO with success. The patrols were valuable as they raised considerably the patrolling skills of the tracker platoon. They confirmed the patrol training of the soldiers so that independent five man reconnaissance and ambush groups were able to be used in the Nui May Tao Mountains. This type of patrol activity was so successful that it could be further studied within the infantry battalion." - 6 RAR, Nov 69.

387. "Extremely close coordination is required when sub-units from different units are working in close proximity to each other. For maximum safety one sub-unit must have at least one radio on the other sub-unit's internal net." - 4 RAR, Jun 71.

388. "Staff shortages did not permit deployment of liaison officers to flanking battalions, or to RF posts located within the AO. Despite this, very effective liaison was established by daily visits to and from units and regular interchange of information obtained by flicking on to other units nets regularly." - 5 RAR, May 69.

389. "The continuing need for certain riflemen to have the specific task to look for snipers in trees." - 5 RAR, May 69.

390. "Any air resupply warns the enemy of friendly troops in the area. Resupply should be as infrequent as possible. Companies should be prepared to carry a minimum of seven days rations. A light weight ration pack would be of great assistance in carrying the required number of rations." - 7 RAR, Apr 70.

391. "After contact, when it is unlikely that major bunker systems will be encountered, the sweep, search and follow up must be quick

and aggressive or a lot of enemy will escape with most of their equipment. Waiting for illumination from aircraft or first light will inevitably result in negative results except blood trails.” - 7 RAR, Dec 70.

392. “Some problems were encountered in marrying-up platoons in safety, despite rigid procedures and radio communications. Visible recognition marks such as coloured hat bands assist in preventing the over-reaction which is natural after a contact.” - 2 RAR, Apr 71.

393. “Contact with local enemy forces will be fleeting and the well aimed shot is still the basic requirement in contacts.” - 3 RAR, May 71.

394. “There is no doubt that the wet season is a pervasive factor in operations and must always be considered and allowed for, be it, for example, in the employment of armour or air, in the replacement rate of radios and handsets, or construction of field defences. However, although pervasive, it is not over-riding and there is very real danger of grossly overcompensating for the wet.” - 3 RAR, Jul 71.

SECTION 3-11. COOPERATION WITH OTHER ARMS

Infantry - Armour Cooperation

395. **Tanks.** Tanks were of tremendous value, particularly in assaults on bunker systems. They were able to clear and prove a path through anti-personnel mined areas, clear bunker strong points as well as remove the vegetation and camouflage with canister. At times, mostly in the wet, their movement was slow and they were subject to mechanical breakdown. They also needed guiding in by helicopter in order to arrive at a contact in time to be of value. Notwithstanding this, their arrival during a bunker attack was a big boost to morale and caused a sudden loss of interest in fighting on the part of the enemy. Formations and cooperation techniques varied from use of tank liaison officers, to radios and target indication by M79 rounds. A real problem was the inability of the infantry to communicate with tanks using the installed tank/infantry telephone.

396. **APCs.** The major use of the APC was for movement of infantry, although some very effective independent operations were carried out by APC troops. The following observations were pertinent to the use of APCs:

- a. *Drills.* Mounting and dismounting drills, although practised in Australia, were often neglected after a few months in Vietnam. A company dismounting drill was needed.
- b. *Troop Carrying.* The question of travelling in or on the APC became largely one of preference, except where travelling inside was used for deception on operations close to or in populated areas. Fear of the antitank mine should be tempered with the thought of the more prevalent antipersonnel mine and the chance of being engaged with small arms fire if riding outside.
- c. *Navigation.* The compass was useless in the APC and the rate of advance seemed to change constantly. Infantry tended to underestimate the distance travelled; APC crews, not being used to foot movement, tended to overestimate. A better navigation system was required for APCs.
- d. *Communications.* Infantry needed to be more practised and confident in the use of the vehicle radio equipment. Occasionally there was a reluctance by some junior infantry commanders to wear the headsets provided.
- e. *Command.* On the move, the senior armoured officer or NCO commanded. On contact the immediate action was controlled by the armoured commander. After the immediate action the infantry commander, normally senior to the armoured commander, reacted as the situation required.
- f. *Contacts.* Infantry commanders must remember that the APC is not a tank or even a fire support vehicle (FSV) and cannot sustain or administer punishment in a like manner. However, the APC does afford considerably more protection than a green shirt, and the machine guns do produce effective and sustained fire. Allotting APCs the role of tanks when bunker systems were assaulted was often not

successful. When used in conjunction with tanks, APCs delivered infantry onto an objective in relative safety.

- g. *APC Ambushes.* There were many successful ambushes using either APCs alone or combined APC/infantry groups. An APC/infantry ambush offered the best all round solution with heavy fire power, transport for many Claymores and protection by the infantry against the short range anti-tank weapon. APCs also provided an excellent firm base for a follow-up, particularly when a company was involved and the company headquarters including the forward observer (FO) party was based on an APC section. However some battalions, although recognising the success of some combined ambushes, felt strongly that each arm should be used on separate tasks without being disruptive to each other. It was felt that the disruption could be overcome by cooperation and training.

397. "Once a good understanding of how each other operates is achieved the use of armour in support of infantry is only limited by the imagination and enthusiasm of all concerned, and the need to adequately maintain the mechanical performance of the vehicle." - Armoured Troop Leader, 1970.

Extracts From After Action Reports - Armour

398. "The value of armour was once again proven. As usual the vehicles performed extremely well in operations with infantry in quite difficult terrain. The decision to attach a troop of APCs to the engineer squadron for protection and route surveillance on route 23 was well rewarded. It is doubtful whether the engineers could have made such progress unassisted." - 5 RAR, Apr 67.

399. "Dismounted armour liaison officers from the cavalry squadron were used to move with infantry companies when they had dismounted from APCs. This proved highly effective in solving communications problems which have occurred in the past. It is suggested that whenever possible, this means of control be employed in the future as a standard infantry/armour technique." - 5 RAR, Apr 67.

3100. "The value of tanks in support of infantry was again proven when the support section of one company, after being pinned down by intense enemy fire, was, with the support of a troop of tanks, extracted without casualties. We have found that tanks, with route guidance from an airborne observer, can traverse most of Phuoc Tuy province even in the wet season." - 8 RAR, Jul 70.

3101. "The value of using tanks, supported by infantry, to attack and destroy occupied bunker systems was again proven. Close coordination between armour and infantry is essential." - 4 RAR, Jul 71.

3102. "APCs continued to prove their mobility and flexibility during the wet season. The majority of company insertions continue to be made by APC rather than the more insecure helicopter. Continued use of the same road or track by APC invites enemy mining operations which was experienced once during this operation." - 3 RAR, Jul 71.

3103. "The enemy under constant pressure, moved between hiding places with great speed; there is evidence that on one occasion elements of D445 ran through our artillery fire in order to escape searching troops and to avoid blocking ambushes. Very fast reaction and maximum mobility are essential if such an enemy is to be trapped and forced to fight. APCs were of considerable value both as a means of achieving this mobility and as blocking forces." - 8 RAR, Mar 70.

3104. "Tanks again proved to be invaluable both in clearing and escorting APC borne troops over suspected mine areas." - 5 RAR, Apr 69.

3105. "This operation positively demonstrated a requirement for tanks. The terrain and vegetation especially for a Centurion tank would have offered little or no impedance to tank tactical movement. Its armour would almost certainly have protected the tank itself and its armament would have been ideal to destroy the enemy defences and the support weapons which were being employed, including the 75mm RR." - 6 RAR, Feb 67.

3106. "The need for sufficient time for infantry and tanks to marry up in the assembly area. Two of the three tanks became unserviceable and their replacements arrived as the company was about to leave without them. The *ad hoc* troop performed extremely well. However, for a while the platoon commanders were confused by tanks using different call signs to their markings. This was subsequently rectified." - 5 RAR, Jun 69.

RESTRICTED

3-25

3107. "Strict control must be maintained when armoured/infantry are on joint operations in the application of prophylactic or speculative fire. The tendency is for inexperienced gunners who have no definite target to engage, (fire) indiscriminately without considerations of troops' safety." - 3 RAR, Apr 68.

3108. "Tanks should move ahead of infantry in APCs creating new mine-free tracks for the APCs to follow." - 1 RAR, Jul 68.

3109. "Tanks were used extensively in the whole area. Their manoeuvrability was somewhat limited by large streams but it was always found to be worth the effort to get them there." - 9 RAR, Jun 69.

3110. "With intimate armoured support in blocking positions, arcs of fire must be closely coordinated. On one occasion infantry received "over" from canister shot fired by the Centurions." - 4 RAR, Mar 69.

3111. "When using a force of infantry mounted in APCs the movement and deployment are enhanced if:

- a. Commander of the force is airborne in a helicopter to direct the movement of the APCs along the best tactical route.
- b. Helicopters are made available on short notice to move infantry groups to provide blocking positions against which the APCs can sweep." - 6 RAR, Nov 69.

3112. "Besides being an infallible cure for enemy constipation canister fire from tanks does much to alter the geography. Undergrowth is smashed away; trees felled and a general improvement in going and visibility achieved." - 7 RAR, Oct 70.

3113. "Tanks still need infantry support in secondary jungle but this vegetation is no bar to their movement providing high ground is selected." - 3 RAR, Jun 71.

RESTRICTED

Infantry - Artillery Cooperation

3114. The real lesson of infantry-artillery cooperation was that of 'togetherness', the close affiliation which in past years had been neglected, except during annual exercises. Uses of artillery fire varied with battalions, enemy activity and own force's reaction at a particular time. Observations on infantry/artillery cooperation are shown below:

- a. The daily visits to battalions by artillery unit commanders were invaluable for the sharing of views and setting of operational priorities.
- b. The integration of battalion command posts and battery fire control centres was most effective, particularly for maximising the effective use of available communications. For example when a company commander's radio was put out of operation, the FO's set was used to speak directly to the battalion commander, and *vice versa*.
- c. The provision of FOs was a problem in that it was often difficult to meet all infantry demands. FO parties were worked hard, and although some patrols had to rely on infantry officers for direction of artillery fire, artillery FOs were preferred.
- d. Some battalions gave control of mortar fire to the battery commander. This allowed the incorporation of mortars with artillery nets. Also it allowed FOs and MFCs to use the same procedure for calling fire and allowed the battalion command net to be left free of all unnecessary traffic. It is worth noting that this system was successful where a very high degree of cooperation and mutual respect between the arms already existed.

3115. **Clearances.** The clearance system used with all artillery units was the same. Ground clearances were the responsibility of the force occupying that ground. Air clearances were the responsibility of artillery tactical headquarters (artytac) who had been incorporated into the Nui Dat air warning system. The procedure for ground clearances was as follows:

- a. The observer (artillery FO, airborne officer or MFC) requested a fire mission from the direct support (DS) fire unit. This net was normally monitored by the fire control centre (FCC).
- b. The FCC compiled all relevant detail on a clearance request proforma for the battalion duty officer, who was responsible for ground clearances within the battalion area of operations (AO). Once checked and cleared, the proforma was returned to the FCC. Concurrently, the FCC requested air clearance from artytac on the regimental net.
- c. On receipt of these clearances, the FCC then passed them to the fire unit and the mission commenced.

3116. This procedure was quick as the duty officer was normally located within the FCC.

3117. **Naval Gunfire.** This was primarily controlled by artytac through the attached Naval Gunfire Liaison Officer. Opinions on the effectiveness of the fire varied. It was probably most effective when used on harassing and interdiction missions in known enemy base areas.

3118. **Safety.** There were a number of safety procedures that were introduced during the Vietnam conflict. These were:

- a. *Safety Distance.* Safety distances made allowances for artillery/mortar/air projectiles, and infantry navigation errors. The distances shown are applicable to opening rounds in relation to proximity of friendly troops:

(1) 105 mm/81 mm	1 000 m
(2) 155 mm/8 in	1 500 m
(3) 175 mm	2 000 m
(4) Observed airstrikes	1 000 m
(5) Unobserved airstrikes	1 500 m.

- b. *Civilian Access and Curfew.* To allow civilians the right to tend their crops and gardens, areas were designated for civilian access during certain hours. The safety rule for these areas was that no artillery round could be fired into a civilian access area during the hours specified, unless friendly troops were in contact and were taking casualties. Normally, illumination rounds were fired at the beginning of curfew to warn civilians of the time. The rule also specified that a time buffer of 15 minutes either side of the hours of access would be added to ensure complete safety for civilians.
- c. *Close Targets.* Safety rules for close targets (where fire is brought close to our own or friendly troops) stated that FO and MFC would not be allowed to fire on targets closer than 600 m to own troops except in emergencies.

3119. Effect of Artillery and Air Strikes on a Bunker System.

The following paraphrase of a report by a battery commander illustrates the effect of medium and field artillery and aerially delivered iron bombs against a well dug bunker system:

- a. Artillery resources used from two fire support bases, one of which was a step-up were:

- (1) Section 105 mm howitzers
- (2) Two sections 81 mm mortars
- (3) Battery 155 mm self-propelled(SP) howitzers (US)
- (4) Platoon 8 in howitzers (US).

- b. The system consisted of a large number of bunkers in two groups and a sapper training area of wire obstacles and mines. The company was deployed well north by APCs and walked into a company assembly area to the north west of the target area. On the night before the attack close reconnaissance of the system was conducted. At 0700 hours the following morning the major air and artillery strike was conducted.

- c. *Sequence of Events.*

- (1) The air strike commenced on time at 0700 hours, with the battalion CO in the DS helicopter marking the target for the forward air controller (FAC).
- (2) The battery commander was airborne in the command and control aircraft as the fire controller possessing communication to all fire units, including aircraft and light fire teams (LFTs).
- (3) The air strike was very accurate and 16 x 500 lb High Drag bombs were placed on the target area.

- (4) As the FAC and strike aircraft departed, each battery fired one round for adjustment and when all were adjusted, the fire plan commenced. All rounds were observed to land in the target area.
 - (5) As the artillery started, the rifle company commenced movement from the north and north west.
 - (6) The programme went as planned except that the 155 mm fire was extended for two minutes. LFT then provided fire support for the company onto the bunker system.
 - (7) Constant smoke marking of the centre and both flanks of the advancing company proved invaluable for the battery commander as a safety guide.
- d. *Results.* The primary jungle and secondary growth surrounding the target area were almost totally destroyed. Large trees were shattered at their base and had fallen across the system. No bunker received a direct hit. Very little structural damage was done to any bunker. A 500 lb bomb fell within 3 m of one bunker but nothing more than a few cracks and shifting of the overhead protection resulted. The only cratering was from the bombs and the 8" rounds using concrete-piercing fuse.
- e. *Summary Of Rounds Fired.* A summary of rounds fired is shown in [Table 3-1](#).

Extracts From After Action Reports - Artillery and Mortars

3120. "It is felt that the part played by artillery in the action was decisive in swinging the battle to our advantage. It is probable that many casualties were caused by artillery fire on enemy elements directly in rear of the troops in combat. Artillery was finally adjusted very close and one gun to (within) 60 m of our own troops. This caused the enemy to withdraw." - 7 RAR, Aug 67.

TABLE 3-1 SUMMARY OF ROUNDS FIRED

Round type (a)	Round Size				
	105 mm (b)	155mm (c)	8 in (d)	81 mm (e)	Air (f)
HE PD ¹	102	110	40	360	
HE DELAY	304	110			
HE CP ²			40		
500 lb Bombs					16
Totals	406	220	80	360	16

NOTE:

1. PD = Point Detonating (Fuse)
2. HE CP = High Explosive Concrete-piercing

3121. "The operation was successful though there were insignificant results. In particular the artillery preparation of the LZ was most effective." - 6 RAR, May 69.

3122. "Although the use of artillery in the mountains was watched carefully, no major problems were encountered in the use of high angle fire and it proved most effective." - 5 RAR, May 69.

3123. "Much of the success achieved in forcing large numbers of VC farmers to Chieu Hoi (surrender) was due to a large expenditure of carefully planned artillery and mortar H & I tasks. The tasks were designed to let the VC farmers know we were after them, but not hit any suspected locations. No VC farmer was hurt during the difficult phase but almost 100 were either captured or Chieu Hoi'd." - 5 RAR, Sep 69.

3124. "Artillery used in a cut off role played an important part in dealing with the enemy after he evacuated his first strongly prepared position. Blood trails commenced where the cut off rounds had landed. Although only about 20 VC evacuated the first camp, approximately 50 fled from the second camp." - 7 RAR, Jun 67.

3125. "In mountainous country, it was difficult to direct fire. Ridges and valleys made the observation of the fall of shot difficult and echoes made ranging by sound difficult. On contact it was necessary to have the battery commander airborne as soon as possible to direct fire." - 6 RAR, Dec 69.

3126. "When establishing a fire support base, there is insufficient time in one day to recce and prepare the site for the reception of all the elements. Deployment over a longer period with spaced insertion of each different element is necessary to allow the reconnaissance parties time to properly prepare for the arrival of the main body and then deploy them to a plan. This is especially important when additional armour and artillery are allotted." - 6 RAR, Dec 69.

3127. "Artillery/mortar fire can be constantly employed in conjunction with gunships." - 3 RAR, Mar 71.

3128. "A timed programme is unsuitable for a company attacking bunkers. It must be fired as required and controlled by a command and control helicopter." - 3 RAR, Mar 71.

3129. "With the loss of the general support field battery from 1 ATF, mortars are playing a more important role. During most of the operation only one section of guns was in direct support and the mortars, mounted in carriers, proved invaluable in extending gun range and covering gaps in gun cover. The APC mounted mortar section can be unobtrusively inserted into a new area using the cross country mobility of the APC. However, accurate LOCSTATS for mortars used in this fashion remains a problem. An aerial mapspot is always used, and the position verified by artillery mark missions or artillery survey when the need for concealment of their presence has passed." - 3 RAR, Jul 71.

3130. "The selection and sighting of mortar base plate positions particularly in the wet season must be undertaken with considerable care. An area that would appear to be suitable from air and map reconnaissance will often be too soft since the water table is sometimes only a few inches below ground level. Confirmation of the suitability of an area should always be carried out by an experienced member of the mortar platoon before mortars are moved. Extensive preparation of base plate positions even in suitable areas is often required by way of cut logs and timber. These have to be placed beneath base plates to minimise sinking." - 7 RAR, Aug 67.

3131. "Good use was made daily of mortar APCs to deploy temporary base plate positions away from the FSPB. Escort was provided by two sections of APCs. Again, the mortar APC was used to provide a suitable mounting from which "charge nine" could be fired." - 5 RAR, Sep 69.

3132. "The terrain in mountains causes gaps in fire support and communications. Great value was obtained by deploying a small fire support base with mortars and a relay station forward on to the highest point of the mountain as early as possible. This overcame the problems of defiladed areas. The mortar section based on top of the Nui May Ta fired 21 contact missions." - 6 RAR, Dec 69.

Infantry - Engineer Cooperation

3133. "Engineer teams were scruffy, but first rate. We relied on them so confidently that there is not much else to say" - Rifle Company Commander, 1970.

3134. The role of engineers in support of an infantry battalion varied from the full range of traditional sapper roles in the early years, to tasks of a more limited nature by 1970-71. This section deals only with field engineer support. The major sapper tasks were:

- a. mine and booby trap detection and neutralisation;
- b. bunker search and demolition; and
- c. destruction of unexploded bombs (UXBs), blind and misfired ammunition.

3135. **Organisation.** The engineer groupings and capabilities were as follows:

- a. *Splinter Teams.* A splinter team (ST) consisted of two sappers. The first was relatively experienced and was referred to as the No 1. He was responsible for all engineer advice given to a company commander in the field and also for the command of the ST when engaged on engineer tasks. The second member of the team was called the No 2 and may have had very little practical combat engineering experience. The No 2 was expected to assist the No 1 in all tasks and by so doing should eventually acquire sufficient skill and experience to assume the role of No 1.

- b. *Equipment of the ST.* The ST normally travelled with the company headquarters and remained with the company for the duration of the operation. Their equipment consisted of:
- (1) personal weapons, ammunition and equipment;
 - (2) bayonet (used in probing for mines);
 - (3) demolitions equipment, including sufficient explosives and accessories to carry out immediate demolitions of bunkers, blinds, mines and UXBs;
 - (4) pulling cord; and
 - (5) current minefield data and mine incident map for the AO.
- c. *Mini Teams (MTs).* An MT was an ST carrying more counter-mine equipment and normally operating in support of tanks or APCs. The variation in designation refers only to this different role, and a team employed as an MT one day could be used as an ST the next day. An MT carried the same equipment as an ST and in addition:
- (1) one mine detector,
 - (2) flak jackets; and
 - (3) steel helmets.

d. *Skills of STs and MTs.* STs and MTs were trained in the following skills:

- (1) Detection of mines and booby traps by manual or electronic means.
- (2) Neutralisation of mines and booby traps.
- (3) Visual detection and recognition of enemy mine and booby trap signs.
- (4) Detection of tunnel, bunker and cache openings.
- (5) Searching tunnels, bunkers and caches.
- (6) Planning and executing the demolition of tunnels, bunkers and caches.
- (7) On the spot destruction of blinds, UXBs, and misfires. However, they were not qualified to move or otherwise tamper with blinds or UXBs.
- (8) Preparation of helicopter landing zones (Lzs).

e. *Combat Engineer Teams.* A combat engineer team (CET) was made up of one NCO and six sappers. The six sappers could be employed as three STs, three MTs or a mixture of both. A CET would normally be deployed for a specific task which was judged to be beyond the capacity of the allocated ST or MT. Tasks for a CET could include the clearance or destruction of a large bunker system or tunnel complex.

3136. **Employment.** STs and MTs were used on RIF operations with companies operating in depth. A back-up CET was held at an FSB. During operations close to or in the populated areas, teams were used to clear a path into and out of the ambush positions, support overnight ambushes in areas where the mine threat was high, and assist in searches.

3137. **General Problems.** The following common problems were experienced:

- a. *Status of Sappers.* When sappers were deployed in support of other arms they should have been reserved for the specialist tasks for which they were trained. Their training as infantry was designed to enable them to protect themselves, not to provide extra riflemen for company headquarters. The tendency to consider them as additional firepower for the group and as ammunition bearers for the machine gunner had to be overcome. Sappers should be employed so that they are able to utilise their specialist skills when required.
- b. *Destruction of Bunkers.* When a bunker system was located the engineers generally wanted to destroy it as soon as the search was concluded. The following observations in relation to this practice of immediate demolition are worthy of note:

- (1) Destruction guaranteed immediate denial to the enemy of living and fighting accommodation, the construction of which was normally tedious and time consuming.
- (2) If a system had not been used for some time, but was still in usable condition, it should have been destroyed. Otherwise it provided ready accommodation to enemy moving through the area. It is worthwhile noting that the VC had an excellent knowledge of the countryside and location of their usable bunkers. They were able to find these systems again with greater accuracy and speed than the engineer teams could ever hope to achieve.
- (3) An argument proposed for leaving bunkers intact was the enticement to the VC to return to a detected area. Supposedly, this lost them the tactical advantage when they returned to an already detected bunker system, thus enabling their destruction. This may have been true when there were only a few systems in Phuoc Tuy Province. Unfortunately it was not possible to provide adequate surveillance of the hundreds

of systems that were left intact, and at the same time be aware of the enemy's return.

- (4) Infantry working in depth could not allow the noise of a bunker demolition to divulge their presence in an area. However, if a bunker system showed signs of recent occupation, the VC had probably detected a hostile presence and departed the area. A suspected enemy area was often subjected to harassing fire until a friendly force moved into it. Furthermore, it was accepted that the VC often returned quickly to a bunker system that had been demolished to assess the damage. An option was to place ambushes around demolished systems for a period of time. On the occasions that this tactic was employed it proved to be successful.

- (5) It was more economical to demolish bunkers when found, while the specialists and equipment were either available or on call, than to leave the system intact. If the system was demolished later, considerable effort had to be expended in locating and searching it again before destruction.

- c. *Destruction of Explosive Munitions.* Mines claimed a disproportionately high percentage of Australian casualties. The simplest way for the VC to obtain these mines was to pick up blind munitions and construct mines to their own requirements from the salvaged explosive. A 750 lb aerial bomb contains enough explosive to make a large number of antipersonnel mines. Some blinds and munitions did not even have to be tampered with by the VC to be lethal. A cluster bomb unit lying in the undergrowth was very difficult to see and a misplaced foot was enough to set it off. It was considered that all explosives found in the field should be destroyed before they can be used against friendly personnel. Frequently, an infantry commander told his sapper adviser that there was not enough time to blow blinds and other munitions. On many of these occasions it appeared to the sapper adviser that the headlong dash had no other reason than

the commander's compliance with a lifetime of infantry habits.

- d. *Mines.* It is generally believed that in Vietnam the antipersonnel mine threat was greater than in any previous conflict. Even if the mine threat was not as great as sometimes imagined, more casualties resulted from mine incidents than from any other single cause.

Extracts From After Action Reports - Engineers

3138. "Mine detectors should accompany all platoons and patrols. At some stages we had fourteen detectors in continuous use - some of these were borrowed from 6 RAR. Continual redeployment of detectors and operators took place to reposition from daylight to night tasks. These detectors were invaluable and saved many casualties. In the last two weeks of the operation all ambush sites were swept before occupation, the route in and the route out were also swept." - 5 RAR, Jun 69.

3139. "When a detonation occurs all troops must remain still as the VC invariably plant mines in groups. Unfortunately movement is difficult to control, especially if the commander is a casualty - the courageous soldiers tend to immediately do the human but wrong action of moving to the assistance of the wounded. In two major casualty producing incidents, lanes were cleared from the detonation area to the DUSTOFF area; in one case later investigation showed an M16 mine still existed in one of the lanes. In the other which was prodded, carefully by hand, the lane and LZ area were well cleared and delineated by packs and weapons of the wounded - however after the DUSTOFF had been completed the NCO responsible for the excellent organisation moved outside the area cleared and detonated a second mine." - 5 RAR, Jun 69.

3140. "Soldiers operating in mined or booby trapped areas must remain constantly vigilant. The majority of our casualties during this operation resulted from a single mine incident which occurred in an area which had already been checked for mines." - 8 RAR, Feb 70.

3141. In a May 1970 report by 7 RAR labelled "*Mine Incidents*", the following points were noted:

- a. When operating in a known or suspected mined area slow and methodical movement must be accepted in the tactical plan.
- b. Tanks are valuable in the quick clearing of an anti-personnel mined area, for example, clearing of DUSTOFF pad.
- c. Bunching causes more casualties. Old lessons are often re-learned painfully.
- d. The training of platoon medics in the casualty wards of civilian hospitals prior to coming to Vietnam resulted in a high standard of handling mass casualties arising from mine incidents.

3142. "Sufficient troops should be provided to permit patrolling in depth outside the land clearing operation. VC interference ceased once he had been driven from the nearby base camps." - 4 RAR, Aug 68.

3143. "A small group of determined enemy can get very close to dozers without detection because of the noise of the operation. Detection must therefore be based on visual means. A minimum of two platoons and at least a section of APCs are required to protect a land clearing team of up to eight dozers." - 4 RAR, Aug 68.

3144. "It was again demonstrated that artillery and air strikes are ineffective for destroying enemy base camps. Complete destruction can only be effected by the use of engineers and demolitions." - 3 RAR, Oct 68.

3145. "In areas that are suspected or known to contain mines, as was in this case, the deployment of engineer/assault pioneer elements carrying detectors down to platoon level is desirable. It is not satisfactory to keep engineer resources centralised either at battalion or company, as rarely can they be deployed to rifle platoons in time to give assistance." - 5 RAR, Apr 69.

3146. "Any route or worksites that had to be used again must be considered as being mined and must be cleared. APCs and dozers must take new routes. Night ambushing of the routes and current and proposed work sites is necessary. A high expenditure of artillery and mortar ammunition on H & I tasks in these areas is a requirement."

- 5 RAR, Jun 69.

3147. "The threat of mines must not be allowed to prevent operations; instead operations should continue with appropriate precautions being taken. During this operation a total of 30 mines or booby traps were located by methodical searching or detonated by either APCs or tanks. Two mine/booby trap incidents resulted in fatal casualties. Field engineer support was outstanding and valuable experience was gained in working with engineers." - 8 RAR, Feb 70.

3148. "In an operation of this nature in a known mined area, mine casualties are expected. The only way the task can be done is to conduct offensive and continuous infantry patrolling by day and night. Troops could remain relatively safe by sitting in battalion and company bases, however, apart from this being a tactical nonsense the end result would be increased mine casualties as the enemy would have complete freedom to move and plant more mines in areas of current and future activities. Every effort must be therefore made to reduce the risk of casualties from mine explosions." - 5 RAR, Jun 69.

Infantry - Army Aviation Cooperation

3149. The prime lesson from a battalion viewpoint was that the light helicopter was indispensable as a mobile observation post and command post for COs.

3150. Rotary and fixed wing aircraft were used extensively for reconnaissance within the areas of operations. Most unit reconnaissance was flown in the DS reconnaissance helicopter allotted to battalions on a daily basis.

3151. The use of the DS helicopter changed over the years and varied with battalions. By 1969 the following system had become, with minor variations, common to all battalions:

- a. The DS helicopter was to all intents and purposes the personal aircraft of the CO. Although the use of the aircraft was coordinated by the battalion Command Post (CP), clearance for its use was made through the CO.
- b. The CO sometimes assumed the responsibility for all routine air reconnaissance, flying at least once per day over the whole battalion area. Conducting reconnaissance from the air is a skill which requires constant practice. There is a need to develop detailed knowledge of a particular area so minor day-to-day changes within that area can be noticed immediately. This presupposes that the one person carries out all visual air reconnaissance within a battalion area.
- c. In addition to this daily reconnaissance task over the AO, the DS helicopter was used by commanders at all levels to carry out visual reconnaissance of a specific area prior to conducting an operation.
- d. The DS helicopter was also used to provide immediate reconnaissance over a contact area. It generally became standard procedure for the CO to fly contact missions himself. Some of the reasons for this were as follows:
 - (1) As a result of his detailed knowledge of terrain from daily visual reconnaissance flights, he was in the best position to advise ground troops on going and likely enemy escape routes.
 - (2) It allowed the CO to be completely familiar with the battle.
 - (3) Decisions on troop safety in relation to artillery and air support could be made immediately.

- (4) Decisions concerning redeployment of troops into the contact area could be made immediately by the CO after he had assessed the situation, thereby saving considerable time.

Extracts From After Action Reports - Army Aviation

3152. "The Sioux (AAAvn) helicopter was used for radio relay, liaison, map spotting companies, indicating targets for airstrike to FACs and controlling artillery fire on enemy camps. In this latter role, the Sioux successfully fired medium guns onto an enemy camp with the result of one enemy KIA. With such use being made of the Sioux it is important for the same pilot to support the unit for as long as possible. On this operation five pilots supported us during the 12 day operation." - 1 RAR, Sep 68.

3153. "Because a Sioux was not available for direct support, reconnaissance was conducted using an RAAF Iroquois shared in direct support with 1 RAR. This proved unsatisfactory, because the intimate reconnaissance possible from the Sioux could not be satisfactorily carried out in the Iroquois." - 3 RAR, Oct 68.

3154. "Although flares from aircraft provide excellent illumination, difficulty is experienced with the subsequent flickering shadows resulting from the drifting flares. This applies in semi-open country as well as close country." - 4 RAR, Jun 71.

CHAPTER 4

ARMY - AIR FORCE COOPERATION

SECTION 4-1. PROCEDURES

401. There is little doubt that joint consultation and planning at all levels with the RAAF was one of the ingredients of our success in Vietnam.

402. Prior to the Vietnam commitment there had been a tendency within the infantry to regard the employment of air support as a rather difficult task shrouded in mystery. As with any other support, all that is required to make effective use of air support is a good knowledge of its characteristics and limitations, and common sense on behalf of the user.

403. Most battalions during training and subsequent service in Vietnam evolved their own methods of employment and control of air resources, though staff procedures were contained in 1 ATF SOPs.

404. It was accepted that there will never be enough aircraft to satisfy all demands and that a degree of centralised control is therefore necessary for the efficient operation of aircraft. This control was effected by the 1 ATF Joint Air Cell at TFHQ, Nui Dat. The air cell allotted priorities to requests and tasked aircraft to provide most effectively and economically the type of air support needed. Close air support should not be requested when ground weapons are able to perform a particular task.

Planning

405. The time spent in planning varied from days, in the case of a deliberate planned operation, to minutes in the case of troops in a contact situation. Whenever possible, a joint planning/briefing conference was held. This conference was the venue for presentation of the operational plan. It also allowed an opportunity to discuss problems and possible solutions. Depending on the nature of the operation and type of air support to be used, the following attended:

- a. Ground commander
- b. Air-mission commander
- c. LFT commander
- d. FAC
- e. Battalion operations officer
- f. Battery commander
- g. 1 ATF GS02 Air.

406. Usually, it was more convenient for representatives to come forward to the battalion headquarters than have battalion officers go back to 1 ATF. The following sequence of events took place prior to the conference:

- a. The CO gave the operations officer the outline plan for the operation and the air support requirement.
- b. Discussions took place between the operations officer and 1 ATF air staff to ascertain availability of air resources and feasibility of the air aspects of operation.

- c. Any required readjustments to the plan were made following discussions with 1 ATF air staff.
- d. The fire plan was developed by the CO, operations officer and battery commander.
- e. Submission of formal air requests was made.
- f. The detailed plan was prepared.

407. In normal circumstances the joint conference was held 24 hours prior to the operation. The formal sequence of events at the conference was as follows:

- a. Presentation of the enemy situation in the AO.
- b. Presentation of the overall battalion plan in outline and the air contribution in detail, including the following:
 - (1) Method of identification of targets
 - (2) Responsibility for the marking of targets
 - (3) Location of friendly troops and the method of identification
 - (4) The location and means of communication with the commander of the operation.
- c. Presentation by the battery commander of fire plan timings and safe areas for aircraft to hold in, or approach from, prior to being employed.
- d. Agreement by the air mission commander to the plan, or any adjustments for technical or safety reasons.

408. In the event of immediate requests for air support, timings were telescoped and briefings conducted by radio as aircraft came on station. To ensure that nothing was overlooked in this radio briefing, a standard format was used.

SECTION 4-2. CLOSE AIR SUPPORT

Procedures

409. **Problems.** There were various problems associated with close air support: safety of ground troops and aircraft, and communications. These problems were more noticeable with immediate requests than with pre-planned requests which allowed time for detailed briefing. The following were specific problems to be overcome:

- a. *Target Identification.* Positive identification of targets from the air, including the accurate marking of the target.
- b. *Identification of Friendly Troops.* Identification of friendly troops in proximity to the target.
- c. *Artillery Support.* A method of employing artillery in the area of the target, without endangering aircraft.

410. It was found by some battalions that the most satisfactory method of identifying targets was to use the DS helicopter. Within a number of battalions, the policy established was for the CO to fly all reconnaissance missions himself, thus gaining at first hand an intimate knowledge and feel for the ground within the battalion AO. On contact, it was normal procedure for the CO to proceed in the DS helicopter to the scene of the contact. As a result of his detailed knowledge of the AO he was in an ideal position to be guided onto the target quickly by the troops in contact. After identifying the target, the CO would then pass over the target at low level and drop white phosphorus to indicate the target to the FAC. The FAC would either use the white phosphorus to indicate the target to the strike aircraft or would fire his own phosphorus rockets into the target area. After the first pass by the aircraft, the CO would return to the target area, assess damage and pass any corrections required to the FAC. This system ensured that ordnance was accurately delivered. It is worth

noting that on some occasions when the Sioux was not available to mark the target with smoke, the strike aircraft did not hit the target.

411. Marking of the position of own troops was a relatively simple matter. On arriving on station the FAC, who had been briefed *en route* on the relative position of own troops to the target area, would call for coloured smoke from each call sign (CS) in turn in the following manner:

FAC : "CS 11 throw smoke".

CS 11: "Smoke thrown". (Smoke grenade released on flanks of position).

FAC : "CS 11 see blue smoke".

CS 11 : "Roger".

412. When the FAC was satisfied that he knew the location of all troops he would state whether or not he required constant smoke and from which location. In the event of a sub-unit moving forward onto an objective under the cover of air support, smoke would be thrown every 50 m as the sub-unit moved forward. This system ensured that the location of own troops was known at all times.

413. Safety to aircraft from artillery fire was ensured by allocating definite boundaries for the aircraft to move within as they approached the target area. This information was passed to the tasking agency when the initial request was made for air support. In addition, a safe holding area outside the gun target line was also allocated. A prominent feature was usually selected. Ideally from this position the pilot could observe the target area and the fall of shot, and become conversant with the battle situation. This system was particularly effective when using fire teams.

414. Communications between ground and air were a particular problem with immediate close air support, when much information had to be passed to an aircraft in a short time. Invariably the ground commander was in close contact, and having made the initial call for air support was extremely busy fighting the local battle. The ground commander did not want to have an aircraft commander join his internal net and tie up the net with a detailed brief for the aircraft.

415. To overcome this problem, the initial request for air support to 1 ATF gave the battalion command net frequency for the aircraft commander to call for a briefing. Initial briefing was often given to the FAC or the fire team leader by the operations officer. This method was used for the following reasons:

- a. It cleared the company net of long transmissions.
- b. The company being supported could monitor the brief being given.
- c. Other sub-units in the area of the contact were completely aware of what was happening, thereby saving further transmission time.
- d. As they were not deeply involved in the ground battle, the battalion headquarters staff were in a better position to prepare the detailed brief required, particularly when there were other sub-units in close proximity to the contact area and detailed knowledge of relative locations was required.

416. After the initial briefing was completed, the FAC or fire team leader changed to the sub-unit net requesting the support and received final orders. As an alternative to being briefed on the battalion command net, aircraft were occasionally briefed from the DS helicopter when the CO was airborne. Under this system, the CO ascertained the requirements of the ground troops, with the DS helicopter pilot briefing the air support aircraft on the UHF band. This pilot-to-pilot briefing on a separate radio net considerably reduced pilot transmissions on command nets. While this proved satisfactory, the obvious disadvantage was that the ground troops could not monitor the briefing.

Fixed Wing Support

417. Planned strikes presented no great problem other than limitations imposed by unexpected weather conditions. It was necessary to have an alternative plan for fire support if the planned strike was part of the fire plan for an air assault. Planned strikes usually arrived on station at the time and with the ordnance requested.

418. On the other hand, a call for an immediate airstrike had several limitations. The first limitation was the requirement for the aircraft to arrive on station. As a rough working figure, the planning time required, from a request leaving a battalion headquarters until the aircraft arrived, was about an hour. The second limitation was the ordnance available. If an aircraft was diverted from another strike there was no alternative but to accept whatever ordnance that aircraft happened to be carrying. For example, an aircraft arriving on station with a complete load of napalm is of less value against an enemy bunker system in bamboo, than a mixed load including HE rockets.

Armed Helicopter Support

419. The outstanding feature of the helicopter as a weapon platform, which distinguishes it from the tank and the fighter ground attack aircraft, is its freedom of movement. It can move sideways, upwards and downwards without the observer losing the target, and use cover as necessary.

420. Some experts are convinced that the armed helicopter cannot survive on a higher intensity battlefield than Vietnam. These conclusions are drawn from US experience in Laos and the A Shau valley. There was agreement that perhaps the solution lies in a change of helicopter tactics, in an emphasis on the tactic of concealment, using every possible means to lower the helicopter's exposure consistent with the accomplishment of its mission. In using this tactic, bad weather will be welcomed rather than avoided. Operations will be carried out in the dark or with only limited illumination. Day missions will be planned more carefully and will be flown at ground contour levels closely following the terrain.

421. **Control.** Ideally it was felt there should be an airborne FAC available to control the fire of gunships. Accurate marking of the friendly troops' area, and the target are essential. When as often happens an FAC is not available control can be exercised by a command and control aircraft, by a light helicopter or by the commander on the ground. The important thing is that the response of the gunships must not be delayed by the controlling agency. The use of the DS helicopter for control proved very effective and flexible. General opinion from all battalions was that gunship support, especially suppressive fire, was excellent.

SECTION 4-3. AIR TRANSPORT OPERATIONS

422. In Vietnam, air transport operations included tactical troop lift, resupply and casualty evacuation.

423. **Tactical Troop Lift.** Techniques varied with battalions, especially in the method of control. One variant was as follows:

- a. *Insertions.* All insertions were controlled on the battalion administrative/air radio net. This freed the battalion command net of all pilot transmissions associated with insertion or extraction technicalities. It meant also that in the event of a contact on or shortly after landing, the command net was free to send situation reports (SITREPs), arrange fire support and other matters associated with the contact without being cluttered by air traffic. It did mean that an additional net had to be monitored in the CP, but this presented no difficulties.
- b. *Control.* Control was exercised by the CO, usually from the DS helicopter. In the event of a requirement for LZ preparation by artillery and air support, a command and control aircraft with a radio configuration capable of providing simultaneous conversations on the battalion command net, battalion administrative air net and the artillery net was used. Usually, the battery commander, assistant operations officer and one other person manned the command and control aircraft, the CO preferring to operate from the DS aircraft. There was a strong opinion that for adequate control of insertions and extractions, the air and ground

commanders had to be in the one aircraft. Others believed there was no need for this, and that any decision required as a result of changes in the plan could be discussed between the CO and the air mission commander in separate aircraft, on either VHF or UHF radio.

- c. *LZ Preparation.* Preparation of LZs by air strike and artillery was not frequent. The surprise gained by aircraft suddenly landing on an LZ outweighed the value of a heavy preparation, particularly as the enemy threat diminished within the province. Additional deception and surprise were also achieved by low-level approaches from an unusual direction (for example, pass over the area completely at height then turn back on a reciprocal heading to the LZ at tree height). As a precaution, however, an on-call fire programme was always prepared and an LFT accompanied the first sortie into the LZ and stood by while succeeding sorties flew in.

424. **Control.** The normal method of control accepted by most battalions was the use of a command and control helicopter in all air assaults. Last minute changes in the direction of approach and actual landing positions caused problems for the ground sub-unit commander, and involved minor changes to his plan.

425. **Air Resupply.** Air resupply was used extensively by all battalions. The system which evolved was simple and effective. Companies would notify the AQ cell of the time, locations and items required, using the administrative/air radio net. If there was to be a backload this was notified when making the initial bid. After checking these requests they were passed by the AQ cell to unit rear echelons at Nui Dat. Nui Dat elements bid for aircraft, assembled, packed and dispatched resupply items to the company concerned.

426. **Aeromedical Evacuation.** Aeromedical evacuation was undertaken by day and night in all types of weather conditions and in all terrain. The only pieces of equipment needed by ground troops to arrange the evacuation of wounded were a radio set and a means of identification, such as smoke or a strobe light. The system used by most battalions for casualty evacuation was as follows:

- a. Immediately it was known that a sub-unit had sustained casualties, a warning was passed to 1 ATF CP to 'STAND BY DUSTOFF'. This allowed air crew to be alerted and thus gain valuable time, particularly at night.
- b. As soon as possible, on the battalion command net, the battalion CP was informed of the number and type of casualties. Information on the extraction point (suitability for landing, requirement for winches or jungle penetrators and number of litters) was also passed on.
- c. The battalion CP prepared and transmitted the formal request for transmission to 1 ATF. An estimated time of arrival of the aircraft at the LZ was also requested.
- d. The sub-unit was informed of the estimated time of arrival of the aircraft as soon as this advice was received from 1 ATF.
- e. Marry-up of the DUSTOFF aircraft and ground troops at the LZ was completed using the sub-unit internal frequency.

427. In most instances casualties were at a medical installation within sixty minutes of being wounded. There is no doubt that this rapid evacuation of wounded, direct to a major medical installation where doctors and equipment were readily available, saved many lives.

SECTION 4-4. CONCLUSION

428. RAAF and Army cooperation in Vietnam reached a very high standard, with members of each Service fully aware of the characteristics and problems of the other. It was acknowledged that success in CRW is often dependent to a great degree on the ability of relatively junior army commanders to plan and execute operations with air support and to take advantage of current information and that if success is to be achieved without heavy casualties to troops and aircraft, the fundamentals of joint operations must be clearly understood. It is also vital that the closest possible liaison is

established between the infantry and the RAAF squadrons providing air support.

Extracts From After Action Reports - RAAF Support

429. "The DUSTOFF aircraft operated under extremely hazardous conditions. The only light available was from two burning haystacks and both pilots (RAAF) exhibited extreme professional skills." - 3 RAR, Feb 68.

430. "Problems were overcome by delivering explosives by Iroquois in slung loads of 800 pounds suspended by a 30 foot strap underneath the aircraft. This enabled the aircraft to deliver explosives through trees to a maximum height of 30-35 feet." - 3 RAR, Apr 68.

431. "When DUSTOFF and LFT helicopters arrive in the designated holding area, the CO flicks to the battalion command net, gives the helicopter a general brief on the situation, generally indicating the target area by dropping a smoke grenade, gets friendly troops to identify their location by smoke then hands the helicopter over to the ground troops on their company internal net. While a company net can at times become cluttered with these aircraft, by net discipline and cutting transmissions to a minimum, no major problems have arisen. It has been found desirable to have other platoons in the company listening out to gunships in the interests of safety. At times other frequencies than the company internal have been used." - 5 RAR, Aug 69.

432. "Strobe lights on issue to platoons proved invaluable for direction of night DUSTOFFs." - 5 RAR, Jun 69.

433. "Much advantage can be gained by a silent airmobile insertion in conjunction with a careful deception plan. Silent insertions were used several times with great effect and on two occasions contact was made soon after insertion." - 6 RAR, Nov 69.

434. "Airmobile deployment during the operation confirmed that there must be adequate control of insertions and extractions with one aircraft holding both the air and ground commanders. There can be no substitute for this requirement or control is rapidly lost." - 6 RAR, Nov 69.

435. "The enemy showed aggressiveness in leaving his bunkers to follow up our withdrawal after the first contact to evacuate casualties and take ammunition resupply. This follow up was close - in one instance for 200 yards, and then hugged our perimeter, engaging DUSTOFF aircraft. This enemy tactic is obviously sound as these elements hugging us avoided the gunships and airstrikes being directed at the bunker camps. This contributed to a very heavy small arms expenditure on our part and full first lines of small arms (ammunition) had to be dropped in the Possum and DUSTOFF aircraft. Rehearsed fire and movement drills were carried out effectively by the rifle platoons and we suffered no casualties while breaking contact. Control of the various movement elements remains the key factor, especially when the forward elements are approaching the rear element securing the DUSTOFF LZ. Bunching of wounded and those caring for them needs watching at the DUSTOFF LZ. On one occasion additional casualties were suffered when the enemy mortared and fired RPGs into the DUSTOFF area. This is difficult to control as there is normally only one medic to treat wounded and they need to be fairly close for rapid DUSTOFF and generally need concurrent preparation for the winch evacuation." - 5 RAR, Aug 69.

436. "When air support is requested to assist ground forces in contact it should be used on arrival to make maximum use of the endurance time of the aircraft. Mortar and artillery fire thus must often cease whilst the aircraft identify the targets and friendly troops locations. During this time, there can be a lapse of fire on the enemy position. One method of reducing the lapse of time is to hold the aircraft to a flank in a holding area where it can observe the target, and include marking smoke in the artillery or mortar fire. Thus the target indication and the aircraft identification process can occur at the same time as the target is being engaged by fire." - 6 RAR, Jun 69.

437. "When the LFT arrives artillery is normally stopped while the gunships are in the target area. Depending upon the gun-target line, at times artillery may be continued in depth - this is rare however as the gunships like freedom of movement." - 5 RAR, Aug 69.

438. "It is desirable to have an LFT on station covering the move back into the bunkers - in particular dry runs can be employed on the flanks of our troops." - 5 RAR, Aug 69.

439. "The present method for marking locations of friendly troops for supporting RAAF gunships is that all elements within 1 000 metres of the contact must provide continuous marking using coloured smoke grenades. Under these circumstances, the amount of smoke usually carried by a platoon operating in two separate locations will last about 15-20 minutes. The following problems arise:

- a. All gunships carry a reserve of smoke grenades for emergency resupply to troops on the ground. However, as in this contact where two aircraft were forced down and one RAAF crewman KIA, accurate dropping of the resupply to troops under fire can be a hazardous undertaking.
- b. Coloured smoke takes a long time to develop to a height at which it can be identified from the air. By this time, it has often drifted away from its point of origin at ground level.
- c. The enemy can, and in this case did, throw coloured smoke to confuse the gunships." - 2 RAR, Apr 71.

OBSOLETE

RESTRICTED

4-14

OBSOLETE

RESTRICTED

CHAPTER 5

WEAPONS AND EQUIPMENT

SECTION 5- 1. WEAPONS

501. Demands for extra equipment and/or different types of equipment became commonplace during the conflict. These varied from section radios to personal weapons for helicopter-borne commanding officers.

502. **Small Arms.** In Korea, fighting patrols were often completely armed with automatic weapons by borrowing from within the company. In Vietnam, the infantry soldier had a variety of weapons available to him for the tasks he was required to perform.

Weapon Comments

503. **SLR 7.62 mm L1A1.** The SLR 7.62 mm L1A1 was a reliable, accurate rifle with excellent penetrating ability. General points were as follows:

- a. It would have been easier to handle in close country if the barrel had been shortened.
- b. It rusted quickly in the tropics. Perhaps this problem could have been corrected with improved 'blueing'.
- c. A lighter magazine could be one means of reducing weight. Soldiers must resist the tendency to overfill magazines. Only eighteen rounds should be loaded, and the second last round should be tracer.
- d. Unauthorised modification must not be allowed.

504. **M16 5.56mm.** The M16 5.56mm was a versatile weapon without the stopping power of the SLR. It required careful maintenance to avoid stoppages. Comments were as follows:

- a. It was needed by scouts and in ambushes because of its automatic capability.
- b. It had a reasonable incapacitating effect up to 100 m but lacked penetrating power in undergrowth.
- c. It was easier to handle than the SLR although, because of the large foresight bracket, it still caught on undergrowth in very close country.
- d. It required camouflage painting or taping to stop shine from fibreglass components.
- e. The lower receiver assembly needed to be kept well lubricated, and soldiers must not be allowed to strip or tamper with this mechanism.
- f. It was much more effective than the F1 sub-machine gun.
- g. The scaling of 265 for a battalion was adequate.

505. **SMG 9 mm F1.** The SMG 9mm F1 was a light, reliable and easily handled weapon. In practice it lacked incapacitating power, and did not appear to deserve a place in an infantry battalion equipment table. A small pool was suggested for use in village searches and inner cordons.

506. **GPMG M60.** The GPMG M60, when well maintained, was a reliable weapon which proved its worth in action. Comments were as follows:

- a. It was too heavy and cumbersome for general patrol and section work.

- b. There was a tendency to regard the M60 as a personal rather than a crew weapon, in which every soldier must be thoroughly trained.
- c. Particular components were too easily broken.
- d. The biggest disadvantage was the carriage of belt ammunition. Such ammunition was awkward to carry and the links splayed easily. It also readily collected dirt and mud. Various methods were tried for carrying the belts, including Claymore bags, utility pouches and specially manufactured waterproof covers.
- e. The biggest advantage was its dependable sustained fire.

507. **Grenade Launcher 40 mm M79.** The 40 mm M79 grenade launcher was considered to be a valuable weapon although its lethal radius was too small. Other comments were as follows:

- a. The arming distance was too great.
- b. The white phosphorus smoke round was excellent for target indication and house/bunker fighting.
- c. The illumination round was effective.
- d. Carried as a secondary weapon, the M79 was awkward and slow to get into action. The M203 launcher (fitted under the M16) overcame this problem.
- e. The scaling of one M79 per rifle section was considered to be insufficient.

508. **M26 Grenade.** The M26 grenade was a useful and reliable grenade but it required greater killing power. Some opinion favoured the introduction of a stick-shaped charge grenade for bunkers. The M26 scaling was considered satisfactory.

509. **Projected M26 Grenade.** The projected M26 grenade was found to be an effective weapon for bunker fighting. The projected grenade generally punched its way through undergrowth and was more efficient in this role than the M79. It was felt that a better solution would be an improved Energa- type grenade which could be launched from the muzzle of a rifle without any special attachment.

510. **M72 Light Anti-Armour Weapon (LAW).** Comments were as follows:

a. *Advantages.* The advantages were as follows:

- (1) A direct hit on a bunker would at least stun and often kill the occupants.
- (2) It was useful in ambushes and could kill by blast and fragmentation.
- (3) A tree burst fragmentation effect could be obtained by firing at the trunk of a tree. This was effective against enemy infantry.
- (4) It compared very favourably with the Chicom RPG-7.

b. *Disadvantages.* The disadvantages were as follows:

- (1) The projectile sometimes bounced off a bunker without exploding.
- (2) The graze fuse often exploded the projectile if it hit twigs or even leaves between firer and target.
- (3) There was a marked back blast effect and soldiers had to be at least 3 m clear of the rear of the weapon.

- (4) It had only one type of round; there was no flechette or fragmentation round.
- (5) The sights were delicate and difficult to carry through jungle in the firing position without being broken.
- (6) The weapon was not designed for reassembly once prepared for firing.
- (7) The idea of discarding the tube after firing, while sound in theory, in practice took time as the tube had to be rendered impossible for use as a primitive mortar.
- (8) When prepared for firing it was not robust.
- (9) It had very little effect on bamboo.
- (10) It took too much time to prepare and fire.
- (11) A more accurate sighting system was required. In contrast, the Chicom RPG sights were excellent. The scaling of two per rifle section was sufficient.

511. **90 mm Recoilless Rifle (RCL).** Opinion varied on the value of the 90 mm RCL. It was too heavy and awkward for extensive patrolling, especially in close country and had to be sited with care due to the back blast. Some battalions used it in defensive positions or FSBs. Other battalions used it in ambushes close to populated areas. It was found to be particularly valuable during some bunker contacts. The flechette round was of value in ambush contacts.

512. **Mine M18A1 Claymore.** The M18A1 Claymore mine was an effective addition to the infantry's range of weapons. It had a devastating effect when properly sited and controlled although it took time to set up and was difficult to site correctly in darkness. The numbers carried varied with the type of operation and individual sub-units. At times, there was a danger that the Claymore was being used as the 'ideal' weapon rather than as a valuable addition to the infantry's family of weapons. It was suggested that a flechette Claymore be developed and that the carrying bag be improved and reinforced. It was also suggested that additional electric lead (up to 60 m) be provided (possibly requiring a more powerful electric current). Vietnam saw the first use of the Claymore mine by

Australian forces. This was not without its problems as training in the use of the weapon was minimal and few users understood the fundamentals of its operation. This led to many unsuccessful firings of the Claymore. Often its potential as a weapon was not fully realised. Incorrectly sited, it could also expose friendly troops to a high risk of injury. Rarely could the failure of a Claymore be blamed on the weapon as these failures were generally the result of user error. Much of this could have been overcome by instituting a more thorough training programme covering the rules of siting, maintenance and operation of the weapon.

513. **Pistol 9 mm.** The 9 mm pistol was only used for convenience in base areas. The calibre was inadequate for most combat situations, though in 1965 and 1966 it was used in tunnel searches. It was felt the pistol should be retained for use in base areas.

514. **Bayonet.** Opinion varied as to whether the bayonet was still needed in its traditional assault role. Generally it was agreed that a utility knife or a high quality multipurpose knife/bayonet would be more acceptable. Even though the opportunities for its use would be infrequent, its presence would be a boost to morale. The general opinion was that the bayonet should be retained.

515. **Support Company Weapons.** The 106 mm RCL was considered to be a very useful weapon for FSBs, and many battalions found it practicable to airlift these weapons into all their FSBs. Flamethrowers were used with distinct success in some cave contacts, but improved flamethrower equipment was required.

SECTION 5-2. EQUIPMENT

516. Much was done during the years 1965 to 1971 to improve both the quality and type of equipment issued. Recommendations by battalions in 1965 and 1966 were acted upon and made active service easier for subsequent units. It is not intended in this TIB to comment in detail on a battalion equipment table, but only to highlight certain aspects and individual items:

- a. *Individual Cutting Equipment.* Machetes were too noisy, and few were carried. Secateurs were essential for quiet cutting of bamboo and vines. The scale varied but one set

per soldier was recommended. A lightweight pruning type saw was carried by many companies for use in clearing LZs.

- b. *First Aid Dressings.* Few units carried field dressings. Most soldiers preferred the larger shell dressing. The carriage of the dressing varied with battalions, some using the shirt or trouser pockets, others preferred to strap the dressing on the butt of personal weapons.
- c. *Jungle Green Clothing.* Various types of jungle green clothing were issued in Vietnam. The shirt worn outside the trousers was popular. Many soldiers complained of the buttons on shirts and trousers, preferring press studs. It was considered that a disruptive pattern would improve combat clothing.
- d. *Torch Lights.* The olive green right-angled plastic torch was effective for base use. An improved penlight (on a lanyard), capable of red and white light, was needed for field use.
- e. *Pack.* The new issue pack was favourably received by most soldiers. It was suggested that the pack be made of material with a disruptive pattern and contain plastic bags for use during the wet season.
- f. *Entrenching Tool.* The US lightweight tool tended to be weak at the joints, but was acceptable for all but heavy digging. It was much lighter than the standard Australian issue and was preferred by many soldiers. An interchangeable screw-on pick head would have been an advantage.

- g. *Watches.* The 'Mickey Mouse' plastic watch was of value but the scale of issue within a battalion was too limited. Sufficient watches were needed for all signallers, orderlies and three per rifle section.
- h. *Radio Ancillary Equipment.* Infantry battalions needed a repair pool of ancillary radio equipment (handsets and antennas) in addition to the existing complete equipment schedule entitlement. There were never enough handsets to cope with the repair time lag in Vietnam.
- i. *Mine Detector.* In areas of high mine danger, many platoons carried a mine detector at all times. In some battalions, the detector was modified by removing the large handle, leaving only the short handle and head which fitted into a pack. This made the detector easier to carry, reduced the weight, and was considered by many assault pioneers to be easier to use.
- j. *Drinking Cup.* The Australian issue cup needed an improved rim of a relatively low heat conducting metal, so that hot drinks could not only be made, but drunk quickly. The US manufactured cup was a more effective design.
- k. *Company CP Tents.* Some personnel expressed a requirement for a company CP tent. Others dismissed it as needless luxury and weight. Some companies used their own pattern tents; others used inner panels from issued lightweight tents.
- l. *Water Carrying Bags.* Water bags were a valuable item, but were easily punctured when used in close country.
- m. *Starlight Scopes.* Battalions seldom had enough Starlight scopes for their needs, particularly when engaged in ambushing near settled areas. The equipment was difficult to repair, and often out of action for long periods.

The Soldier's Load

517. To carry out their task in the most efficient way for the period of time required to conduct an effective operation, infantry sub-units had to carry a heavy load of weapons, rations and equipment. The load on the individual soldier presented a number of specific problems:

- a. It reduced his mobility.
- b. It reduced his range of action.
- c. It slowed his reaction time to enemy action.
- d. It made him tired.
- e. Carrying a heavy load used energy that should have been available for fighting.

518. The study of the load carried by the soldier was not simply an exercise in finding lightweight equivalents to the weapons, equipment and rations carried by the soldier. A reduction in the weight of an item may have operational significance. The example used was rations. A lightweight ration which gives all the necessary energy, protein and vitamins could be used to reduce the weight carried by the soldier or it could also enable a sub-unit to stay away from base, or operate without resupply by air for a longer period. The lighter ammunition of the M16 enabled soldiers to carry more ammunition whilst on operations.

519. **Overloaded Soldiers.** In spite of all the studies and efforts to lighten the soldier's load, it remained too heavy. Soldiers suffered a serious tactical impairment unless they went into battle carrying less weight than they are accustomed to march and train with. It was noted that men suffer a loss of muscular strength when moving under fire yet the Army still allowed and required soldiers to carry more food, equipment, personal items and ammunition than experience indicated would be needed. All items in the soldier's load should be examined critically. The example was given of studies conducted by both the US and UK armies which indicated that a soldier's maximum load should be 30% of his body weight.

520. **Load-Carrying Equipment.** There was a requirement for a lightweight carrying frame, to enable radio operators to carry both their pack and radio on the one frame. This would also have allowed them to attach and detach either the pack or the radio without a major repacking of all the equipment carried. The US Special Forces lightweight tubular frame with an adjustable shelf and straps would have been suitable for this purpose.

Extracts From After Action Reports - Weapons and Equipment

521. "This was the first occasion on which enemy mortars had been used against our positions. Because of the skillful way in which the enemy 60 mm mortar was used, the case for a light indirect weapon such as this at company level, could well be taken up again." - 6 RAR, Jul 66.

522. "Twenty four additional GPMG M60 should be allocated to each battalion to assist with base defence whilst battalions are away on operations." - 5 RAR, Aug 66.

523. "It is suggested that thought might be given to comparing the M26 grenade to the enemy stick grenade. It is the opinion of some soldiers that the stick type grenade can be thrown further and with greater accuracy than the M26 grenade." - 7 RAR, Aug 67.

524. "Radios from platoon to section are absolutely necessary. These should be obtained at once." - 7 RAR, Jun 68.

525. "At times in the command post there was a need to maintain up to eight radio nets. Naturally this created interference problems and some nets were completely cut off by others. This again emphasised the need for a bigger gap between battalion, company and artillery frequencies." - 4 RAR, Aug 68.

526. "In such contacts at short range with thick undergrowth, especially bamboo, the M72 and M79 could not be used effectively. Grenades cannot penetrate the thick undergrowth and yet are still most effective if troops are practised in throwing from a lying position. Most of our casualties were caused by RPG tree bursts. It is strongly recommended that a rifle grenade launcher be made

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available, for example the Energa, to provide an explosive weapon that can punch through undergrowth like the RPG. Troops did not have confidence in the M72 having observed too many premature detonations on light foliage in training. We are however retraining in the use of this weapon. The M60 GPMG proved in all cases to be an outstanding weapon.” - 5 RAR, Apr 69.

527. “During this operation, the combination Launcher Grenade L1A1, adapter grenade projector M1A2 and M26 HE grenade proved successful as an immediate means of providing close direct effective fire support. The issue of these equipments should be made on a minimum of one per assault section.” - 6 RAR, Dec 69.

528. “The 90 mm RCL is worth carrying for operations of a short duration. Once the 90 mm firing a flechette round is brought into action the enemy loses interest in the battle.” - 7 RAR, May 70.

529. “The Claymore is a valuable addition to our range of weapons, but it is not the ready made answer to every ambush or night harbour contact. Small arms and MGs properly sited and controlled are still the best killer weapons.” - 7 RAR, Jul 70.

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CHAPTER 6**TRAINING****SECTION 6-1. THE TRAINING CYCLE**

601. **Recruit Training.** Prior to 1965, the recruit training course took twelve weeks. From February 1965, it was reduced to ten weeks, the bare minimum required to bring recruits to an acceptable standard, particularly in weapon training. Despite the reduction, it was directed by AHQ that certain administrative subjects be added to the recruit syllabus.

602. **Corps Training.** Corps training for national servicemen (NSM) for an infantry battalion was conducted in ten weeks at Singleton, and on occasions between 1968 and 1970 was conducted by a battalion for its own NSM. Opinions varied as to the value of the latter system.

603. **Training at the Jungle Training Centre (JTC).** All soldiers attended a course at JTC in tropical warfare techniques. Formed units were trained at JTC by companies using a unit cadre but under the close supervision of JTC Battle Wing staff, and using a syllabus approved by Directorate of Military Training (DMT) and AHQ. Reports on the standard of training of each company were sent to DMT AHQ and the command HQ/formation to which the particular unit belonged.

604. **Collective Training.** Collective training at battalion level was carried out by task force and command HQ sponsored exercises and finally by an AHQ exercise, directed by HQ 1 Division at Shoalwater Bay. The conduct of the final exercise led to a feeling within many battalions that they were being assessed, as opposed to being exercised.

605. **Mandatory Courses.** Attendance at certain courses was made obligatory for certain members of all infantry battalions. This led to much criticism, due to the load imposed on battalions in producing suitable soldiers. As there will be a similar requirement in

the future, it was felt that the list of mandatory courses requires close examination to determine what is essential and practicable and that much could be deleted from the old list.

606. **Battalion Training.** The question of responsibility for training a battalion for operations generated much discussion during the years of commitment in Vietnam. The basic point of contention was whether the CO should be responsible, or whether AHQ and commands should have been involved in matters of detail. An example often used was the set syllabus of JTC sub-unit training and the unvarying approach to techniques by JTC Battle Wing staff, regardless of the unit's strengths and weaknesses known by the CO.

SECTION 6-2. INDIVIDUAL SKILLS

607. **Weapon Training.** The conference made the following points in regard to weapon training:

- a. It was the general view that while the corps training syllabus included instruction on practically all weapons, soldiers arriving in battalions were masters of none. It was felt that rifle shooting in corps training should be increased at the expense of specialist weapons, if additional time was not available. There was general agreement that the syllabus should be examined.
- b. All agreed that the mobile marksmanship courses from the Infantry Centre were valuable, and should be increased if possible.
- c. It was the general opinion that nothing was fundamentally wrong with the system of marksmanship training, but that the system had to be applied properly.

608. **Fieldcraft.** Many of the lessons arising from sub-unit operations in Vietnam reflected a lack of country sense and the ability to use ground tactically. In night actions, and in very close country, soldiers were frequently hit whilst standing up. This was because they stood up more, thinking that they could not be seen, but in reality they were just as vulnerable as by day. In training the

difference between concealment and cover was not always appreciated by soldiers who lacked battle experience.

609. **Discipline.** A high standard of discipline was essential for success, particularly for ambushing. This standard was only attained through meticulous attention to detail by all commanders during field training. Post operation reports often indicated failure in sub-unit actions due to noise, sloppy movement and other aspects of poor battle discipline.

610. **Alertness and Quick Reaction.** There were many examples in Vietnam of quick aggressive action by junior leaders and soldiers using their initiative to achieve success. There were many other examples of casualties caused to patrols by an alert enemy and slow reaction by our soldiers. It was agreed that the cultivation in training of an instinctive offensive reaction in an emergency must be emphasised.

611. **Reading Signs.** The understanding of signs is a skill required by all infantry soldiers. Individual reconnaissance skills and techniques required much more training.

612. **Medical Training.** Many commanders at all levels felt a need for more emphasis in training on health, hygiene and first aid. Much was done in all battalions on these aspects, especially on the effects of heat and the immediate measures to be taken for the relief of heatstroke and exhaustion. Night aeromedical evacuation should be practised in Australia and as winching out of close country at night was a difficult operation, it should be covered in training.

613. **Safety.** Most battalions had their share of safety related incidents in which casualties occurred. It is accepted that training must be realistic, and all officers and NCOs must seek ways and means of imparting combat experience to soldiers who have not yet been in battle. The emphasis should be on safe realism. Field firing exercises, both interesting and realistic, can be conducted with safety by effective control and common sense.

614. **Field Defences.** The standard of field defences in Vietnam varied from occasionally good to generally unsatisfactory. The knowledge of fire trenches, protection, revetting and sandbagging needed much improvement. It was agreed that greater attention to these fundamentals is required in training.

615. What are the qualities and individual skills which can be instilled into a man through training, to make him ready for battle? Lord Wavell suggests: "... discipline, physical fitness, technical skill in the use of his arms, battlecraft. The requirements for the ideal infantryman are the qualities of a successful poacher, cat-burglar and gunman; this definition is deliberately meant to call attention to the value of low cunning in war".

Extracts From After Action Reports - Weapon Training

616. "Marksmanship is still a problem and efforts will continue to be made to improve shooting to the stage where soldiers can engage small fleeting targets (the head and shoulders of the enemy) and be confident of hitting them." - 6 RAR, Sep 66.

617. "More emphasis will have to be given to fire control training and fire discipline to overcome the tendency to fire off ammunition unnecessarily in contact." - 2 RAR, Jul 70.

618. "We have lost the ability to kill with one or two well aimed shots at ranges in excess of 50 m. This partly stems from a belief in the mass killing efficiency of the Claymore mine, and over reliance on its use when small arms may sometimes be a better choice of weapons." - 7 RAR, Dec 70.

619. "There is a need for further and continuous shooting practice at targets at battle ranges. Suitable sub-unit ranges are being constructed to improve accuracy of shooting." - 6 RAR, Jul 66.

620. "There is too much ammunition expenditure for the result. There is so much changeover of soldiers that the hard learnt combat techniques of effective fire control need continual emphasis and practice." 7 RAR, Dec 70.

621. "Section Commanders must maintain fire control to prevent waste of ammunition and subsequent unnecessary resupplies which prejudice security." - 3 RAR, Mar 71.

622. "Because ammunition ran very low in this contact, fire discipline and strict fire control were vital. Their development in training is still most important." - 2 RAR, Apr 71.

Extracts From After Action Reports - Health and Hygiene

623. "The health hazard in ambushing and destroying enemy camps, where a large installation might require the presence of a company for three to four days, places a strain on the medical protective cover available to troops in regard to mosquito and mite repellents. In many instances troops are rained on, required to cross water obstacles and occupy lying ambush positions in lice and vermin infected enemy camps. Sometimes soldiers have torn clothing for two to three days till new clothing can be resupplied. In the daily task of digging weapon pits, dirt gets between the clothing and the skin, and leeches, ticks and thorns open the skin to infection. Additionally when moving through very tall grass insects tend to drop inside shirts." - 7 RAR, Oct 67.

624. "With the coming of the wet season, every effort is being made to use local water resources. Local water is also being used as a matter of policy in an endeavour to keep as many helicopters out of the area as possible and hence avoid prejudicing our operations. There are health risks involved in this policy and commanders are required to make careful checks on the employment of Millbank filters and sterilisation tablets. It should also be realised that the use of Millbank filters is normally only practicable on an overnight stop - it can take several hours to fill one water bottle using a filter." - 5 RAR, May 69.

625. "Training in assessing casualty priorities and method of extraction when winching is essential. It must be stressed during training that the jungle penetrator is suitable for practically all types of casualty except bad back injuries." - 7 RAR, Apr 70.

626. "Field latrines should be sited to suit the length of halt:
- a. Short halts require inner latrine.
 - b. Long halts (two or more nights) necessitate an inner latrine for night use and an external latrine for day use. The approaches of the external latrine being covered by a minimum of one sentry but preferably two sentries." - 4 RAR Sep 71.
627. "After four weeks of continuous operations, it was apparent that many soldiers were exhausted. Factors contributing to this were:
- a. A decline in physical fitness towards the end of the battalion's tour. Apart from a short retraining period in June there has been only limited opportunities for physical fitness training.
 - b. Protracted operations during the wet season are more tiring than during the dry.
 - c. Vegetation in the area makes for difficult going. Also, the nature of the operation demands fairly continuous movement. Fortunately, the plan was flexible enough to withdraw the battalion at this stage." - 3 RAR, Oct 71.

SECTION 6-3. COLLECTIVE TRAINING

Sub-units

628. **Night Training.** "The more civilised we become, the more we draw on soldiers from well lighted towns, the more clumsy and frightened we shall be in the dark, and the greater the odds in favour of a more primitive foe." - Slim.

629. It was considered that there was not enough training done by night, yet in the last years of our operations in Vietnam, ambushing and moving by night on the periphery of the populated areas became normal. More time must be spent becoming accustomed to night work, including shooting by night; not only for half-an-hour early in the evening, but after three to four hours in cramped ambush positions.

630. **Fire and Movement Techniques.** Minor tactics in Vietnam often became stereotyped and unimaginative. Within a platoon, movement forward may depend upon maximum covering fire and movement in short bounds, often with only pairs of riflemen moving forward at any one time. To be successful, movement of this nature calls for a higher standard of training than the more elementary movement of MG and rifle groups within a section.

631. **Mines and Booby Traps.** Some battalions had many mine and booby trap incidents, while other battalions had none. All battalions emphasised the need for continuous revision and retraining on mine warfare.

632. **Armoured - Infantry Training.** Most battalions did not receive enough armour-infantry cooperation training, partly because 1 Armoured Regiment was limited to exercising with nine companies per year. Some worked with armour for the first time on their final exercise at Shoalwater Bay. Two or three days of work-up training in Vietnam did not compensate for this lack of training.

633. **Bunkers.** Training to combat enemy bunkers was virtually non-existent in Australia. Much training was needed in the technique of locating, attacking and searching bunker systems.

634. **Fighting in Built-Up Areas.** The Army did not appear to learn from the experience of others in fighting in built-up areas. This aspect of training was often neglected. Some battalions learnt the lessons by on-the-job training in Baria, Dat Do and Binh Ba.

635. **Battle Inoculation.** Battle inoculation is the process of making soldiers accustomed to the noises and shocks of war by simulating these, as realistically as possible in training. It is of the utmost importance that it should be carried out by night and day. Due to safety constraints it is difficult to achieve true battle inoculation. Early in 1967, battle inoculation training was reintroduced at JTC for both individual battle efficiency and sub-unit courses. The result was short of what we had achieved at the Battle School in Japan during the Korean War. Some units were of the opinion that at JTC it was of no real value. To the young soldier it did give some experience of noise, and it was recommended by AHQ that battle inoculation continue to be applied and developed at JTC. In addition, the following was needed:

- a. Exposure of each soldier to small arms fire directed near him.
- b. Practice in platoon live firing attacks to give the assault groups confidence in moving close to flank fire.
- c. Practice in platoon live firing from a defensive position, to give the soldier an awareness of small arms mutual fire support.

Units

636. The greatest weakness commented upon by most field grade officers who had served with battalions in Vietnam was the lack of practical tactical training of company commanders and CP staff. Officer training sessions, tactical exercises without troops (TEWTs) and command post exercises (CPXs) are valuable, but a war game system is also needed. Tactical considerations can be learnt from books, however they will never be properly understood unless they are constantly applied in the field under varying conditions of ground and situation.

637. Training and practice of linguists, liaison teams and mobile advisory teams were neglected areas in most battalions, rectified only by on-the-job training in Vietnam. Individual skills were developed, but were not able to be practised in a realistic exercise setting.

638. **Pace of Exercises.** To achieve more realism it was agreed that the pace of unit training exercises should equate to that of actual operations.

Conclusions

639. The battle skills learnt in training are the same habits the soldier will use in combat. Effective battle skills must be so deeply ingrained through correct teaching and intensive practice that, even under the strain of combat, soldiers will automatically react correctly.

640. Upon its conclusion, each operation should be studied and the mistakes and general performance closely analysed. Wherever possible, immediate practice should be conducted to rectify errors.

641. No battalion is ever completely trained. There will always be weaker areas that require additional time and effort.

642. All forms of orthodox individual and collective training must be imaginative and meticulously planned. There is no reason why the most mundane subjects should not be enhanced through competition, and given an operational setting to keep troops alert and interested.

643. "If the Army is going to be ready, the infantry, above all, has got to be ready. In my experience, it is the infantry who set the standard for an Army ..." - Slim.

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CHAPTER 7**CONCLUSIONS****SECTION 7-1. GENERAL****Doctrine**

701. It was considered that operations in Vietnam showed that Army doctrine was basically sound.

702. It is important that techniques and aspects applicable only to the Vietnam situation should not be included in pamphlets. Doctrine should be based on the unchanging principles of war.

703. Aspects of Army experience in Vietnam applicable to doctrine were as follows:

- a. *Command and Control.* In relation to command and control, the availability of helicopters increased the tempo of tactical operations, although deploying troops by helicopters, which were subsequently withdrawn, left the troops with a mobility less than the enemy in that area. The normal procedures for reconnaissance, decision making and deployment needed to be streamlined.
- b. *Control of Firepower.* The problem of controlling a wide variety of firepower when fighting in populated areas was a particularly difficult one. Strict rules of engagement were needed and clearances from local authorities obtained before targets could be engaged. The requirement for continuous and close liaison and the adoption of rapid and efficient clearance procedures required emphasis.

- c. *Sentries.* The Vietnam experience showed that sentries should be in pairs by day and night. Relief of sentries by day and night should be effected by one sentry alerting and guiding his relief to the sentry post. Sentries should not exchange personal weapons.
- d. *Contact Drills.* Contact drills placed too much insistence on moving by running. It would have been better to stress the 'down', before selecting and moving to fire positions.
- e. *Action on Mine Incidents.* A new drill for action on mine incidents was required. There was debate about the suitability of drills being used.

Training

704. The aspects of training which it was felt required further emphasis or consideration were:

- a. the number and type of courses required by battalion personnel preparing for operations and contingencies;
- b. the place of JTC in the cycle of infantry battalion training, and the method of implementing sub-unit training at JTC;
- c. an improved system of weapon training, involving better instruction and increased practice;
- d. the allotment of grenades per rifleman per training year needed to be increased. Confidence and expertise in the offensive use of the hand grenade by day and night was required;
- e. bunker training with a typical bunker system of the type found throughout Indo-China was required at JTC or in each TF area for sub-units to practise counter-bunker techniques;

- f. emphasis on tracking skills for all infantry riflemen with particular emphasis being required on observation and reading of signs, (including sound and smell), by day and night;
- g. aeromedical evacuation by night in jungle country;
- h. the employment of snipers in the infantry battalion;
- i. field defences which required emphasis in basic and collective training;
- j. aspects of liaison required for joint operations with the RAAF; and
- k. battle inoculation facilities at JTC.

705. Lessons derived from Vietnam which required detailed examination by the Infantry Corps were the following:

- a. The problem of how to locate and overcome enemy bunker systems in very close country.
- b. Techniques to counter mine warfare.
- c. Battlecraft and offensive tactics at platoon level.

Organisation

706. The battalion required some changes to its structure, particularly in the support company. The all-purpose battalion establishment was considered to be inadequate for a concept of CRW operations from a semi-permanent base. Furthermore, increments were needed if extensive military civic action projects were undertaken. The major change considered necessary was an increase in the number of assault pioneers. A section of pioneers was required by each rifle company and also at battalion HQ. No major changes to the traditional four rifle company, three rifle platoon organisation were recommended.

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