

**CANBERRA PAPERS ON
STRATEGY & DEFENCE NO. 160**

Published in Australia at The Australian National University, December 2007.

© Australian National University

This book is copyright. Apart from any fair dealing for the purposes of private study, research, criticism or review as permitted under the Copyright Act, no part may be reproduced by any process without written permission. Inquiries should be made to the publisher. This book must not be circulated in any other binding or cover.

National Library of Australia
Cataloguing-in-Publications entry

Tidey, Blair, 1970-.

Forewarned Forearmed: Australian Specialist Intelligence Support
in South Vietnam, 1966-1971

ISBN 0 7315 5467 1.

1. Australia. Army - History. 2. Vietnamese Conflict, 1961-1975 - Military intelligence - Australia. 3. Military intelligence - Australia.
4. Australia - Military policy. I. Australian National University.
Strategic and Defence Studies Centre. II. Title. (Series: Canberra papers on strategy and defence; no. 160).
355.34320994

Series editor: Meredith Thatcher

Cover design by Meredith Thatcher

Front cover photo: Shows personnel from Detachment 1st Divisional Intelligence Unit (South Vietnam) and their Vietnamese counterparts preparing to search a market area during the cordon and search of a village in 1967. Photo courtesy of the Australian War Memorial; Australian War Memorial Negative, Number AWM EKN/67/0137/VN.

Back cover insignias: Australian Army Intelligence Corps (top); Royal Australian Corps of Signals (bottom). Insignias courtesy of the Department of Defence; available at <http://www.defence.gov.au/army/traditions/corps.htm>, accessed 12 December 2007.

Published and distributed by:

Strategic and Defence Studies Centre

The Australian National University

ACT 0200 Australia

Tel: 61 (0)2 6125 9921; Fax: 61 (0)2 6125 9926; Email: sdsc@anu.edu.au

FOREWARNED FOREARMED:
Australian Specialist Intelligence Support
in South Vietnam, 1966-1971

Blair Tidey

Published by
Strategic and Defence Studies Centre
The Australian National University
Canberra
2007

The **Canberra Papers on Strategy and Defence** series is a collection of monograph publications arising principally from research undertaken at the SDSC. Recent Canberra Papers have focused on major aspects of Australian defence policy, Australian and New Zealand engagement in Asia, New Zealand defence restructuring, disease security in Northeast Asia, ballistic missile defence, the complexities of dealing with radical Islam, and aspects of transnational crime.

All papers in the Canberra Papers on Strategy and Defence series published since 2006 have been peer reviewed.

A list of the most recent Centre publications are available on the SDSC website at <<http://rspas.anu.edu.au/sdsc/publications.php>>, along with an Ordering form. *Electronic copies (in pdf format) of most SDSC Working Papers published since 2002 may be viewed and downloaded for free from the SDSC website.*

Unless otherwise stated, publications of the Centre are presented without endorsement as contributions to the public record and debate. Authors are responsible for their own analyses and conclusions.

Strategic and Defence Studies Centre Publications Program

Advisory Review Panel

Emeritus Professor Paul Dibb
Professor Desmond Ball
Professor David Horner
Professor Hugh White
Professor William Tow
Professor Anthony Milner
Professor Virginia Hooker
Dr Coral Bell
Dr Pauline Kerr

Editorial Board

Professor Hugh White
Dr Brendan Taylor
Dr Christian Enemark
Miss Meredith Thatcher (*series editor*)

ABSTRACT

Since the end of the Vietnam War, historical research and writing on the Australian military involvement in the conflict has only briefly dealt with intelligence aspects. Even less attention has been given to specialist intelligence collection, such as signals, imagery and human intelligence.

This paper examines the modus operandi and effectiveness of specialist intelligence support to the 1st Australian Task Force (1 ATF) in South Vietnam during the period from May 1966 to December 1971. The operations of 1 ATF represent the major Australian contribution to the Vietnam War, and a useful case study of the utility of specialist intelligence collection in counterinsurgency operations. This paper will focus on the specialist intelligence units organic to 1 ATF, namely the Detachment 1st Divisional Intelligence Unit and 547 Signal Troop. The former was responsible for the provision of imagery intelligence, interrogation and counter intelligence (including liaison and agent handling) to 1 ATF, while the latter was responsible for the provision of signals intelligence.

This paper also examines how these units were organised and equipped, how they conducted their operations, and how effective they were in providing specialist intelligence support.

In determining the latter, three interlocking issues are examined:

- the impact of the units in terms of the entire 1 ATF intelligence system;
- the impact of the units on the mounting of Australian military operations; and
- the impact of the units on enemy forces opposing 1 ATF.

This paper has no official status or endorsement and represents the views of the author alone.

ABOUT THE AUTHOR

Blair Tidey is currently a serving member of the Australian Intelligence Corps, with the rank of Warrant Officer Class Two. He has served in a variety of tactical and strategic postings during his career in the Army, including operational tours of Rwanda, Iraq and Afghanistan. He holds a Bachelor of Arts (Modern Asian Studies) from Griffith University and a Master of Defence Studies from the Australian Defence Force Academy (ADFA), University of New South Wales, for which he was awarded the ADFA Defence Studies Prize in 2002.

ACKNOWLEDGEMENTS

I wish to acknowledge the assistance of the following organisations, without which the publication of this paper would not have been possible:

- Army History Unit, Canberra
- Australian War Memorial, Canberra
- Defence Intelligence Training Centre, Canungra
- Defence Signals Directorate, Canberra
- Directorate of Classified Historical Records Review, Department of Defence, Canberra
- Museum of Australian Military Intelligence, Canungra
- Royal Australian Signals Corps Museum, Watsonia
- 1st Intelligence Company, Brisbane
- 7th Signals Regiment (Electronic Warfare), Cabarlah

I would also like to acknowledge the many individuals who graciously gave of their time and expertise in interviews and correspondence for this research.

I would also like to thank Professors Peter Dennis and Jeffrey Grey at ADFA, who expertly supervised my Masters sub-thesis upon which this paper is based.

Finally, I would like to thank my wife, Liz, who has patiently supported me in all my academic and military endeavours, far beyond the call of duty.

CONTENTS

Acknowledgements	ix
List of Diagrams, Plates and Tables	xiii
Acronyms and Abbreviations	xv
1. Introduction and Background	1
The Context: 1 ATF Operations	2
The Context: The Enemy	4
2. Modus Operandi of Detachment 1st Division Intelligence Unit (South Vietnam)	7
Introduction	7
Doctrinal Aspects	8
The Air Intelligence Section	10
The Counter Intelligence Section	13
The Prisoner of War Interrogation and Linguist Section	16
The 10th Military Intelligence Detachment (ARVN)	20
Detachment Reporting	21
3. Modus Operandi of 547 Signal Troop	23
Introduction	23
Doctrinal Aspects	24
Troop Organisation	25
The Enemy Communications System	26

Search and Intercept	27
Direction Finding	30
Analysis	34
Reporting	36
4. Conclusion: The Effectiveness of Specialist Intelligence Units	41
Problems in Assessing Effectiveness	41
Contribution to the 1 ATF Intelligence System	44
Contribution to 1 ATF Operations	46
Impact on the Enemy	51
Conclusion	52
Notes	53
Annexures	
<i>Annex A: Personnel and Doctrine Issues</i>	69
Personnel	69
Doctrine	71
Notes	73
<i>Annex B: Previous Operational Experience</i>	75
Malayan Emergency (1948–60)	75
Confrontation (1963–66)	77
Other Service—Southeast Asia and Elsewhere	78
Influence of Operational Service	78
Notes	79

LIST OF DIAGRAMS, PLATES AND TABLES

Diagrams

1	Primary National Liberation Front Forces Opposing 1 ATF	5
2	Organisation of Detachment 1st Divisional Intelligence Unit (South Vietnam)	9
3	Organisation of 547 Signal Troop	25

Plates

1	Member of Detachment 1st Divisional Intelligence Unit (South Vietnam) operating the XM-3 'people sniffer', 1971	22
2	Officer Commanding Detachment 1st Divisional Intelligence Unit (South Vietnam) and his Vietnamese counterpart interrogating a captured Viet Cong member during the cordon and search of a village in 1968	22
3	Members of 547 Signal Troop in the 'set room', operating radio receivers and associated equipment, 1969	28
4	ARDF Console installed in <i>Pilatus Porter</i> aircraft	32

Tables

1	Divisional Intelligence Unit—Sections and their Sources	9
2	Components of Communications Intelligence	24

ACRONYMS AND ABBREVIATIONS

APD	Airborne Personnel Detector
ARDF	Airborne Radio Direction Finding
ACV	Armoured Command Vehicle
ARVN	Army of the Republic of Vietnam
CI Section	Counter Intelligence Section
CMF	Citizens Military Force
COSVN	Central Office for South Vietnam
Det 1 Div Int Unit (SVN)	Detachment 1st Divisional Intelligence Unit (South Vietnam)
FSB	Fire Support Base
GSO2 (Int)	General Staff Officer Grade Two Intelligence
GSO3 (Int)	General Staff Officer Grade Three Intelligence
GSO2 (Ops)	General Staff Officer Grade Two Operations
HQ 1 ATF	Headquarters 1st Australian Task Force
HQ AFV	Headquarters Australian Forces Vietnam
HUMINT	human intelligence
IMINT	imagery intelligence
IR	infra-red

MACV	Military Assistance Command Vietnam
MR7	Military Region 7
NLF	National Liberation Front
NCO	non-commissioned officer
NVA	North Vietnamese Army
PW	prisoner of war
RAAF	Royal Australian Air Force
SIGINT	signals intelligence
SLAR	sideways looking airborne radar
SPAR	Special Agent Reports
SSL	Single Station Locator
SAS	Special Air Service
USAF	United States Air Force
VC	Viet Cong
VCI	Viet Cong Infrastructure
1 ATF	1st Australian Task Force
II FFV	II Field Force Vietnam
5 RAR	5th Battalion, Royal Australian Regiment
6 RAR	6th Battalion, Royal Australian Regiment
8 RAR	8th Battalion, Royal Australian Regiment
10 MID	10th Military Intelligence Detachment

CHAPTER 1

INTRODUCTION AND BACKGROUND

This is not a realm of trackless swamps for there exists much interesting and valuable historical and contemporary material. In researching military intelligence, from the historical perspective at least, the failing has been a lack of explorers rather than places to explore.¹

The primary mission of intelligence staffs at all levels is to use the intelligence cycle to coordinate, collect, analyse and present the most accurate and timely information regarding the enemy's capabilities and intentions to the supported commander. The full intelligence cycle consists of four phases: direction, collection, processing, and dissemination.² Intelligence staffs are directed by their commanders to find certain information, usually expressed as information or intelligence requirements. The staffs then assign tasks to collection assets, which typically include all of the combat units under the formation commander's purview, as well as assets of flanking or higher formations. The collected information is then processed (i.e. collated and analysed), before being disseminated in a number of forms to satisfy the commander's intelligence requirements. The cycle is continuous and remains in operation until the formation is withdrawn from the combat area.

However, service intelligence bodies, such as the Australian Intelligence Corps, have established units specialising in the collection of certain types of intelligence, as opposed to the all-source analysis function usually undertaken by military intelligence. This last point is important because specialist intelligence units concentrate on only one part of the intelligence cycle, that of collection, rather than the full process. In the main, these units were established to collect intelligence by methods outside the capabilities of normal military units, to include intelligence collected in the three main collection disciplines: human intelligence (HUMINT), signals intelligence (SIGINT), and imagery intelligence (IMINT).

As part of the initial Army concept of deploying an independent task force to South Vietnam with a full complement of arms and services, the initial deployment of 1st Australian Task Force (1 ATF) in May 1966 included two specialist intelligence units—a Detachment of the 1st Divisional Intelligence Unit; and a Detachment of 547 Signal Troop.³ While not usually part of the organic strength of a task force (i.e. brigade sized formation), these detachments were normally allocated from higher formations (e.g. division) in direct support, and this was the case in 1966. As the deployment of 1 ATF to Vietnam marked the first time that an Australian formation (as opposed to a battalion) had deployed on operations since 1945, this was also the first occasion that these specialist intelligence units had deployed in support of Australian rather than allied forces since the Second World War.

The Context: 1 ATF Operations

The stated and implied tasks of 1 ATF comprised a series of separate but interlocking missions which were further distinguished by the division of responsibilities between the South Vietnamese authorities and the allied forces.⁴ In essence, the Army of the Republic of Vietnam (ARVN) and associated paramilitary forces were responsible for destroying the Viet Cong Infrastructure (VCI), while allied forces were responsible for engaging enemy main forces.⁵ These missions were competing priorities in the minds of all allied commanders,

including 1 ATF, since success in one generally required success in another as a result of the intertwined nature of the National Liberation Front's (NLF) political and military structure.⁶ However, until 1969, the division between these missions limited the ability of 1 ATF to achieve success in all areas.

Historians have noted three distinct phases in 1 ATF's operations in Vietnam, which reflected both its assigned missions and the changing situation on the ground.⁷ The first phase was the establishment and consolidation of the 1 ATF in Phuoc Tuy, from May 1966 to January 1968. The second phase was referred to alternately as 'main force' or 'out of province' operations, from January 1968 to June 1969. The third phase was pacification and withdrawal, from July 1969 to November 1971. Each of these phases placed different demands on the intelligence system and, in turn, the specialist intelligence units.

There were three main components of the 1 ATF intelligence system. These were the Headquarters 1st Australian Task Force (HQ 1 ATF) intelligence staff, the specialist intelligence units, and the intelligence staffs of the task force units (e.g. infantry battalions). At full strength, the HQ 1 ATF intelligence staff was headed by a major (designated the General Staff Officer Grade Two Intelligence (GSO2 (Int))), supported by two captains and five enlisted personnel.⁸ This staff worked in much the same way as the typical intelligence staff discussed above; that is, managing the intelligence cycle in order to advise the commander. The specialist intelligence units formed an important part of the collection phase, contributing intelligence in addition to the wide range of sources organic to 1 ATF or available through US or South Vietnamese channels.⁹ The intelligence staffs of the task force units followed a similar process, but were more immediately concerned with the intelligence which their battalions produced and required for operations, as well as the immediate tactical demands of their commanding officer. They often called on, and were supported by, elements of the specialist intelligence units.

The Context: The Enemy

The enemy faced by 1 ATF came in several types, reflecting the tiered political and military organisation adopted by the NLF (known colloquially as the Viet Cong (VC)) in South Vietnam. Theoretically, the insurgency in the south was directed by the so-called 'Central Office for South Vietnam' (or COSVN), which was located in the border regions of Cambodia and the South Vietnamese province of Tay Ninh. In reality, the insurgency was directed by the government of North Vietnam, with COSVN acting as an intermediate headquarters for the southern half of South Vietnam, with the northern half being commanded directly from Hanoi.

Below COSVN, Military Regions acted as combined political and military headquarters for a number of provinces and were, in essence, designed to act at the operational level of command (see *Diagram 1* on page 5). Military Region 7 (MR7) included the NLF provinces of Ba Long, U-1 (the Bien Hoa/Long Binh area) and Sub Region 4 (the remainder of Bien Hoa province).¹⁰ MR7 controlled several large Main Force units, including HQ 5 VC Division with its subordinate units 274 and 275 VC Regiments. These forces were recruited from a wide area and were capable of being deployed throughout the COSVN area of responsibility.¹¹

Below MR7, the NLF's Ba Long province included the government's Phuoc Tuy province, which was 1 ATF's primary area of responsibility. Ba Long province controlled two provincial Main Force battalions, D440 and D445, which were generally recruited from, and solely operated within, their own province.¹² Ba Long province was further subdivided into five districts and two special zones. Each district controlled its own Local Force platoon or company for operations within the district. Below the districts, the village level structure mirrored that of the higher organisations, but on a smaller scale. The village guerrilla units were generally of section strength.¹³

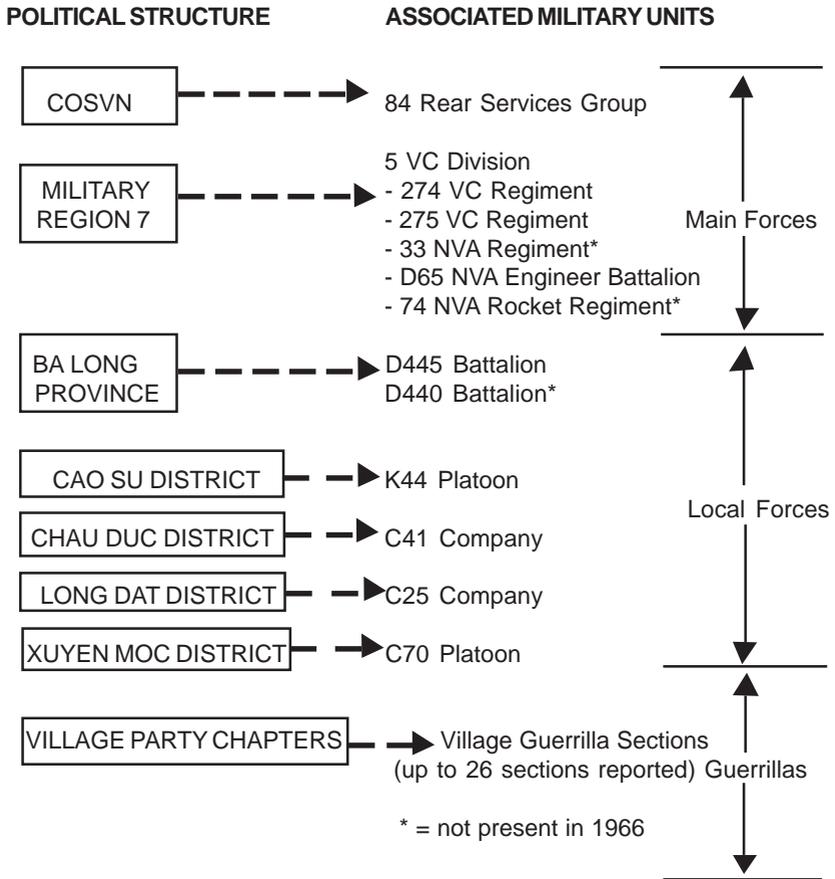


Diagram 1: Primary National Liberation Front Forces Opposing 1 ATF¹⁴

In broad terms, the political structure from village to province level was known as the VCI. This network of interlocking organisations provided an alternative administration to the Saigon government and a support base for armed units. Described as a ‘shadow government’, the VCI posed a significant but elusive threat to allied operations.¹⁵

CHAPTER 2

MODUS OPERANDI OF DETACHMENT 1ST DIVISIONAL INTELLIGENCE UNIT

Introduction

The Detachment 1st Divisional Intelligence Unit (South Vietnam) (Det 1 Div Int Unit (SVN)) was formed in May 1966 from the strength of the 1st Divisional Intelligence Unit, located at Woodside, South Australia, and was designed to provide specialist intelligence support to 1 ATF. Commanded by a captain, the detachment had a posted strength of approximately 15 personnel for most of its time in South Vietnam. However, this was supplemented by the attachment of approximately five linguists from Headquarters Australian Forces Vietnam (HQ AFV) and approximately 15 personnel of the 10th Military Intelligence Detachment (10 MID) of the ARVN.¹⁶ The detachment was also bolstered by the attachment of up to six ARVN interpreters and up to five personnel drawn from various 1 ATF units for reinforcement. The detachment became operational in late May 1966 and ceased operations in November 1971.

Doctrinal Aspects

According to contemporary doctrine, Divisional Intelligence Units were 'to provide the division with the essential intelligence support functions of counter intelligence, prisoner of war interrogation, photo interpretation and linguist capability'.¹⁷ The detachment consisted of a small headquarters element and three subordinate sections: photo interpretation (or air intelligence), counter intelligence, and prisoner of war (PW) interrogation and linguist, supplemented by 10 MID of the ARVN (see *Diagram 1* on page 9).¹⁸

In doctrine, the tasks of the three sections were described in the following terms:

1. *Counter Intelligence Section.* Counter intelligence, provision of early warning of insurgency threats and general field security including, in conjunction with civil government agencies, the security control of all civilians in the operational area.
2. *PW Interrogation and Linguist Section.* Preliminary interrogation of PWs and the translation of captured documents of immediate interest to the division. It could also be employed in connection with refugees and with civilians assisting on intelligence duties.
3. *Photo Interpretation Section.* Responsible for requesting, interpreting and distributing air photos, assisting in the staff assessment of air photograph cover, the maintenance of a small air photograph library and the processing of air photographs taken by one divisional aviation regiment.¹⁹

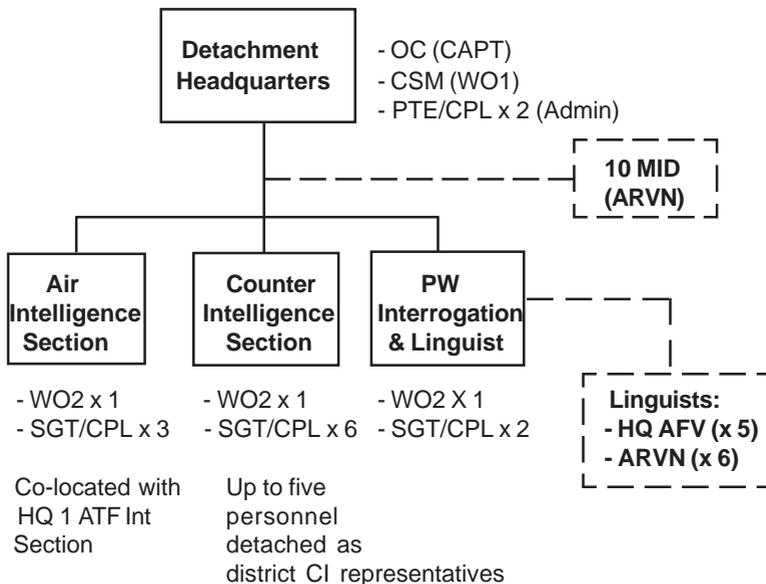


Diagram 2:

Organisation of Detachment 1st Divisional Intelligence Unit (South Vietnam)²⁰

The tasks of the sections and the sources they were to exploit were further detailed in the relevant Division in Battle pamphlets and other publications.²¹ These, by section, are set out in *Table 1* below.

Counter Intelligence Section	Agents and informers Liaison with Indigenous Police and Military Personnel Liaison with Government Officials and Local Leaders Military Security (of friendly forces) Counter Intelligence (against enemy forces)
PW Interrogation and Linguist Section	Prisoners of War (Interrogation and Interpretation) Captured Documents (Translation) Captured Material and Technical Intelligence Detainees, Refugees and Line Crossers
Photo Interpretation Section	Air Photograph Interpretation Interpretation of Surveillance Device Product

Table 1: Divisional Intelligence Unit—Sections and their Sources²²

The Air Intelligence Section

The Detachment's Air Intelligence Section (renamed in Vietnam from the original 'Photographic Intelligence Section' to reflect a wider range of duties) retained an established strength of four during the war, headed by a warrant officer.²³ While its duties did not differ markedly from those laid down in doctrine, the small size of the section and the tasks allotted to it meant that some of these duties could not be fully discharged. The main role of the section was to request and interpret imagery from a range of allied sources, including the numerous airborne reconnaissance assets deployed by the United States Air Force (USAF) and the US Army. In some instances, the section itself ran collection missions using Australian and borrowed US equipment.

Aerial Photography

Vertical aerial photography was the primary source of imagery used by the section. This imagery was provided from US sources, as 1 ATF had no organic capability. The primary aircraft involved were the RF-101C *Voodoo*, RF-4C *Phantom* and RB-57 *Canberra* of the USAF and the OV-1 *Mohawk* of the US Army.²⁴ The USAF aircraft were based at Tan Son Nhut air base in Saigon and their support was requested through II Field Force Vietnam (II FFV) (1 ATF's immediate headquarters), to the HQ 7th Air Force in Saigon.²⁵ The requests for OV-1 *Mohawk* support were less lengthy, being sent via II FFV to the operating squadron at Vung Tau, just south of the 1 ATF area of operations.²⁶ Although also competing with US formations for support, the flightpath for the OV-1 *Mohawk* routinely took it over Phuoc Tuy province regardless of actual tasking, and photography was undertaken as requested by 1 ATF. Once received, a photographic interpreter would examine the imagery for items of interest by using a stereoscope. While useful at times in detecting enemy base camps or unusual activity, the work was described by one member of the section as 'many hours of poring over seemingly endless photographs of trees'.²⁷ The vertical photographs were used

as the basis for a range of products to support 1 ATF operations, as detailed below.

Visual reconnaissance from the air was the primary mission of the 161st Reconnaissance Flight, an Australian Army Aviation Corps unit based at Nui Dat. Members of the Air Intelligence Section routinely accompanied the helicopter and light aircraft missions of 161st Reconnaissance Flight, utilising a hand-held 35mm camera to take low-level oblique photographs of targets of interest.²⁸ According to one account, approximately 10 percent of all imagery processed by the Air Intelligence Section was of this type.²⁹ It was of most use against specific targets, such as roads, bridges, enemy installations and potential helicopter landing zones, and was a useful adjunct to the vertical photography from US sources.³⁰

Non-Visual Sensors

Two non-visual sensors were routinely used by US aircraft in support of 1 ATF: sideways looking airborne radar (SLAR) and an infra-red (IR) detection system, known as 'Red Haze'. Both systems were mounted on US Army OV-1 *Mohawk* aircraft operated from Vung Tau, but USAF RB-57 and RF-4C aircraft also carried IR sensors.³¹ The SLAR worked by transmitting a pulse of radio energy from a pod on the side of the aircraft which, when reflected by a moving object of a certain size, produced a return on the radar's control panel. The SLAR worked in all weather conditions and could penetrate some types of jungle vegetation. However, the resulting images were difficult to interpret and the system was susceptible to false alarms.³² The 'Red Haze' IR system detected the heat differentials between objects on the ground, with hotter objects such as personnel and fires standing out from the surrounding terrain. The system had a moderate capacity to penetrate jungle vegetation and could work during both day and night.³³ Like SLAR, the IR images were difficult to interpret and the system was susceptible to false alarms. The information gathered by SLAR and 'Red Haze' missions were forwarded to the Air Intelligence Section by means of a signal message, indicating the locations where movement was detected.³⁴

In mid 1968 the Air Intelligence Section arranged for the loan of an XM-3 Airborne Personnel Detector (APD), nicknamed the 'people sniffer'.³⁵ The APD was mounted on a helicopter, sampling air through a flexible hose, which was then analysed by a variety of sensors to detect the presence of smoke and ammonia. High concentrations of these substances were an indication of fires and the presence of humans.³⁶ Missions were mostly flown using Royal Australian Air Force (RAAF) UH-1 *Iroquois* helicopters, with an Air Intelligence Section member operating the APD, although *Sioux* helicopters from 161st Reconnaissance Flight were sometimes used.³⁷ Missions were generally flown in the morning, using a low-level search pattern of parallel tracks over a selected target area. Areas of strong concentrations were recorded by the operator, who plotted them on a map upon his return to base.³⁸ The APD was not a precise instrument, because wind conditions could distort the actual location of the emissions and it was also susceptible to false alarms. Some detachment members have indicated that enemy units attempted to deceive the APD by placing small cans of urine in trees in areas away from their base camps.³⁹ However, the system was considered useful in providing locations of possible human activity to be cross-checked against other reporting.⁴⁰

Air Intelligence Products

The Air Intelligence Section maintained a photographic library of all parts of the 1 ATF area of operations, to be drawn on by 1 ATF units for operations.⁴¹ These photographs supplemented the map coverage available and often provided more accurate and up-to-date information. One important use of vertical photography was the updating of topographic maps. The original maps provided from US and Vietnamese sources often lacked detailed topographic data and updated editions produced by a detachment of the 1st Topographic Survey Troop in Nui Dat included the data from this imagery.⁴² One important product of the section was a large-format publication with photographs of all South Vietnamese military outposts in Phuoc Tuy province, which was distributed throughout 1 ATF. These photographs were annotated to show potential

helicopter landing zones and avenues of approach.⁴³ The outposts were a popular target for enemy attacks and the publication allowed quick planning of counter attacks by 1 ATF units in response.

The Counter Intelligence Section

The Counter Intelligence (CI) Section had an established strength of seven, headed by a warrant officer or staff sergeant, but in practice cross-postings within the detachment increased or decreased its strength considerably.⁴⁴ The main task of the CI Section was to protect friendly forces from the enemy intelligence system. This involved defensive military security duties; liaison with local police, military and government personnel; the maintenance of an agent and informant network; and offensive counter intelligence operations. The emphasis given to these tasks varied according to the tactical situation and the influence of the officer commanding the detachment.⁴⁵ In the context of South Vietnam, the primary target of the section was the VCI, which included an undercover network that supported military operations, as discussed previously.

Military Security Duties and Records

Military security duties undertaken by the section were primarily of a defensive nature, to ensure that security measures required of 1 ATF units were being properly applied. These duties included unit security surveys, the issue of passes for non-1 ATF personnel, investigations into breaches of security, and classified document checks.

The CI Section also maintained detailed records on a variety of security and counter intelligence issues, the most important being the database of VCI suspects. This information, held as a card file and a 'black list' of suspects, was collated from a variety of sources. The detailed information in the records enabled the positive identification of VCI suspects and underpinned offensive counter intelligence operations.⁴⁶

Liaison and Human Intelligence Network

Liaison with civil and military authorities was a prime responsibility of the CI Section, particularly where operations against the VCI were contemplated. A number of agencies, including the National Police and District Headquarters, were sources of information on the VCI. In addition, because village and town areas in Phuoc Tuy were not part of the 1 ATF area of operations, the permission, and active cooperation, of the local Vietnamese authorities was required for any Australian operations in these areas. Two methods of liaison were used during the period 1966–71. The first method was regular liaison visits from Nui Dat to the provincial and district centres; and the second was the posting of non-commissioned officers (NCOs) to district towns on a semi-permanent basis. The latter proved more successful in terms of fruitful relationships, but was costly in manpower.

A network of agents and informants, established and maintained by the CI Section, contributed to the records and databases on VCI suspects. In contemporary doctrine, an informant was a casual or regular provider of information, while an agent was tasked to gather intelligence, usually on a full time and/or paid basis.⁴⁷ While hampered by cultural differences and an effective enemy security system, the CI Section established an effective low-level HUMINT network that reported on enemy activities—mainly in the villages.⁴⁸ The network was generally run by the district-based NCOs, as part of their normal duties.⁴⁹ To gain the best information, the NCOs would carefully vet their sources and avoid the payment of money for information. Rewards such as rice, soap and other commodities were preferred, but were only given when the information had been proven correct.⁵⁰ The reports resulting from informant and agent information were useful and on occasion led to successful Australian operations.

Offensive Counter Intelligence—'Acorn' and 'Phoenix' Operations

Offensive counter intelligence operations directed at degrading or destroying the enemy's intelligence-gathering capability

commenced in late 1967 under the direction of Captain Geoff Boscoe, the officer commanding the detachment. His initial concept was to provide specialist support to infantry cordon and search operations to identify and detain members of the VCI. This changed in early 1968 to a situation where the detachment planned cordon and search operations with infantry in support.⁵¹ Termed 'Acorn operations',⁵² their success relied on detailed records and an effective search strategy. Directed by good intelligence, VCI members could be actively targeted, rather than relying on a generally ineffective screening in a normal cordon and search operation. Concerned with security, a cordon and search with a significant infantry presence (i.e. a company) was used as a means of mounting *Acorn* operations, but were also undertaken by smaller groups comprising the detachment and its Vietnamese counterpart.⁵³

In late 1968 the *modus operandi* of *Acorn* operations was changed to 'selective pick-up' by the new officer commanding, Captain Jack L'Epagniol. These were directed at the known location of suspect individuals and conducted using mostly intelligence staff with some reinforcements.⁵⁴ After four weeks of planning, *Acorn* 17 was conducted on 25 September 1968 in the village of An Nhut and resulted in the detention of 13 suspects, 12 of whom were later confirmed as being on the 'black list' of VCI members.⁵⁵ While subsequently ordered to conduct such operations on a weekly basis with similar results—a nearly impossible task—the selective pick-up model remained in use and provided successful results in subsequent years.⁵⁶

The advent of the US *Phoenix* program (and its Vietnamese *Phung Hoang* counterpart) in 1968 was designed to target the VCI directly on a nationwide basis, but met with limited success. As elsewhere in Vietnam, the attempt to coordinate the various competing South Vietnamese agencies proved impossible in Phuoc Tuy.⁵⁷ While participating in the *Phoenix/Phung Hoang* coordination centres at provincial and district levels, the CI Section continued to mount *Acorn* operations with more success than the better resourced US/

Vietnamese system, a point not lost on US intelligence officials in Phuoc Tuy.⁵⁸ The strengthening of the Vietnamisation policy in late 1970 changed the practice of *Acorn* operations, with Vietnamese forces detaining VCI members identified by the detachment, rather than Australian personnel making the arrests.⁵⁹

The Prisoner of War Interrogation and Linguist Section

The detachment's PW Interrogation and Linguist Section had an established strength of three, consisting of the detachment's officer commanding (a captain) and two junior NCOs.⁶⁰ However, the section was reinforced by cross-postings within the detachment, and supplemented by the attachment of (on average) five linguists from HQ AFV, as well as personnel from 10 MID and attached ARVN interpreters.⁶¹ The tasks of the section included the interrogation of detainees and PWs, the exploitation of captured documents and weapons, and linguist support to 1 ATF.

Interrogation

The counterinsurgency nature of the conflict in South Vietnam greatly complicated the identification and processing of personnel detained by allied forces. A wide variety of people were detained by 1 ATF and a key task of interrogators was to identify and categorise them. The categories recognised by the US and Vietnamese authorities were as follows:

- innocent civilian;
- civil defendant;
- civil defendant (VCI);
- returnee;
- prisoner of war; and
- doubtful case.⁶²

The categorisation determined the length of any further detention by 1 ATF and where the detainee would be sent next. PWs went into the US PW system, civil defendants were turned over to provincial

authorities, and returnees were transferred to the Chieu Hoi program.⁶³ The latter program encouraged the voluntary surrender of enemy personnel and retrained them for entry back into South Vietnamese society. A proportion of returnees volunteered to assist allied forces as combatants and guides under the 'Kit Carson Scout' program, which was operated by 1 ATF under the 'Bushman Scout' title.⁶⁴

Limitations were placed on 1 ATF for the interrogation of detainees of all categories. PWs could only be held for 24 hours after capture and the Geneva Conventions were to be applied.⁶⁵ The Conventions were generally followed, one notable exception being the infamous 'water torture' incident of October 1966, where the interrogation was conducted by a member of the detachment.⁶⁶

Language differences proved to be the greatest barrier to effective interrogation, with even graduates of the 12-month Vietnamese course at Point Cook finding it difficult to master the nuances and colloquialisms of the VC and local lexicons. To a great extent this was overcome by close cooperation with the interrogators of the Vietnamese 10 MID, who conducted the interrogations assisted by Vietnamese-speaking Australian personnel.⁶⁷ The interrogators generally found their subjects to be cooperative, as very few enemy personnel apparently had received resistance to interrogation training.⁶⁸ This was assisted by using a 'show of knowledge' approach, where the interrogator used intelligence already held on a detainee's unit to demonstrate that they knew a great deal about them, generally surprising the detainee and eliciting their cooperation.⁶⁹ A small percentage of detainees refused to talk and this usually indicated that they were experienced members of the VC, since very few enemy personnel had the discipline and training to attempt to stonewall allied interrogators. While effective in denying 1 ATF immediate tactical intelligence, such an approach generally marked the detainees for detailed interrogation at higher levels of the PW system.⁷⁰

Document, Weapon and Equipment Exploitation

The PW Interrogation and Linguist Section also exploited captured documents for intelligence value, but the sheer volume of material recovered sometimes prevented an in-depth analysis. The VC employed an effective courier system and both military and political elements produced a great deal of documents in the course of their normal duties.⁷¹ In addition to these official documents, many enemy personnel would (against orders) also carry their own diaries and letters from which some useful information could be extracted.⁷² To deal with the volume of material, a screening process was used to identify documents of immediate value for translation. Less valuable documents were summarised in a brief report of their contents. Most document exploitation was carried out by 10 MID members, with the most valuable documents and the 10 MID assessment being translated into English by Australian linguists.⁷³ Documents were only held for 24 hours before being passed up to the Combined Document Exploitation Centre in Saigon.⁷⁴

Captured weapons and equipment also provided technical intelligence, with all such items captured being passed to the detachment by the capturing unit. A register was kept of all weapons captured, which provided an insight into the sources of supply and the capabilities of enemy units.⁷⁵ Any unusual items were forwarded to the Combined Material Exploitation Centre in Saigon, while routine items were returned to the capturing unit.⁷⁶

Linguists

While the tasks of interrogation and document translation required the intensive use of linguists, the PW Interrogation and Linguist Section was also responsible for the management of both Australian and South Vietnamese linguists assigned to 1 ATF. These came from a variety of sources, as follows:

- Australian graduates of the 12-month Vietnamese course at the RAAF School of Languages, Point Cook (referred to as 'linguists' by the Australian Army);⁷⁷

- Australian graduates of the three-month Vietnamese course at the RAAF School of Languages, Point Cook (referred to as 'interpreters' by the Australian Army);⁷⁸
- English-speaking ARVN personnel (generally sergeants) attached to 1 ATF under the Military Assistance Command Vietnam (MACV) ARVN Interpreter Program;⁷⁹
- 1 ATF members who had received short training courses in colloquial Vietnamese in Australia or Vietnam;⁸⁰
- English-speaking members of 10 MID; and
- Civilian Vietnamese linguists recruited in small numbers for duties with 1 ATF.⁸¹

Despite the variety of sources, the demand for linguists always outstripped their provision. For example, an August 1966 assessment of linguist requirements stated that, in order to provide translators down to platoon level, an 'operationally desirable allocation' was a total of 77 interpreters.⁸² A January 1967 letter revealed that 1 ATF only had 55 interpreters of all types: three Point Cook graduates, 12 attached ARVN Sergeants, 20 civilian Vietnamese linguists and 20 1 ATF members from a colloquial Vietnamese course held in Saigon.⁸³ The standards of the latter two categories were not as high as desired, with the former being phased out of service with 1 ATF⁸⁴ and the latter being paired with ARVN interpreters to improve their overall effectiveness.⁸⁵ Despite increases in the supply of interpreters from all sources, 1 ATF's requirements were never fully met for the duration of its time in Vietnam. The administration of linguists and interpreters attached to 1 ATF was a difficult and time-consuming task for the detachment, due to the scarce number available, the high operational tempo and competing requirements.⁸⁶

The 10th Military Intelligence Detachment (ARVN)

Under the MACV Military Intelligence Detachment Exchange Program,⁸⁷ 1 ATF was assigned an ARVN Military Intelligence Detachment for intelligence support duties in September 1966.⁸⁸ The 10 MID was attached to the Det 1 Div Int Unit (SVN), the integration of the two being one of the few instances of Australian and ARVN units cooperating closely over an extended period of time. Commanded by a captain, 10 MID had an establishment strength of six officers and ten enlisted personnel. It was organised into a headquarters element, a PW Interrogation Section, a Document Analysis Section and an Order of Battle Section.⁸⁹ While 10 MID was based at the Van Kiep training centre in Baria (the provincial capital), personnel were routinely attached to their counterpart sections of Det 1 Div Int Unit (SVN) for long periods of time.

Close cooperation in the interrogation of PWs and the translation of documents provided the in-depth experience of local conditions that the Australian linguists lacked, no matter how lengthy their training. In practice, 10 MID were the primary interrogators and document exploiters, working alongside Australian personnel who provided additional technical expertise and translated information gathered into English in a format suitable for use by 1 ATF.⁹⁰

The Order of Battle Section maintained detailed records on the enemy units operating against 1 ATF and it was from these records that information supporting both interrogations and *Acorn* operations was drawn.⁹¹ Two other tasks were conducted by 10 MID—the running of an informant/agent network, and liaison with other South Vietnamese authorities. In both instances, the use of indigenous Vietnamese personnel working on behalf of 1 ATF proved to be a successful adjunct to existing Australian efforts in the same areas.⁹²

Detachment Reporting

Each of the individual sections of Det 1 Div Int Unit produced reports specific to its area of expertise, which were then forwarded by detachment headquarters to the intelligence staff of HQ 1 ATF. Air Intelligence Section reporting was comprised of both US-sourced and self-generated products. The former included photographic interpretation reports of vertical photography and plotted results from SLAR and 'Red Haze' missions.⁹³ The section also produced reports based on hand-held photography, reports from visual reconnaissance missions, and plotted results from 'people sniffer' missions.⁹⁴ The CI Section produced a variety of reports, including information gathered from liaison, informant and agent reports, and after-action reports from *Acorn* operations.⁹⁵ The liaison and agent reports usually carried an assessment of the accuracy of the information and the reliability of the source. The PW Interrogation and Linguist Section produced a number of reports, including preliminary and detailed interrogation reports, and both precis and full translations of captured documents.⁹⁶ This was in addition to the documentation necessary to process each detainee, including short and long detainee report forms.⁹⁷ The Vietnamese 10 MID produced a variety of reports in ARVN-standard formats, the most important of which were translated into English by Australian linguists before being forwarded to HQ 1 ATF.⁹⁸

After being logged in by HQ 1 ATF intelligence staff, the various reports were assessed and collated with other intelligence received to provide a full 'picture' of enemy activity. Some reports, such as those from air reconnaissance, were always included in the regular task force intelligence summaries, but usually reports from the detachment contributed to the pool of information from which assessments were made.⁹⁹ On occasion, reports were of such importance that they were included, in full, as annexes to the intelligence summaries.¹⁰⁰ An assessment of the effectiveness of this reporting, and the activities of 10 MID generally, will be made in a later chapter.



Plate 1:
Member of Detachment
1st Divisional Intelligence
Unit (South Vietnam) operating
the XM-3 'people sniffer', 1971.

(Photo courtesy of the Australian
War Memorial; Australian War
Memorial Negative, Number
AWM CUN/71/0404/VN)

Plate 2:
Officer Commanding
Detachment 1st
Divisional Intelligence
Unit (South Vietnam)
and his Vietnamese
counterpart interrogating
a captured Viet Cong
member during the
cordon and search of a
village in 1968.

(Photo courtesy of the
Australian War Memorial;
Australian War Memorial
Negative, Number
AWM ERR/68/0724/VN)



CHAPTER 3

MODUS OPERANDI OF 547 SIGNAL TROOP

Introduction

The role of 547 Signal Troop was to provide SIGINT support to 1 ATF.¹⁰¹ The troop provided what would now be described as electronic warfare support, divided into the tasks of search, intercept, direction finding (location), and analysis.¹⁰² The troop was raised as a deployable element of the 7th Signals Regiment (located at Cabarlah, Queensland) specifically for Vietnam, although similar units had been deployed during the Malayan and Borneo campaigns.¹⁰³ The organisation of the troop evolved during the conflict and included sections specialising in search and interception, analysis, airborne radio direction finding (ARDF) and the operation of experimental high-frequency direction-finding equipment.¹⁰⁴

Commanded by a captain or major, the troop had a strength of 45 personnel for the majority of its deployment to South Vietnam. The work of the troop was marked with great secrecy and very few individuals outside it knew of the troop's real role or could access its reporting. 547 Signal Troop became operational on 24 June 1966 and ceased operations on 13 December 1971.¹⁰⁵

Doctrinal Aspects

The first official Australian doctrine on the subject, Training Information Bulletin No. 32, *Electronic Warfare*, produced in 1979,¹⁰⁶ defined SIGINT as comprising two parts—communications intelligence and electronic intelligence.¹⁰⁷ It defined communications intelligence as ‘that technical material and intelligence information derived from electromagnetic communications systems by other than the intended recipient or users’.¹⁰⁸ The publication also broke down electronic warfare into three main components—electronic warfare support measures, electronic countermeasures and electronic counter countermeasures.¹⁰⁹ The first involves the passive collection of communications and electronic intelligence and is the form of electronic warfare most practised by Australian specialist units on operations in the post-war period. It was further subdivided into four sub-components: search, intercept, direction finding, and analysis, as illustrated in *Table 2* below.¹¹⁰

Communications Intelligence (Electronic Warfare Support Measures, as applied to enemy communications systems)	Search	Specific Search General Search
	Intercept	Interception (Listening) Recording
	Direction Finding	Direction of Arrival Method (Ground and Air) Single Station Locator Time of Arrival Method (Ground)
	Analysis	Traffic Analysis Cryptanalysis

Table 2: Components of Communications Intelligence¹¹¹

Troop Organisation

On arrival in May 1966, 547 Signal Troop was organised into three sections: operations, processing, and administration. The operations section was responsible for operating the ‘set room’, where the radio monitoring equipment was located. The processing section was responsible for the three functions of translation, traffic analysis and cryptanalysis, as well as disseminating the resulting intelligence. The administration section provided a number of support functions, such as the communications centre and technical support. A fourth section was later created to administer the two direction-finding systems (see *Diagram 3* below).

The troop was originally limited to 15 personnel in total and its role restricted to forwarding reports from the extensive US military SIGINT organisation already in place in Vietnam.¹¹² However, both the manning and the role of 547 Signal Troop expanded within 12 months to provide an effective Australian SIGINT capability.

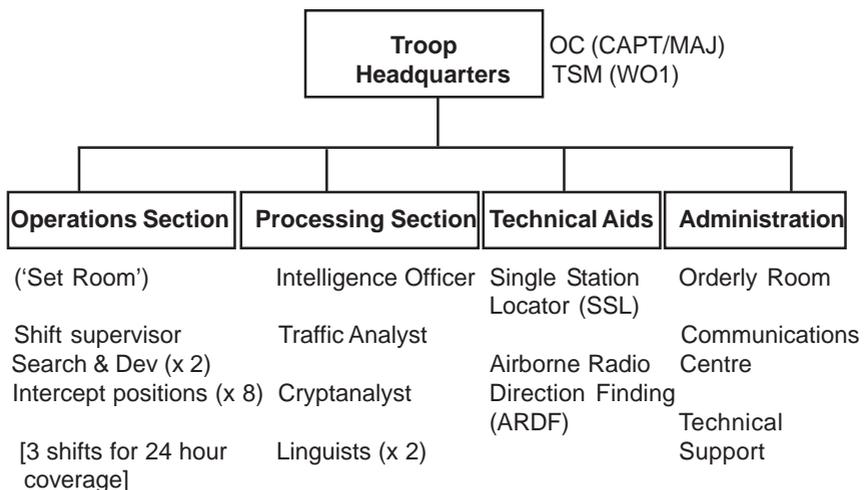


Diagram 3: Organisation of 547 Signal Troop¹¹³

The Enemy Communications System

The enemy faced by 547 Signal Troop had a very efficient communications system. The VC relied on a mixture of courier, line and radio communications, the latter being limited to the bare minimum required due to the possibility of interception.¹¹⁴ Radio communications equipment was generally limited to battalion level and above, in contrast to US and Australian practice where radios were used down to platoon level. The enemy radio operators were well trained and very disciplined, having been carefully selected for their abilities.¹¹⁵ The predominant mode of radio communications was morse code transmissions in the high-frequency band.¹¹⁶

The enemy used a number of methods to enhance their communications security and complicate the task of allied SIGINT units. Discrete radio nets comprising only a few stations were maintained. For example, a regimental net would comprise only the regimental headquarters station and the stations for its subordinate battalions. Stations on the net would only communicate on a pre-arranged schedule, with transmissions split between two frequencies, rather than one. Signal operating instructions were changed on a regular basis, which could entail a change in call signs, frequencies used and scheduled transmission times.¹¹⁷ Transmission time was minimised and non-essential traffic banned. Operators used low power settings and configured their antennas to direct their sky-wave transmissions—both techniques limiting the ability to detect and accurately locate the radio. The radio operators would also transmit from a location remote from the actual unit to which they were allocated.¹¹⁸

In the context of 1 ATF, the main enemy combat units to use radio communications were D445 Battalion, 274 and 275 VC Regiments and 5th VC Division.¹¹⁹ Other organisations using radio communications were Ba Long province headquarters, the headquarters of MR7,¹²⁰ and a variety of intelligence gathering elements deployed throughout the region.¹²¹ Using the definition of

SIGINT previously discussed, the functions of the troop can be examined in detail. These functions are search and intercept, direction finding, analysis and reporting.

Search and Intercept

The search and intercept function was undertaken in the 'set room', a small shed that housed the radio receivers and associated equipment.¹²² An antenna farm was initially established in the troop area and later expanded to other areas adjacent to the main helicopter pad nearby.¹²³ The 'set room' was manned by soldiers from the Signals Corps—from the Operator Signals trade. The first operators sent to Vietnam in May 1966 were all considered to be experts in their field.¹²⁴ Personnel subsequently deploying to Vietnam completed a 'Pre-Vietnam Orientation Course' at Cabarlah using live tapes of enemy communications sent from the troop.¹²⁵

The personnel of 547 Signal Troop were considered to be very professional, one officer noting that the SIGINT soldiers who did repeated tours of duty overseas may only be described as a highly dedicated group of soldiers. They were held in very high regard by all other nations at the highest level.¹²⁶

The 'Set Room'

The set room consisted of two long benches with 10 operator positions. Each position had two *Collins* R-391 high-frequency receivers and a tape recorder mounted in a rack with fittings for headsets and other ancillary equipment.¹²⁷ Despite one account to the contrary, no computers were ever used by the set room.¹²⁸ At least two of the positions were dedicated to 'search and development'—a general search for enemy transmitters.¹²⁹ The remainder of the positions were allocated to search for particular targets, for example 274 VC Regiment or D445 Battalion. A shift supervisor, usually a senior NCO, would oversee the shift and monitor the workload.¹³⁰



Plate 3:
Members of 547 Signal Troop at work in the 'set room',
operating radio receivers and associated equipment, 1969.
(Photo courtesy of the Museum of Military Intelligence, Canungra)

The set room worked on a 24-hour basis, using three shifts. The day shift (from approximately 0800 hours to 1700 hours) and the evening shift (from approximately 1700 hours to midnight) were the main shifts, with all 10 positions usually being manned. The busiest times on shift were early mornings (0500 to 1000 hours) and evenings (2100 to 0100 hours)—the most common time periods for enemy radio schedules. The night shift (from approximately midnight to 0800 hours) experienced less traffic and only a small number of operators were rostered on.¹³¹ In a 1967 proposal to increase the manning of the troop, it was noted that the operators in the set room were employed for a minimum of 63 hours per week, with one rest day every 16 days if operational tempo permitted.¹³²

Target Allocation

Operators were allocated their targets in accordance with current priorities. These targets were displayed on a board in the set room and each position had a small card that showed the last known and predicted information on the target. This information included call signs, frequencies used and schedules. Despite this formal allocation of targets, operators would help others to search for their targets and assist in recording their traffic.¹³³

Forward Operations

On occasion, search and intercept operations were conducted in the field, but these tended to be the exception rather than the rule. They included Fire Support Base (FSB) Coral in May 1968, the 'Horseshoe' position and FSB Picton and FSB Barbara in 1969, accompanying an Special Air Service (SAS) patrol into the May Taos in July 1970, and a deployment to assist the US 25th Infantry Division near Xuan Loc in February 1971.¹³⁴ As a result of the forward deployments in 1968, the troop was allocated an M577 Armoured Command Vehicle (ACV) that included a basic search and intercept capability.¹³⁵ The ACV is dealt with in more detail below.

Direction Finding

The task of accurately locating enemy radio transmitters by direction-finding methods was made difficult by a combination of natural and man-made factors. When a high-frequency radio normally transmits, it produces two signals: a ground wave and a sky wave. The ground wave follows the surface of the earth for a distance in the tens of kilometres. The sky wave bounces off the layers of the ionosphere and returns to earth, the signal bouncing between the two for distances of up to several thousand kilometres.¹³⁶ Traditionally, the ground wave transmission is used to calculate the direction to the transmitter, as it radiates in straight lines outwards from the antenna. The sky wave is more difficult to use for direction finding, as the bouncing of the signal from the ionosphere changes the direction of the beam in all three dimensions. In addition, the height and number of layers in the ionosphere changes over a 24-hour period, affecting what frequencies can be used and how the signals are reflected.¹³⁷

In South Vietnam, the terrain and jungle vegetation absorbed the ground wave signals, which were further weakened by configuring antennas to minimise ground wave transmissions. The enemy often used their antennas to create a 'near vertical incidence sky wave', where the signals would strike the ionosphere at near to 90 degrees, creating high angle but relatively short range 'hops' that greatly complicated direction-finding efforts.¹³⁸ In addition, the ionosphere over tropical areas (including Vietnam) had several unusual characteristics, such as shifting and angled layers, which hindered direction-finding calculations.

The US forces in Vietnam found it difficult and even dangerous to use traditional ground-based direction-finding methods to locate enemy radio transmissions. Fixed installations could not detect and accurately fix VC radios, and lacked the long baselines normally required. The limited ground wave meant that US Army operators had to be within a kilometre of an enemy radio to locate it with their standard portable equipment, the AN/PRD-1.¹³⁹ The US solution to the direction-finding problem was to use aircraft to intercept the sky

wave signal before it bounced off the ionosphere.¹⁴⁰ On arrival in Vietnam, 547 Signal Troop relied on the US ARDF aircraft to provide direction-finding 'fixes' on enemy transmitters, as ground-based systems were not feasible.¹⁴¹

One early example of direction finding was the tracking of the radio of 275 VC Regiment in the two weeks prior to the Battle of Long Tan in August 1966. Using US ARDF assets, 547 Signal Troop had tracked the radio as it moved in tactical bounds towards the 1 ATF base at Nui Dat from the vicinity of Xuan Moc.¹⁴² The issues associated with the reporting of this information are dealt with in detail below.

Airborne Radio Direction Finding

Due to the lack of an Australian direction-finding capability in Vietnam, research was conducted at the Weapons Research Establishment to produce ARDF equipment for use by 547 Signal Troop.¹⁴³ Initial experiments in early 1967 proved unsuccessful, but an operational set of equipment was deployed to Vietnam in September 1967.¹⁴⁴

The Australian ARDF equipment adopted a different approach than the US systems, driven as much by the need for economy as the tactical situation. US ARDF aircraft were specially modified for their role and were easily identified due to their large and distinctive antenna arrays. The US aircraft obtained their readings by flying towards an enemy radio station when it transmitted. The aircraft type and flight profile often alerted the enemy who ceased transmissions immediately.¹⁴⁵

The Weapons Research Establishment's ARDF system comprised a rack of equipment that could be fitted as required in the cabin of a 161st Reconnaissance Flight *Cessna* 180 light aircraft. The only visible external difference to the aircraft was a small rotatable antenna dome under the fuselage. When a radio was detected, the aircraft was flown at a constant speed, altitude and direction, with

the operator rotating the antenna to get a series of bearings to the transmitter. Unlike the US aircraft, the flight profile of the Australian aircraft was difficult to distinguish from normal flying operations. The bearings were collated on the ground to provide an accurate location for the enemy transmitters.¹⁴⁶ On average, the accuracy of the fix varied between 25 metres and 250 metres,¹⁴⁷ this being much more accurate than the US ARDF aircraft, which could range up to 10,000 metres.¹⁴⁸



Plate 4: ARDF Console installed in Pilatus Porter aircraft.
(Photo courtesy of the Museum of Military Intelligence, Canungra)

Up to three missions were flown daily with the single set of ARDF equipment.¹⁴⁹ While the nature of the flights was not obvious to the enemy, the aircraft were flown well within range of machine-gun fire. The aircraft were fired upon on many occasions, with some damage being incurred. The most serious instance of this occurred in August 1968, when a *Cessna* 180 on ARDF duties was forced to crash-land when a bullet struck its propeller.¹⁵⁰ In mid-1970, a second-generation set of ARDF equipment began operating in Vietnam. Designed to operate in the *Pilatus Porter* aircraft that was beginning to replace the *Cessna* 180, the equipment was a more engineered version but operated on the same basic principles with similar components.¹⁵¹ A second set of equipment for the *Pilatus Porter* aircraft arrived in April 1971, which enabled two aircraft to be on station at once and up to six missions to be flown each day.¹⁵²

The 'Single Station Locator'

Alongside the ARDF system, the Weapons Research Establishment also developed a ground-based direction-finding system designed to operate against the type of transmissions encountered in Vietnam. Known as the 'single station locator' (SSL or 'cell'), the system worked by measuring the height of the ionosphere and the differences in the time and angle of a single radio wave striking several antenna elements.¹⁵³ These three-dimensional measurements were then fed into an early-model computer that would then, theoretically, fix the location of the enemy transmitter.¹⁵⁴ The advantage of the SSL was that, unlike US systems, it could fix sky wave signals from a single location on the ground.

While considered experimental in nature, the SSL was deployed to Vietnam in October 1968.¹⁵⁵ The SSL was placed on a prepared site at the base of Nui Dat hill, away from the main troop area. The array was controlled by computer equipment in an air-conditioned shipping container. One safety concern was with the ionosonde, which transmitted a powerful radio signal to measure the height of the ionosphere. A fire in the adjoining artillery ammunition area in

1968 was initially blamed on the ionosonde, but was eventually traced to an ammunition fault. However, this did not stop the ionosonde being blamed for every incident of radio interference in the 1 ATF base area, regardless of whether or not it was functioning at the time.¹⁵⁶

Due to the unusual characteristics of the ionosphere in tropical areas and the novelty of the SSL concept, the system was not considered to be accurate and reliable enough to be a continuous and vital part of the troop's operations. The accuracy of the system was in the tens of kilometres and direction-finding fixes could vary dramatically. One officer stated that the value of the SSL was in providing a general location to direct ARDF operations, commenting that if 'it could give us what ball park to look in, the ARDF would find the ball'.¹⁵⁷ While the effectiveness of the system was sometimes in doubt, the new technology of the SSL attracted a series of visitors from US units and later matured into an effective direction-finding system.¹⁵⁸

Analysis

The analysis of enemy communications was undertaken by the processing or intelligence section, comprising both Signals and Intelligence Corps personnel. The section usually included individuals trained in traffic analysis and cryptanalysis, as well as linguists fluent in Vietnamese.¹⁵⁹

The initial strength of the processing section in 1966 was three Intelligence Corps personnel, a warrant officer, a staff sergeant and a corporal, the latter being a Vietnamese linguist.¹⁶⁰ A second linguist was attached to the troop from HQ AFV on arrival in Vietnam.¹⁶¹ The first Intelligence Corps officer, a captain, was posted to the troop in May 1967, as part of the troop's expansion.¹⁶² The section was staffed by a mixture of personnel from the Operator Signals trade and the Analyst Special Duties trade, the latter being members of the Intelligence Corps. From 1967, the processing section generally

comprised five personnel: an intelligence officer (a lieutenant or a captain); a traffic analyst; a cryptanalyst; and two linguists.¹⁶³

The analysis of enemy communications can be described by using the analogy of a letter in an envelope. The information on the outside of the envelope, such as the address, will reveal a certain amount of intelligence, even if the letter inside cannot be read—this is traffic analysis. Cryptanalysis is the art and science of determining what the letter actually says. Linguists are then able to read the letter and translate the text into English.

Traffic Analysis

Traffic analysis examines items such as call signs, radio telephone procedure, the length of messages and the volume of traffic to identify stations and the nets to which they belong. In 547 Signal Troop, this was aided by the ability of the operators in the set room to identify individual enemy transmitters by their signal characteristics and radio operators by their 'fist', or idiosyncratic style of sending morse.¹⁶⁴ In addition, the direction-finding fixes from the ARDF aircraft would provide a location for the enemy transmitters. All this enabled stations to be identified despite changes in call signs or procedures, or even if the text of their messages could not be read. As one member of the processing section stated about traffic analysis, 'we could get a mountain of information without reading the message'.¹⁶⁵

A good example of traffic analysis was undertaken prior to the Battle of Long Tan in August 1966. During July 1966, the radios of HQ 5th VC Division, 274 VC Regiment and 275 VC Regiment had been identified in Phuoc Tuy province. The units were in a rest and retraining cycle, which was indicated by routine radio schedules and confirmed by corroborating intelligence. Around 29 July 1966, 275 VC Regiment started sending more traffic and longer messages, indicating a change in their activity. This, combined with the movement of the radio tracked through direction finding, resulted in a report of possible preparation for offensive action.¹⁶⁶

Cryptanalysis

The enemy used two types of code systems, which presented a cryptanalysis problem for the processing section. The first type was generally used by echelons at regiment level and above, and the second at battalion and company level.¹⁶⁷ Cryptanalysis remains the most sensitive aspect of SIGINT and the precise techniques used must remain classified. However, it has been noted that the occasional capture of enemy radio sets and codebooks greatly assisted in the cryptanalysis effort.¹⁶⁸

Translation and Assessment

If messages could be broken by the cryptanalyst, the linguists would then translate the plain-text Vietnamese message into English.¹⁶⁹ The last stage of processing was the assessment made by the intelligence officer. Combining the results of traffic analysis, cryptanalysis, translation and direction finding, an assessment of the identity of units, their location and activities would be made and formulated into a report.¹⁷⁰

Reporting

The final step in the troop's operations was to report the intelligence gained. Reporting was a sensitive issue, as any indication to the enemy that their traffic was being read could lead to simple but effective countermeasures that would deny future SIGINT. Similar to the security measures placed on *Enigma* decrypts in the Second World War, information about, or derived from, SIGINT in Vietnam was tightly held, or compartmented. Only those deemed to have a need to know were cleared and briefed on SIGINT. While these procedures were successful in protecting the work of 547 Signal Troop, the difficulty was in striking a balance between those who should have access to the information and those who should be denied access.

Compartmentation

The best example of the impact of excessive compartmentation is the prelude to the Battle of Long Tan in August 1966. As mentioned above, 547 Signal Troop had located and tracked a transmitter associated with 275 VC Regiment. At that time, only four people outside of the troop were cleared to receive its reports—all of them at HQ 1 ATF. These personnel were the task force commander, the senior operations officer (GSO 2 (Ops)) and the two intelligence officers (GSO 2 and GSO 3 (Int)). Due to the secrecy surrounding SIGINT in peacetime, senior officers had little or no exposure to it and, as a result, their ability to use it properly was limited. Only the intelligence officers had previous experience of SIGINT, although this was neither in-depth nor continuous. The information reported by the troop could be passed to battalion commanders, but they were not told of its source.¹⁷¹ As a result, indications of the movement of 275 VC Regiment were given short shrift at HQ 1 ATF until after the battle, when the troop's reporting was proved correct and it was given greater credence.¹⁷² The battalion commanders were also included in the small group of individuals cleared to receive the troop's reports directly.¹⁷³

The number of personnel cleared to see SIGINT slowly expanded until, by 1971, all battalion commanders, battalion operations officers, the commanding officer of the field artillery regiment, the officer commanding the SAS Squadron and the officer commanding 161st Reconnaissance Flight, among others, were able to see the troop's product. In addition, some others, such as battalion intelligence officers, were permitted limited access to that SIGINT directly related to operations being planned.¹⁷⁴

Types of Reporting

There were two main types of reporting conducted by the 547 Signal Troop. The first of these was immediate, when high-priority intelligence was identified and the information passed directly to HQ 1 ATF by the quickest possible means. The second was routine and

presented in the form of a daily brief to the task force commander and those officers outside the troop who were cleared to receive SIGINT.¹⁷⁵

As mentioned above, an ACV was modified to accept the secure communications equipment required to pass classified reporting from the troop to FSBs in the field. By using this link to the main troop facility at Nui Dat, representatives of the troop were able to give rapid answers to questions asked by 1 ATF staff. It became standard practice for the troop's ACV to accompany the HQ 1 ATF when it deployed away from Nui Dat.¹⁷⁶

The troop's reporting was also passed by the communications centre to 1 ATF's superior command, II FFV, and to US formations operating in adjacent provinces. The latter included, at various times, the 11th Armoured Cavalry Regiment, the 9th Infantry Division, the 2nd Brigade of the 25th Infantry Division, and the 3rd Brigade of the 1st Cavalry Division. The commanders of II FFV and at least one of the US formations thought the information so valuable that liaison officers were sent by helicopter daily to the troop to be briefed and relay the information back to their commanders.¹⁷⁷

Sanitisation

One method of passing intelligence gained by the troop to personnel and units not cleared to receive SIGINT was by the process of sanitisation. Sanitisation involved removing the details that indicated how the intelligence was gathered, thus disguising and protecting the source. These sanitised reports were referred to as 'special agent reports' (SPAR).¹⁷⁸ At least one battalion has referred to these reports in the history of its tour in Vietnam.¹⁷⁹

Acting on Signals Intelligence

The success of SIGINT operations produces a dilemma on what action should be taken as a result. Continued monitoring has the potential to produce high-quality intelligence, particularly if the enemy is unaware that its communications are being intercepted. On the

other hand, the information provides an excellent indication of the location of large enemy units that can be used for offensive action, such as artillery fire, air strikes or infantry attacks. The dilemma is whether to preserve the source of intelligence or risk losing it (in part or in whole) by attacking the radio and/or its associated unit. There were several examples of the latter approach, and 547 Signal Troop is credited with contributing to most major task force operations, as detailed in the following chapter.

CHAPTER 4

CONCLUSION

THE EFFECTIVENESS OF SPECIALIST INTELLIGENCE UNITS

Problems in Assessing Effectiveness

As discussed in the abstract, three interlocking issues will be examined in order to determine the effectiveness of the specialist intelligence units; namely their impact on the 1 ATF intelligence system, on the mounting of Australian military operations, and on the enemy forces opposing 1 ATF. It is difficult to make an accurate and definitive assessment of the effectiveness of these two units. Quantitatively, it is difficult to measure how specific intelligence sources contribute to intelligence assessments, which are then used to plan operations against the enemy.

Quantitative Assessment

In considering the contribution to the intelligence 'picture', a simple method would be to count the number of reports produced by the specialist units and then examine how much of this information is included in the intelligence assessments produced by 1 ATF

intelligence staff. However, this approach is not feasible, as these primary sources are incomplete. For example, the reports produced by the Det 1 Div Int Unit (SVN) were not kept in the unit due to limited secure storage facilities and thus do not appear on the official records for the detachment.¹⁸⁰ As discussed in the previous chapter, the majority of reports from 547 Signal Troop were given verbally or using limited written reports, none of which could be retained in hard copy by HQ 1 ATF. Sanitised material used by HQ 1 ATF did not identify the specific source of intelligence and was difficult to distinguish from other reporting. The 1 ATF intelligence log that recorded the receipt of all reporting was routinely destroyed after three months.¹⁸¹

In addition, unit reports were not necessarily identified in intelligence assessments issued by 1 ATF intelligence staff. As specified in contemporary doctrine, such intelligence assessments involved the collation and interpretation of reports from a wide variety of sources.¹⁸² An example of this process in Vietnam was the technique of 'pattern analysis'. The basis of this technique was the identification of patterns of activity over time by correlating information from a variety of sources. Indications of activity in a certain area and/or at a certain time reported by a number of sources were more likely to be correct than one report from a single source. The use of several sources provided confirmation and reduced the likelihood of false alarms and deception.¹⁸³ The conclusions arrived at via this method were considered to be more important than the individual reports themselves and, as such, the latter were not explicitly considered. While the daily intelligence summaries did occasionally refer to specific reports (e.g. interrogation reports) and include the full text as an annex, this was more often the exception than the rule.¹⁸⁴

A contemporary quantitative study of the effectiveness of intelligence sources was conducted by the US 9th Infantry Division in Vietnam in early 1969, but even this comprehensive study suffered from flaws in its methodology.¹⁸⁵ The study logged the total quantity

of intelligence reports received during a two-month period, noting the number of reactions to these reports and any 'confirmations' that the reports were correct.¹⁸⁶ Effectiveness was directly linked to the ability to mount quick response operations and the number of 'enemy eliminated', including PW and those killed in action. Each source was analysed in isolation from the others and rated according to the number of reports that were 'confirmed'.¹⁸⁷ This methodology ran counter to the general principles of intelligence as practised by most Western armies. First, intelligence is a product of 'all-source analysis', where reporting from all sources is combined and compared to reach an assessment. This process enables the strengths of certain sources to compensate for the weaknesses of others and guards against deception by seeking confirmation from more than one source. Second, the effectiveness of intelligence is not best measured by the ability to react quickly to a single report. Although timeliness is important, the nature of counterinsurgency warfare calls for considered analysis over a period of time, in order to determine the enemy's disposition and vulnerabilities, rather than reacting instantly to single reports.¹⁸⁸ Finally, the direct link to numbers of 'enemy eliminated' substitutes sheer numbers for a clear assessment of the overall effect on the enemy's military and political structures—a clear example of the much-criticised US 'body count' mentality in Vietnam.

Qualitative Assessment

David Horner discussed the problem of determining the value of intelligence produced by a single unit in his history of the Australian SAS:

The squadron continued to provide valuable information to the Task Force Commander. Sometimes the Task Force Commander could directly task his infantry units to follow up this information. Often the information became another piece in the continuing jigsaw puzzle of VC activities being worked on by Task Force intelligence staff. When battalions were given their briefings they were not always told that specific information had come from the SAS. It was therefore extremely difficult to quantify the worth of SAS

intelligence gathering, except to believe the testimonies of the various Task Force and battalion commanders.¹⁸⁹

In the same vein as Horner, the author has relied on the testimonies of selected intelligence officers to provide a qualitative assessment of the effectiveness of the two specialist intelligence units. For this purpose, eight officers serving on the 1 ATF intelligence staff were interviewed, representing most of the period under consideration.¹⁹⁰ These officers filled the positions of GSO 2 (Int) and GSO 3 (Int) and were directly exposed to the reporting of both units, and how it was used in the intelligence process and in the conduct of operations.

As discussed above, the nature of intelligence assessment as the result of all-source analysis made it difficult to discern the contribution of specific units. Most of the intelligence officers interviewed stated that it was impossible to grade one source against another, as each had its strengths and weaknesses. However, reporting provided by the Det 1 Div Int Unit (SVN) and 547 Signal Troop did possess certain characteristics that made it useful.

Contribution to the 1 ATF Intelligence System

547 Signal Troop

Of the eight 1 ATF intelligence officers interviewed, six had been exposed to SIGINT in at least one posting prior to Vietnam, but few received specific briefings on 547 Signal Troop before they arrived. On the 1 ATF intelligence staff, initially only the GSO 2 (Int) and GSO 3 (Int) were fully cleared to receive SIGINT reports, while later other intelligence officers (such as the Military Intelligence Liaison Officer) were cleared to see the reports on a selective basis.

All eight regarded 547 Signal Troop as a valuable source of intelligence, some stating that it was the single most important source available. The troop's reporting was the key indication of the location and activities of the main enemy combat units. The fact that only

major enemy units and organisations had radio communications made SIGINT an important source. As one senior intelligence officer stated: 'Very often, it was the only thing that gave you an idea where people were when you were out of contact with them. The only contact you had was through 547.'¹⁹¹ As a means of early warning, SIGINT was able to direct other intelligence sources to an area of interest, economising scarce resources, such as the SAS Squadron and the 161st Reconnaissance Flight.¹⁹² Timeliness was also a factor. As identified in a US study, the timeliness of intelligence reports (defined as the average hours elapsed from event to receipt of report) was notably quicker from 'technical' sources (including SIGINT) than from 'non-technical' sources, such as interrogation and agent reports.¹⁹³

However, the capabilities of the troop were tempered by the fact that, like all intelligence sources, SIGINT also had limitations. These included the possibility of deception, the occasional loss of coverage and the fact that the location of the radio was often remote from the unit it was supporting. Most of those interviewed stressed the need to integrate the intelligence gained by the troop with other intelligence in the process of all-source analysis to make up for these limitations. All of those interviewed agreed that two key issues with the usefulness of the SIGINT reporting were the stringent security requirements and the extremely limited number of people who knew of, or who could receive, the troop's product. However, each had a differing opinion on how far these measures could have been relaxed, some stating that little change was required, while others thought that distribution could have been expanded. In most cases, this had to be consistent with protecting the source of the intelligence.¹⁹⁴

Detachment 1st Divisional Intelligence Unit (South Vietnam)

All of the 1 ATF intelligence officers interviewed had been exposed to the capabilities represented in Det 1 Div Int Unit (SVN) in at least one posting prior to Vietnam, either by a posting to the unit or by working with the unit on exercises. In addition, subjects such as air photography, interrogation, agent handling and linguist duties were

taught on both general career courses and on specialist training courses at the Army Intelligence Centre.

The value of the intelligence gathered by the detachment was more cumulative in nature than that of 547 Signal Troop. Those interviewed thought that no single report was impressive; but rather reports built up over time to give a picture of enemy activity. Air intelligence sources such as IR and the 'people sniffer' were considered to be useful, when combined with other intelligence, in giving an indication of enemy locations. Vertical and oblique aerial photography was thought to be more useful for the planning of operations than the detection of the enemy. The reporting from the CI Section, whether from informants, agents or liaison with the South Vietnamese authorities, was useful over time, but subject to verification by other means due to the possibility of deception and error. Those who had direct knowledge of the anti-VCI *Acorn* operations considered them to be a very effective means of using the information gathered by the CI Section, as the records were thoroughly checked prior to any action. PW interrogation was not considered to be a fruitful source of intelligence, due to low numbers and the generally low rank of the personnel captured. However, several intelligence officers thought that surrendered personnel (or 'Hoi Chanh') were valuable, as they were willing to assist the Australians with information, some even becoming 'Bushmen Scouts' and fighting alongside their erstwhile enemies. Most of those interviewed considered document translation to be a very important source of intelligence, as the enemy commonly carried some form of documentation on them, providing a valuable insight into their organisation and operations. Most interviewed liked the integration of 10 MID, and thought it provided an excellent level of local knowledge and expertise.¹⁹⁵

Contribution to 1 ATF Operations

It is difficult to determine the precise impact of specialist intelligence units on the conduct of operations by 1 ATF, due to the fact that their reporting was combined with other intelligence into assessments

by the intelligence staff, which were then used by the commander and the operations staff. A direct causal link between intelligence and operations is hard to establish, as intelligence is only one of a wide range of factors that influence military command and control. One contemporary US study highlighted the fact that, despite the availability of intelligence, many significant contacts with enemy forces came as a result of a 'commander's intuition'—the ability to correctly assess where the enemy was located, based on accumulated combat experience.¹⁹⁶ However, those 1 ATF intelligence officers interviewed were able to nominate several significant operations that were initially triggered by reporting from the two units or where they had a strong influence on how the operation was mounted.

547 Signal Troop

In regards to 547 Signal Troop, very few of the task force commanders and almost none of the operations officers at HQ 1 ATF had previous exposure to SIGINT.¹⁹⁷ While most 1 ATF intelligence officers and senior members of the troop interviewed thought that the HQ 1 ATF staff developed a good understanding of SIGINT, there were several recurring problems. The first, mentioned above, was reinforcing the fact that the troop had located a radio, not necessarily a unit at a particular location, and that proper location of major enemy elements would require input from a wide range of sources. The second was the attitude towards SIGINT, which could vary widely. Some senior officers had to be convinced that the reporting was important and needed to be taken seriously. Others were the opposite, having an almost blind faith in the correctness of the reporting to the point where it eclipsed all other sources. Those interviewed generally thought that this was a result of inexperience and the 'air of mystique' surrounding SIGINT at the time.¹⁹⁸ The third problem was the extremely limited distribution of the troop's full reporting and the nondescript nature of sanitised reports, which made it difficult to convince the vast majority of officers in the battalions that the operations were being mounted on good intelligence. At most, only three officers in a battalion were cleared to receive SIGINT

reports (the commanding officer, operations officer and intelligence officer), while company commanders could not be told all the intelligence available or its source. The final problem was the question of whether to react to SIGINT by engaging the associated enemy units, or refrain from offensive operations in order to preserve the source of intelligence. This last point was always uppermost in the minds of 547 Signal Troop members when briefing 1 ATF staff on their intelligence. Those interviewed generally thought that the combination of all-source intelligence analysis and the enemy's knowledge of 1 ATF's operational methods was enough to disguise the fact that some operations were initially based on SIGINT.

The first real offensive actions based on the troop's reporting were the operations to capture or destroy an enemy radio in the Nui Dinh hills between July and October 1966. Given the codename *Dodo*, the radio was being used by a military intelligence team from COSVN to report allied movements along Route 15 between Vung Tau and Saigon. While the officer commanding 547 Signal Troop objected to the operations on the grounds that monitoring would continue to provide good intelligence if the radio was left unmolested, General William Westmoreland himself ordered that the radio be put out of action. While SAS patrols came close to locating the radio in July 1966, it was captured by a patrol from 6th Battalion, Royal Australian Regiment (6 RAR) in October 1966.¹⁹⁹ This operation, and a similar one by the SAS in June 1968, were rare in that they targeted a specific radio transmitter rather than an enemy unit or base area.²⁰⁰ On some occasions, artillery was permitted to engage single radio fixes, but with no known results.²⁰¹

The officers interviewed nominated several task force and battalion operations that were initiated or heavily influenced by 547 Signal Troop. In July 1967, Operation *Paddington* was mounted after the troop had detected the movement of 274 VC Regiment from its traditional base area of Hat Dich in the northwest of Phuoc Tuy to a new base north of Xuyen Moc in the east of the province. Initially the US II FFV commander did not believe the intelligence, but further investigation showed it to be correct. While the Australian-US-South

Vietnamese joint operation was unsuccessful in fixing 274 Regiment, it demonstrated the role of the troop in giving early warning of major enemy movements.²⁰² In April 1969, Operation *Federal* was mounted by 5th Battalion, Royal Australian Regiment (5 RAR) to search for the headquarters of the VC MR7, based on locations of radio transmissions from 547 Signal Troop. After locating the base camp on 3 April 1969, an assault was made which resulted in the headquarters being badly disrupted for some time afterwards.²⁰³ The reporting of the troop was extensively used in conjunction with other intelligence to plan Operation *Marsden*, a 6 RAR/New Zealand operation to attack a major logistics complex in the Nui May Tao mountains in December 1969. Not only was the operation a success, but the troop was able to monitor the VC commander's reaction to the attack via his radio transmissions.²⁰⁴ In June 1971, 547 Signal Troop tracked the movement of the 3rd Battalion of the 33rd NVA Regiment into the north of Phuoc Tuy province. Further intelligence from SAS patrols, aerial reconnaissance and 'people sniffer' missions located a likely base area near the Courtenay rubber plantation. Concerned about this serious threat to the withdrawal plans of 1 ATF, the commander of 1 ATF mounted Operation *Overlord* to fix and destroy the battalion. While *Overlord* was not a complete success, the SIGINT provided by the troop enabled follow-up operations to be mounted against the concentration of enemy units in the north of the province.²⁰⁵

The interviewees also nominated several incidents that demonstrate the limitations of SIGINT. The task force operations outside Phuoc Tuy province in 1968 and 1969 provided limited scope for support, as compared to operations inside the province, a common problem for all 1 ATF intelligence sources. This was especially the case at FSB Coral and FSB Balmoral in May 1968, where the tactical situation was changing too rapidly for even SIGINT to keep pace. Although monitoring of enemy tactical voice communications was undertaken, the time between these transmissions and an attack was too brief to provide any effective warning.²⁰⁶ In June 1969, strict radio silence by enemy operators is

believed to have enabled elements of the 33rd NVA Regiment and D440 Battalion to occupy the village of Binh Ba without warning, leading to a major battle with 5 RAR.²⁰⁷

Detachment of the 1st Divisional Intelligence Unit (South Vietnam)

As discussed above, the intelligence provided by Det 1 Div Int Unit (SVN) was more effective cumulatively than as individual reports. These reports tended to confirm other information, such as the 'sniffer' missions prior to Operation *Overlord* described above. As such, it is difficult to assess the influence of the detachment on 1 ATF operations. However, several of the interviewees have nominated operations that were initiated or heavily influenced by the detachment. In early 1970, intelligence gathered by a district-based counter intelligence NCO gave the first indications that a significant enemy force had moved into the Long Hai hills, east of Vung Tau. Further intelligence collection, including by 547 Signal Troop, indicated that D445 Battalion had moved to the area. In February 1970, 8th Battalion, Royal Australian Regiment (8 RAR) mounted Operation *Hammersley* to clear D445 from this base area, resulting in heavy fighting in well-defended bunker systems.²⁰⁸ In August 1970, a combination of intelligence gathered by the detachment and 547 Signal Troop led to a very successful ambush by 8 RAR near Hoa Long village. Informant and liaison reporting by counter intelligence NCOs revealed that the Chau Duc district company was being regularly resupplied from the village, using several possible routes from the Nui Dinh hills. A radio transmission from the Chau Duc district headquarters intercepted by 547 Signal Troop prompted a ground reconnaissance by members of the detachment that identified the most likely routes into the village. Using this information 8RAR set a platoon ambush on the night of 11–12 August 1970, which resulted in 19 members of the resupply party being killed and 10 being captured.²⁰⁹

On a smaller scale, the detachment, in conjunction with 10 MID, is credited with assisting in a number of cordon and search

operations.²¹⁰ As discussed above, those who had direct knowledge of *Acorn* operations rated them highly as a means of accurately targeting the VCI. These operations were far more effective against the VCI in Phuoc Tuy than the joint *Phoenix/Phung Hoang* programs. In 1971, an Intelligence Corps officer stated that *Acorn* operations had been responsible for 11 VC killed in action, 9 PW, 106 VCI detained and 248 VCI suspects detained. This was in addition to the capture of large quantities of documents and equipment and the destruction of tunnels, caches and hides.²¹¹

When discussing the use of intelligence in operations, including reporting from these two units, the issues faced by those at task force and battalion level were summed up best by Bailey:

Some newly arrived units did not know how to use the intelligence provided and expected too much from it. This was a function of inexperience and the range of new sources to which they were exposed for the first time. These sources provided a large amount of information and the units had to get used to the situation even though they had received little training in them. The problem, such as it was, tended to fade quickly as experience was gained.

Another problem was that some of the battalion (and even task force commanders) had not been fully trained with respect to the use of the intelligence available. This seems traceable to the nature of the peacetime exercises of the era. There was little opportunity to make up for the deficiencies of peacetime training in the field.²¹²

Impact on the Enemy

Extrapolating from the above discussion on operations, there is another degree of difficulty again in determining what impact the specialist intelligence units had on the enemy. At the point where battle is joined, the influence of intelligence ends and tactical proficiency takes over. As can be seen from the operations discussed above, even the provision of excellent intelligence is no guarantee of success in battle. From an enemy perspective, concealment,

dispersion and mobility were all used to prevent detection and evade allied troops. Even when engaged, the VC made strenuous attempts to deny Australian forces bodies, equipment, documents and prisoners that could provide accurate intelligence on losses suffered. Within VC units, precise casualty figures were tightly held and losses were understated in propaganda.²¹³ The VCI operated clandestinely among the population, proving an elusive foe.

The impact of the specialist units on the enemy was dependent on the types of operations being mounted by 1 ATF. These concepts for operations, divided roughly between either the 'main force' operations against major enemy units or 'pacification' operations against local units and the VCI, drove the intelligence system. The changing priorities of 1 ATF meant that the units had a varying impact on the enemy at different times. The nature of enemy radio communications meant that 547 Signal Troop could provide excellent intelligence on the location and activities of major enemy units. The varied capabilities of the Det 1 Div Int Unit (SVN), particularly in HUMINT collection, meant it was able to effectively target the VCI. The nature of their roles meant that 547 Signal Troop was at its best when 'main force' operations were mounted, while the Det 1 Div Int Unit (SVN) was of most use in 'pacification' operations. Each, however, contributed to the intelligence system regardless of the types of operations being conducted; with their reporting being assessed alongside intelligence gathered from other sources.

Conclusion

While the case studies presented here are limited in scope, they do give some indication that significant losses were inflicted on the enemy at various times as the result of reporting by these two units. While raw numbers are a meaningless measure of success in counterinsurgency warfare, a connection can be made between the human and material losses inflicted in the operations discussed above and the generally acknowledged success of 1 ATF in Phuoc Tuy province. The precise linkages between specialist intelligence units, the intelligence system, operations and the enemy are hard to

measure, but there is enough information to conclude that the two units provided a valuable contribution to the spectrum of operations conducted by 1 ATF in South Vietnam.

Notes

Chapter 1

- 1 Bruce Lyman, 'Military Intelligence: Sources' in Anthony Bergin and Robert Hall (eds), *Intelligence and Australian National Security*, Australian Defence Studies Centre, Australian Defence Force Academy, Canberra, 1994, p. 194.
- 2 Australian Army, *Land Warfare Doctrine 2-0: Intelligence*, HQ Training Command, Sydney, 2001, pp. 1–6.
- 3 Ian McNeill, 'To Long Tan: The Australian Army and the Vietnam War 1950-1966', *The Official History of Australia's Involvement in Southeast Asian Conflicts 1948-1975*, Allen & Unwin, Sydney, 1993, pp. 178–79, 239, 307–308.
- 4 'Military Working Arrangement between Chief of the General Staff Australian Army and Commander, United States Military Assistance Command, Vietnam', 17 March 1966, as quoted in McNeill, 'To Long Tan', p. 196. The tasks of 1 ATF were set out in the military working agreement were as follows:
 - (a) to secure and dominate the assigned Tactical Area of Responsibility in Phuoc Tuy province;
 - (b) to conduct operations related to the security of Highway 15 (linking Vung Tau and Saigon) as required;
 - (c) to conduct other operations in Phuoc Tuy as required; and
 - (d) to conduct operations anywhere in the ARVN III Corps Tactical Zone and subsequently in the adjacent province of Binh Thuan in the ARVN II Corps Tactical Zone as agreed by COMAFV and COMUSMACV.
- 5 R.W. Cable, *An Independent Command: Command and Control of the 1st Australian Task Force in Vietnam*, Canberra Papers on Strategy and Defence No. 134, Strategic and Defence Studies Centre, The Australian National University, Canberra, 2000, pp. 12–13.

- 6 Cable, *An Independent Command*, pp. 9–10.
- 7 While several Australian writers have used these ‘phases’, the earliest known use of them I have located was in a 1980 article by Ian McNeill, although he broke 1 ATF’s operations into four phases. Ian McNeill, ‘An Outline of the Australian Military Involvement in Vietnam July 1962–December 1972’, *Defence Force Journal*, No. 24, September/October 1980, pp. 42–53.
- 8 Australian Army, *Training Information Bulletin 13/70: Intelligence at Task Force Level in Counter Insurgency*, Army Headquarters Battle Analysis Team, Canberra, 1970, pp. 2-2 to 2-3. The HQ 1 ATF intelligence staff comprised the GSO2 (Int), a major; the GSO3 (Int), a captain; an Intelligence Officer, a captain; a Military Intelligence Liaison Officer, also a captain; in addition to five enlisted intelligence operators (a Staff Sergeant, a Sergeant, two Corporals, and a Private).
- 9 Australian Army, *Intelligence at Task Force Level*, pp. 3-2 to 3-3.
- 10 The 1 ATF area of responsibility (essentially Phuoc Tuy province) was originally included within COSVN’s Military Region 1, but in 1968 a reorganisation of the commands around Saigon resulted in the area coming under the command of Military Region 7.
- 11 Frank Frost, *Australia’s War In Vietnam*, Allen & Unwin, Sydney, 1987, pp. 43–52; Major Adrian Clunies-Ross (ed), *The Grey Eight in Vietnam*, 8 RAR, Brisbane, 1971, pp. 122–28.
- 12 Frost, *Australia’s War In Vietnam*, pp. 43–52; Clunies-Ross, *The Grey Eight in Vietnam*, pp. 122–28.
- 13 Frost, *Australia’s War In Vietnam*, pp. 43–52; Clunies-Ross, *The Grey Eight in Vietnam*, pp. 122–28.
- 14 Compiled from M. Anderson, M. Arnsten, and H. Averch, *Insurgent Organization and Operations: A Case Study of the Viet Cong in the Delta, 1964-1966*, Rand Corporation, Santa Monica, 1967, pp. 7 and 25.
- 15 Mark Moyar, *Phoenix and the Birds of Prey: The CIA’s secret campaign to destroy the Viet Cong*, p. 11. For a good example of the VCI at village level in Phuoc Tuy province, see McNeill, ‘To Long Tan’, p. 273.

Chapter 2

- 16 Australian Army, *Training Information Bulletin 13/70*, pp. 4–5, 21–29.
- 17 Australian Army, *Training Information Bulletin #8—The Division and its Support*, Army Headquarters, Canberra, ACT, July 1965, p. 49.

- 18 Australian Army, *Training Information Bulletin 13/70*, pp. 4–5, 21–29.
- 19 Australian Army, *The Division in Battle, Pamphlet No. 1—Organization and Tactics*, Army Headquarters, Canberra, 1965, p. 48.
- 20 Compiled from Frost, *Australia's War in Vietnam*, pp. 43–52.
- 21 These are: Australian Army, *The Division in Battle, Pamphlet No. 9—Intelligence*, Army Headquarters, Canberra, 1965; Australian Army, *The Division in Battle, Pamphlet No. 11—Counter Revolutionary Warfare*, Army Headquarters, Canberra, 1965; *Australian Army, Staff Duties (Australia)*, Army Headquarters, Canberra, 1966.
- 22 Compiled from: Australian Army, *The Division in Battle, Pamphlet No. 9—Intelligence*, pp. 20–21, 31–41, 59; Australian Army, *The Division in Battle, Pamphlet No. 11—Counter Revolutionary Warfare*, pp. 48–56; Australian Army, *Staff Duties*, pp. 327–29.
- 23 Australian Army, *Divisional Intelligence Unit—Tropical Warfare Establishment II/22/3 (TW)*, 30 June 1970, p. 3, (held at AWM 98 R310/2/41).
- 24 Det 1 Div Int Unit (SVN), *Aide Memoire—Air Photo Reading Courses*, Nui Dat, South Vietnam, July 1969, pp. 59–62, (copy held at the Museum of Australian Military Intelligence, Canungra).
- 25 Det 1 Div Int Unit (SVN), *Standing Operational Procedures—Air Intelligence Section*, Nui Dat, South Vietnam, July 1969, p. P-1, (copy held at the Museum of Australian Military Intelligence, Canungra).
- 26 Det 1 Div Int Unit (SVN), *Standing Operational Procedures—Air Intelligence Section*, Nui Dat, South Vietnam, July 1969, p. P-1, (copy held at the Museum of Australian Military Intelligence, Canungra).
- 27 R. Partis, *The Gospel According to Ron Partis*, Article for 1 Div Int Coy, Brisbane, 1991, p. 1.
- 28 Det 1 Div Int Unit (SVN), *Aide Memoire—Air Photo Reading Courses*, pp. 45–46.
- 29 Partis, *The Gospel According to Ron Partis*, p. 1.
- 30 Det 1 Div Int Unit (SVN), *Aide Memoire—Air Photo Reading Courses*, pp. 45–46.
- 31 Det 1 Div Int Unit (SVN), *Aide Memoire—Air Photo Reading Courses*, pp. 68–70.
- 32 Det 1 Div Int Unit (SVN), *Aide Memoire—Air Photo Reading Courses*, pp. 68–69.

- 33 Det 1 Div Int Unit (SVN), *Aide Memoire—Air Photo Reading Courses*, p. 70.
- 34 Det 1 Div Int Unit (SVN), *Standing Operational Procedures—Air Intelligence Section*, p. 8.
- 35 Det 1 Div Int Unit (SVN), Minute: *Employment and Organisation Det 1 Div Int Unit*, dated 19 October 1968, (held on AWM103 R310/1/11), p. 1.
- 36 Det 1 Div Int Unit (SVN), *Aide Memoire—Air Photo Reading Courses*, pp. 63–65.
- 37 Det 1 Div Int Unit (SVN), *Aide Memoire—Air Photo Reading Courses*, p. 64.
- 38 Lex McAulay, *People Sniffer*, email, 27 March 2002; Partis, Gospel, pp. 1–2.
- 39 McAulay, *People Sniffer*, 27 March 2002; Partis, *The Gospel According to Ron Partis*, pp. 1–2.
- 40 Australian Army, *Training Information Bulletin 13/70*, pp G-1; Interview with Lieutenant Colonel N.F. Graham, Retd (GSO 2 Int, HQ 1 ATF, November 1969 to October 1970), NSW North Coast, 20 August 2002.
- 41 Det 1 Div Int Unit (SVN), *Standing Operational Procedures—Air Intelligence Section*, p. 1.
- 42 Interview, N.F. Graham, 20 August 2002.
- 43 Det 1 Div Int Unit, *RF and PF Posts in Phuoc Tuy Province*, Nui Dat, South Vietnam, 1970, (copy held at the Museum of Australian Military Intelligence, Canungra).
- 44 Australian Army, *Divisional Intelligence Unit—Tropical Warfare Establishment II/22/3 (TW)*, p. 3; Det 1 Div Int Unit (SVN), Minute: *Employment and Organisation Det 1 Div Int Unit*, pp. 2–3.
- 45 Det 1 Div Int Unit (SVN), Minute R569/2/1: *Background Brief on Unit Acorn Operations*, dated 10 February 1969, p. 1, (copy held at the Museum of Australian Military Intelligence, Canungra).
- 46 Interview with Major G. Boscoe, Retd (Officer Commanding Det 1 Div Int Unit (SVN), October 1967 to August 1968), Sydney, 20 July 2002; Interview with Major A. Cunningham, Retd (Officer Commanding Det 1 Div Int Unit (SVN), Aug 1970 to Jul 1971) and Major Huynh Ba Phung (Officer Commanding 10 MID, ARVN, June 1968 to June 1971), Brisbane, 19 August 2002.
- 47 Australian Army, *Field Security Handbook*, Army Headquarters, Canberra, 1956, pp. 32–34.

- 48 Interview, G. Boscoe, 20 July 2002; Interview, A. Cunningham and H.B. Phung, 19 August 2002.
- 49 Partis, *The Gospel According to Ron Partis*, pp. 4–5.
- 50 Interview, A. Cunningham and H.B. Phung, 19 August 2002.
- 51 Interview, G. Boscoe, 20 July 2002.
- 52 *Acorn* is the radio title for intelligence officers and units in the Australian Army.
- 53 Interview, G. Boscoe, 20 July 2002.
- 54 Interview with Lieutenant Colonel J. L'Epagniol, Retd (Officer Commanding Det 1 Div Int Unit (SVN), August 1968 to August 1969), Canberra, 9 November 2001.
- 55 Det 1 Div Int Unit (SVN), Minute: *After Action Report—Acorn 17*, Nui Dat, South Vietnam, dated 25 September 1968, (copy held at the Museum of Australian Military Intelligence, Canungra).
- 56 Interview, J. L'Epagniol, 9 November 2001.
- 57 Interview, J. L'Epagniol, 9 November 2001; Interview, A. Cunningham and H.B. Phung, 19 August 2002.
- 58 R. Hede, *1st Australian Task Force Phung Hoang Operations*, BENRPT-004, Senior Province Officer, Baria, Phuoc Tuy, dated 5 October 1968, (copy held at the Museum of Australian Military Intelligence, Canungra).
- 59 Interview, A. Cunningham and H.B. Phung, 19 August 2002.
- 60 Australian Army, *Divisional Intelligence Unit—Tropical Warfare Establishment II/22/3 (TW)*, p. 3; Det 1 Div Int Unit (SVN), Minute: *Employment and Organisation Det 1 Div Int Unit*, pp. 2–3.
- 61 Australian Army, *Training Information Bulletin 13/70*, pp. 4–5, 21–29.
- 62 Categories taken from USARV Form 364 'Detainee Report Form', completed copies held on AWM 103 R670/1/15.
- 63 Australian Army, *Training Information Bulletin 13/70*, p B3-1.
- 64 J.F. Stewart, *The Story of the Kit Carson Scouts*, Chieu Hoi Directorate, CORDS, Saigon, 1969; Australian Army, *Training Information Bulletin 13/70*, pp E-1 to E-2.
- 65 HQ 1 ATF, *1st Australian Task Force Vietnam: Standing Operating Procedures for Operations in Vietnam*, Nui Dat, South Vietnam, January 1971; Interview, J. L'Epagniol, 9 November 2001.

- 66 Ashley Ekins, "Not One Scintilla of Evidence?" The Media, the Military and the Government in the Vietnam Water Torture Case', *Australian Journal of Politics and History*, vol. 42, no. 3, 1996, pp. 345–64.
- 67 Interview with Captain L. Johnstone, Retd (Linguist, Det 1 Div Int Unit (SVN) and 1 PSYOPS Unit, March 1970 to March 1971), Caloundra, 15 August 2002.
- 68 Interview, J. L'Epagniol, 9 November 2001; Interview, A. Cunningham and H.B. Phung, 19 August 2002.
- 69 Interview, A. Cunningham and H.B. Phung, 19 August 2002.
- 70 Interview, A. Cunningham and H.B. Phung, 19 August 2002.
- 71 Anderson, Arnsten, and Averch, *Insurgent Organization and Operations: A Case Study of the Viet Cong in the Delta, 1964-1966*, pp. 151–54.
- 72 Interview, L. Johnstone, 15 August 2002.
- 73 Australian Army, *Training Information Bulletin 13/70*, p. B-9.
- 74 Australian Army, *Training Information Bulletin 13/70*, p. B2-1.
- 75 Det 1 Div Int Unit (SVN), *Captured Weapons Register*, Nui Dat, South Vietnam, 1970 (held by the Museum of Australian Military Intelligence, Canungra); Interview, G. Boscoe, 20 July 2002.
- 76 Australian Army, *Training Information Bulletin 13/70*, p. 6-4.
- 77 Ernie Chamberlain, *Some Operational Reminiscences of Vietnam and Cambodia*, RAAF School of Languages, 1995, p. 1.
- 78 Chamberlain, *Some Operational Reminiscences of Vietnam and Cambodia*, p. 1.
- 79 HQUSMACV, *Minute ARVN Interpreter Program*, dated 14 June 1967, (held on AWM 103 R459/1/1 Part 1).
- 80 HQ 1 ATF (SVN), Letter: *Civilian/RF Interpreters Attached to 1 ATF*, dated 27 January 1967, (held on AWM103 R459/1/1 Part 1).
- 81 HQ 1 ATF (SVN), Letter: *Civilian/RF Interpreters Attached to 1 ATF*.
- 82 HQ 1 ATF (SVN), Minute R459/1/1: *Payment of Linguists at 1 Australian Task Force Combined Language Course*, dated 16 August 1966 (held on AWM103 R459/1/1 Part 1).
- 83 HQ 1 ATF (SVN), Letter: *Civilian/RF Interpreters Attached to 1 ATF*.
- 84 HQ 1 ATF (SVN), Minute R459/1/1: *Provision of ARVN Interpreters*, dated 19 April 1968, (held on AWM103 R459/1/1 Part 1).

- 85 HQ 1 ATF (SVN), Message: *Interpreters for 1 ATF*, dated 23 September 1966, (held on AWM103 R459/1/1 Part 1).
- 86 HQ 1 ATF, Message INT 2296: *Management of Interpreters*, dated 8 November 1969 (held on AWM103 R459/1/1 Part 2).
- 87 Joseph McChristian, *The Role of Military Intelligence 1965-67*, Vietnam Studies, Department of the Army, Washington D.C., 1974, pp. 24–26.
- 88 RVNAF J2 Joint General Staff, Staff Memorandum No.02255/TTH/2/2: *Intelligence Support Team Assigned by Military Intelligence Center to Australian Task Force*, dated 16 September 1966 (held on AWM103 R459/1/5).
- 89 HQ 1 ATF, Minute A-1-11: *10 ARVN Military Intelligence Detachment (10 MID)*, dated 22 April 1969 (held on AWM103 R459/1/5).
- 90 Interview, L. Johnstone, 15 August 2002; Interview, A. Cunningham and H.B. Phung, 19 August 2002.
- 91 Interview, A. Cunningham and H.B. Phung, 19 August 2002.
- 92 Interview, A. Cunningham and H.B. Phung, 19 August 2002; Interview, G. Boscoe, 20 July 2002.
- 93 Australian Army, *Training Information Bulletin 13/70*, pp. B-3, G-2 to G-4.
- 94 Australian Army, *Training Information Bulletin 13/70*, pp. B-3 to B-4, G-1 to G-2.
- 95 For example: Det 1 Div Int Unit (SVN), *CI Liaison—Dat Do*, dated 12 January 1968; Det 1 Div Int Unit (SVN), *Police Report—Long Le/PT, I55/SK/I/Y* of 15 July 1967, Det 1 Div Int Unit (SVN), Minute: *After Action Report—Acorn 17*, dated 25 September 1968, (copies held at the Museum of Australian Military Intelligence, Canungra).
- 96 Australian Army, *Training Information Bulletin 13/70*, pp. B-9 to B-10.
- 97 The ‘short’ forms were MACV Form 343, a small tag which accompanied each detainee and the ‘long’ forms were USARV Form 364, a foolscap-sized form retained for unit records.
- 98 Australian Army, *Training Information Bulletin 13/70*, pp. B-9 to B-10.
- 99 For example, see *Annex D to 1 ATF Intsum 104/70*, dated 14 April 1970, reproduced in Australian Army, *Training Information Bulletin 13/70*, p. H-6.
- 100 For example, see *Annexes A and B of 1 ATF Intsum 104/70*, dated 14 April 1970, reproduced in Australian Army, *Training Information Bulletin 13/70*, pp. H-4 to H-6.

Chapter 3

- 101 The term 'signals intelligence' as used in this paper is not completely correct. By using the strict doctrinal definition, the activities of Australian specialist intelligence units on operations in Southeast Asia involved 'communications intelligence', not 'signals intelligence'. However, the two terms are used interchangeably by veterans of the period and 'signals intelligence' is used here as a term of convenience.
- 102 Australian Army, *Training Information Bulletin No. 32—Electronic Warfare*, Army Headquarters, Canberra, 1979, p. 1A-1.
- 103 John Blaxland, *Signals Swift and Sure: A History of the Royal Australian Corps of Signals 1947 to 1972*, Royal Australian Corps of Signals Committee, Simpson Barracks, Macleod, Vic., 1998, pp. 79, 94–95.
- 104 Blaxland, *Signals Swift and Sure*, p. 246.
- 105 Murray Davies (ed.), *A History of 547 Signal Troop in South Vietnam*, 7th Signal Regiment, Borneo Barracks, Cabarlah, 1987, pp. 3 and 42.
- 106 While *Training Information Bulletin No. 32—Electronic Warfare* reflected the post-1976 Army focus on conventional operations in Australia, the basics of tactical electronic warfare doctrine remained unchanged since the Vietnam War, and some reference can be made to it in this context.
- 107 Electronic intelligence covers the exploitation of radar signals and is not applicable to the units or campaigns discussed in this paper.
- 108 Australian Army, *Training Information Bulletin No. 32—Electronic Warfare*, p. xi.
- 109 Australian Army, *Training Information Bulletin No. 32—Electronic Warfare*, p. 1A-1.
- 110 Australian Army, *Training Information Bulletin No. 32—Electronic Warfare*, pp. 2-1 to 2-6.
- 111 Compiled from Australian Army, *Signal Training (All Arms) Pamphlet No. 6—Communications Security*, Army Headquarters, Canberra, 1971, pp. 1-1, 1-2, 4-1, 4-5, 4-6; Australian Army, *Training Information Bulletin No. 32—Electronic Warfare*, pp. xi-xvii, 1A-1, 2-1 to 2-6.
- 112 Davies, *A History of 547 Signal Troop in South Vietnam*, p iii.
- 113 Compiled from Clunies-Ross, *The Grey Eight in Vietnam*, 8 RAR, Brisbane, 1971, pp. 122–28.

- 114 Most large VC units or organisations used a combination of all three methods. The courier (or 'commo-liaison') system was a comprehensive network of personnel and way-stations used for carrying correspondence and documentation between all levels of command, as well as message 'runners' used tactically in battle. The line or landline (ie field telephone) system operated over short distances using cable laid between units. John Bergen, *Military Communications: A Test for Technology*, United States Army in Vietnam Series, Center for Military History, Washington D.C., 1985, p. 374.
- 115 Bergen, *Military Communications: A Test for Technology*, p. 375.
- 116 The high-frequency band refers to radio frequencies between 3 and 30 Megahertz. J. Browne and M. Thurbon, *Electronic Warfare, Brassey's Air Power: Aircraft, Weapons Systems and Technology Series*, Volume 4, Brassey's, London, 1998, pp. 54 and 63.
- 117 Bergen, *Military Communications: A Test for Technology*, p. 373.
- 118 Bergen, *Military Communications: A Test for Technology*, pp. 380–83.
- 119 Det 1 Div Int Unit (SVN), *Combined Preliminary Interrogation Report OBM 557*, Nui Dat, South Vietnam, 16 March 1969, p 7; HQ 1 ATF, 5th VC Division, Nui Dat, South Vietnam, 16 November 1967, p. 7, (located at the Museum of Australian Military Intelligence, Canungra, copies in author's possession).
- 120 HQ 1 ATF, *Annex A to 1 ATF Intsum 146-69*, Nui Dat, South Vietnam, 26 May 1969, p. 7; HQ 1st Australian Task Force, *Background Paper to the Viet Cong Military Region 7*, Nui Dat, South Vietnam, August 1970, pp. 4-9, 4-24, (located at the Museum of Australian Military Intelligence, Canungra, copies in author's possession).
- 121 Intelligence gathering elements were deployed in and around Phuoc Tuy province by organisations from COSVN downwards, their targets including the strategic port of Vung Tau and the major roads radiating out from Saigon. An example is the COSVN military intelligence team deployed in October 1966 to observe National Route 15 from Vung Tau to Saigon, whose local guide and radio set was captured by Australian forces. The resulting interrogation became famous as the so-called 'water torture' incident. Ashley Ekins, "Not One Scintilla of Evidence?": The Media, the Military and the Government in the Vietnam Water Torture Case', *Australian Journal of Politics and History*, vol. 42, no. 3, 1996, pp. 350 and 360.

- 122 John Blaxland, *Signals Swift and Sure*, p. 246. For the first month of operations at Nui Dat, the receiver equipment was housed in canvas tents: Davies, *A History of 547 Signal Troop in South Vietnam*, p. 4.
- 123 Davies, *A History of 547 Signal Troop in South Vietnam*, pp. 5–6.
- 124 Davies, *A History of 547 Signal Troop in South Vietnam*, p. 3.
- 125 Blaxland, *Signals Swift and Sure*, p. 247.
- 126 Blaxland, *Signals Swift and Sure*, p. 249.
- 127 547 Signal Troop, Request to Vary Establishment Sheet 5/67, Nui Dat, South Vietnam, (held on AWM 103 R985/1/19), dated 20 September 1967; Interview with Roy Dean (Operations Section, 547 Signal Troop, April 1969 to March 1970), Brisbane, 15 August 2002.
- 128 This claim is made in Blaxland, *Signals Swift and Sure*, p. 246; but interviewees have been adamant that the only computer used in the troop was located with the SSL installation, remote from the troop itself.
- 129 Interview with Adrian Bishop (Processing Section, 547 Signal Troop, May 1969 to May 1970), Canberra, 16 September 2002; Interview, R. Dean, Brisbane, 15 August 2002.
- 130 Interview, R. Dean, Brisbane, 15 August 2002.
- 131 Interview with Major Jack Fenton, Retd, (Officer Commanding 547 Signal Troop, June 1970 to June 1971), Brisbane, 16 August 2002; Interview with Mike Conaghan, (Operations and ARDF Section, 547 Signal Troop, May 1967 to April 1968), Brisbane, 18 August 2002.
- 132 Blaxland, *Signals Swift and Sure*, p. 246.
- 133 Interview, M. Conaghan, 18 August 2002; Interview, R. Dean, Brisbane, 15 August 2002.
- 134 Davies, *A History of 547 Signal Troop in South Vietnam*, pp. 14, 23, 30, 33.
- 135 Davies, *A History of 547 Signal Troop in South Vietnam*, p. 19.
- 136 For this reason, sky wave transmissions were the predominant form of long-range radio communications before the widespread use of satellites.
- 137 For a more in-depth discussion of the factors involved in high-frequency radio communications, see: Browne and Thurbon, *Electronic Warfare, Brassey's Air Power: Aircraft, Weapons Systems and Technology Series*, pp. 60–64.

- 138 Albert Price, *The History of US Electronic Warfare—Volume II*, The Association of Old Crows, Washington D.C., 1989, p. 269.
- 139 In fact, the first United States serviceman to die in combat in Vietnam, Specialist James T. Davis of the 3rd Radio Research Unit, was killed west of Saigon in December 1961 while searching for an enemy radio with an AN/PRD-1. James Bamford, *Body of Secrets*, Doubleday, New York, 2001, pp. 290–91; Price, *US Electronic Warfare*, p. 270.
- 140 Bergen, *Military Communications: A Test for Technology*, p. 388.
- 141 Interview of Brigadier Trevor Richards, Retd, (Officer Commanding 547 Signal Troop, May 1966 to April 1967), by Bruce Horsfield, Canberra, June 1993, (interview footage held at ADFA Library).
- 142 McNeill, 'To Long Tan', pp. 309–10; Interview, Richards, June 1993.
- 143 Blaxland, *Signals Swift and Sure*, p. 247.
- 144 Davies, *A History of 547 Signal Troop in South Vietnam*, p. 9.
- 145 Don Dennis, 'Of Shush Missions, Voice Sorties and Pucker Factors', *Australian Aviation*, May 1991, p. 39.
- 146 Blaxland, *Signals Swift and Sure*, p. 247.
- 147 That is, the size of the area in which the transmitter was likely to be located, based on the bearings taken. The more accurate the bearings, the smaller the area.
- 148 Interview, M. Conaghan, 18 August 2002.
- 149 Blaxland, *Signals Swift and Sure*, p. 247.
- 150 Dennis, 'Of Shush Missions, Voice Sorties and Pucker Factors', pp. 39–40.
- 151 Davies, *A History of 547 Signal Troop in South Vietnam*, p. 25. An example of this equipment now resides in the Royal Australian Corps of Signals Museum at Simpson Barracks, Macleod, Melbourne.
- 152 Blaxland, *Signals Swift and Sure*, p. 247; Davies, *A History of 547 Signal Troop in South Vietnam*, pp. 34–5.
- 153 Blaxland, *Signals Swift and Sure*, p. 250.
- 154 Blaxland, *Signals Swift and Sure*, p. 250.
- 155 Davies, *A History of 547 Signal Troop in South Vietnam*, pp. 18–19.
- 156 Davies, *A History of 547 Signal Troop in South Vietnam*, p. 18.

- 157 This comment is attributed to Major Steve Hart (Officer Commanding 547 Signal Troop, September 1968 to September 1969), from Interview, J. Fenton, 16 August 2002.
- 158 Davies, *A History of 547 Signal Troop in South Vietnam*, p. 19.
- 159 L. Wilson, 'Australian Forces Vietnam 1962-1973', Australian Intelligence Corps Museum Database, page created 14 June 2001; ADF School of Languages, Graduates from Selected LANGS Long Courses (Vietnamese), RAAF Point Cook, 24 January 1990, pp. 1-3.
- 160 L. Wilson, 'Australian Forces Vietnam 1962-1973', p. 1; Department of Veterans Affairs, Nominal Roll, multiple entries.
- 161 Davies, *A History of 547 Signal Troop in South Vietnam*, p. 3.
- 162 Davies, *A History of 547 Signal Troop in South Vietnam*, p. 10.
- 163 Interview with Laurie Duell, (Processing Section, 547 Signal Troop, April 1968 to February 1969), Brisbane, 19 August 2002.
- 164 Interview, M. Conaghan, 18 August 2002.
- 165 Interview with Tom Williams, (Processing Section, 547 Signal Troop, April 1968 to March 1969), Brisbane, 17 August 2002.
- 166 McNeill, 'To Long Tan', p. 308.
- 167 Interview, M. Conaghan, 18 August 2002.
- 168 Blaxland, *Signals Swift and Sure*, p. 247. One such capture was by 6 RAR in the May Tao mountains, on Operation Marsden in December 1969; Interview, A. Bishop, 16 September 2002; Major L.D. Johnson (ed), *The History of 6 RAR-NZ (ANZAC) Battalion*, Volume Two, 1967 to 1970, Times Printers, Singapore, 1972, pp. 95-109.
- 169 Interview with Lieutenant Colonel Ian Bowen, Retd, (Intelligence Officer, 547 Signal Troop, January 1971 to December 1971), Canberra, 11 September 2002; Interview with Lieutenant Colonel Steve Zagon, Retd, (Intelligence Officer, 547 Signal Troop, March 1968 to March 1969), Melbourne, 22 September 2002.
- 170 Interview, I. Bowen, 11 September 2002; Interview, S. Zagon, 22 September 2002.
- 171 McNeill, 'To Long Tan', p. 307.
- 172 Blaxland, *Signals Swift and Sure*, p. 267.
- 173 McNeill, 'To Long Tan', p. 360.

- 174 Interview, I. Bowen, 11 September 2002.
- 175 Interview, I. Bowen, 11 September 2002.
- 176 Davies, *A History of 547 Signal Troop in South Vietnam*, p. 19.
- 177 Blaxland, *Signals Swift and Sure*, p. 249; Davies, *A History of 547 Signal Troop in South Vietnam*, pp. 14–15, 30, 33–34.
- 178 Interview, I. Bowen, 11 September 2002.
- 179 Captain C.J. Clarke (ed), *Yours Faithfully*, Printcraft Press, Sydney, 1972, pp. 90, 92, 144.

Chapter 4

- 180 Interview with Jack Opray (CSM, Det 1 Div Int Unit (SVN), May 1967 to May 1968), Queanbeyan, July 2002.
- 181 Australian Army, *Training Information Bulletin 13/70*, p. 5-2.
- 182 Australian Army, *The Division in Battle, Pamphlet No. 9—Intelligence*, pp. 2, 7–9.
- 183 Australian Army, *Training Information Bulletin 13/70*, pp. 5-5, C-1.
- 184 See, for example, 1 ATF Intsum 104/70 of 14 April 1970, in Australian Army, *Training Information Bulletin 13/70*, pp. H-1 to H-6.
- 185 Lieutenant General Julian Ewell and Major General Ira Hunt, *Sharpening the Combat Edge: The Use of Analysis to Reinforce Military Judgement*, Vietnam Studies Series, Department of the Army, Washington D.C., 1974, pp. 96–105.
- 186 'Confirmations' were interpreted as contact with the enemy, but also included documents, caches and movement detected by unattended ground sensors. Ewell and Hunt, *Sharpening the Combat Edge: The Use of Analysis to Reinforce Military Judgement*, p. 102.
- 187 Ewell and Hunt, *Sharpening the Combat Edge*, pp. 102–104.
- 188 By this measure, the 9th Division study concluded that the Airborne Personnel Detector (or 'People Sniffer") was their most reliable (read: effective) source, a far different assessment from those made by Australian intelligence officers. See Ewell and Hunt, *Sharpening the Combat Edge*, p. 103.
- 189 Horner, David, *SAS: Phantoms of the Jungle*, 2nd ed., Allen & Unwin, Sydney, 1992, pp. 219–20.
- 190 The gaps are August 1966 to February 1967, September to December 1969, and October to December 1971.

- 191 Interview with Brigadier J.O. Furner, Retd (GSO 2 (Int) HQ 1 ATF, March 1967 to January 1968), NSW Central Coast, 7 September 2002.
- 192 Interview with Lieutenant Colonel Bryan Pannell, Retd (GSO 3 (Int) HQ 1 ATF, March 1969 to March 1970), Canberra, 15 September 2002.
- 193 Ewell and Hunt, *Sharpening the Combat Edge*, p. 97.
- 194 This section is based on interviews with 547 Signal Troop personnel (Jack Fenton, Ian Bowen, Brian Doyle, Steve Hart, Steve Zagon) and officers from the HQ 1 ATF intelligence section (Bob Keep, J.O. Furner, Geoff Cameron, Hugh Conant, Bryan Pannell, Noel Graham, Mike Peters, Colin Dobie).
- 195 This section is based on interviews with officers from the HQ 1 ATF intelligence section (Bob Keep, J.O. Furner, Geoff Cameron, Hugh Conant, Bryan Pannell, Noel Graham, Mike Peters, Colin Dobie).
- 196 This was particularly the case with junior commanders. Ewell and Hunt, *Sharpening the Combat Edge*, pp. 104–105.
- 197 The two task force commanders who had experience of SIGINT were Brigadier C.M.I. Pearson and Brigadier S.C. Graham, both of whom had served as Director of Military Intelligence.
- 198 Interview with Lieutenant Colonel Hugh Conant, Retd (GSO 3 (Int) HQ 1 ATF, March 1968 to March 1969), Canberra, 29 September 2002.
- 199 McNeill, 'To Long Tan', pp. 395–97; Horner, *Phantoms of the Jungle*, pp. 188–90.
- 200 Horner, *Phantoms of the Jungle*, pp. 257–59.
- 201 Interview, N.F. Graham, 20 August 2002.
- 202 Interview, Furner, 7 September 2002; David Horner (ed.), *Duty First: The Royal Australian Regiment in War and Peace*, Allen & Unwin, Sydney, 1990; p. 223.
- 203 Interview, Pannell, 15 September 2002; Horner, *Duty First*, pp. 253–54; HQ 1 ATF Intelligence Section, *Summary of Intelligence Aspects of 5 RAR Attack on HQ MR-T7*, Annex A to 1 ATF Intsum No. 146-69 of 26 May 1969, Nui Dat, South Vietnam, 26 May 1969, (copy held by the Museum of Australian Military Intelligence, Canungra).
- 204 This operation also had a pay-off for 547 Signal Troop: several enemy radios and codebooks were captured by 6 RAR. Interview with Lieutenant Colonel Brian Doyle, Retd, (Intelligence Officer, 547 Signal Troop, January 1971 to December 1971), Maleny, 2 February 2002; Interview, A. Bishop, 16 September 2002; Major L.D. Johnson, (ed.), *The*

History of 6 RAR-NZ (ANZAC) Battalion, Vol. Two, 1967 to 1970, Times Printers, Singapore, 1972, pp 95–109.

- 205 Interview with Lieutenant Colonel Mike Peters, Retd (GSO 2 (Int) HQ 1 ATF, October 1970 to October 1971), Sydney, 8 September 2002; Horner, *Duty First*, pp. 273–74.
- 206 Interview with Lieutenant Colonel Geoff Cameron, Retd (GSO 2 (Int) HQ 1 ATF, January 1968 to January 1969), NSW North Coast, 14 September 2002; Interview, T. Williams, 17 August 2002.
- 207 Interview, Pannell, 15 September 2002; Horner, *Duty First*, pp 255–57.
- 208 Interview, N.F. Graham, 20 August 2002; Clunies-Ross, *The Grey Eight in Vietnam*, 8 RAR, Brisbane, 1971, pp. 48–61.
- 209 Interview, N.F. Graham, 20 August 2002; Interview, J. Fenton, 16 August 2002; Partis, *Gospel*, p. 6; Clunies-Ross, *The Grey Eight in Vietnam*, 8 RAR, Brisbane, 1971, pp. 48–61.
- 210 For example, those conducted by 7th Battalion, Royal Australian Regiment in early 1968. O'Brien, Michael, *Conscripts and Regulars: With the Seventh Battalion in Vietnam*, Allen & Unwin, Sydney, 1995; pp. 128–33.
- 211 Bryan Pannell, *Intelligence in South Vietnam*, Lecture to Australian Army Staff College, Fort Queenscliffe, 1971, pp. 22–23 (copy held by author).
- 212 Mark Bailey, *Aspects of the Australian Army Intelligence System During Confrontation and Vietnam*, ADSC Working Paper 22, Australian Defence Studies Centre, ADFA, Canberra, April 1994, p. 20.
- 213 McNeill, 'To Long Tan', p. 363.

ANNEX A

PERSONNEL AND DOCTRINE ISSUES

Personnel

547 Signal Troop

In terms of personnel, 547 Signal Troop was limited to only 15 operators on deployment in 1966, due to manning ceilings placed on 1 ATF. Of those selected initially, all had extensive experience in their specialist roles.¹ After the troop expanded to full strength in 1967, efforts were made to ensure that experienced personnel were sent to Vietnam. This meant that the most junior of the Operator Signals had to have served at least one tour at 121 Signal Squadron in Singapore (another sub-unit of 7th Signal Regiment) covering a wide variety of communications before being considered for posting to 547 Signal Troop.² However, towards the end of 1 ATF's involvement in Vietnam, this experience base was being eroded. By 1970, personnel were being selected for Vietnam without having been posted to Singapore and some just after completing their initial employment training as Operator Signals, dependent on their skill levels. One later Officer Commanding of the troop had even considered selecting female Operator Signals for Vietnam, but this was forbidden under Army policy.³

Detachment 1st Division Intelligence Unit

The initial personnel strength of the Det 1 Div Int Unit was decided by a very arbitrary method: the first officer commanding was told to provide a list of personnel in his unit who were under 55 years of age and fit to deploy.⁴ The 15 personnel listed became the posted strength of the detachment for the entire period of service in South Vietnam. Although larger in strength to a task force detachment in contemporary doctrine, the doctrine only considered divisional operations rather than task force operations independent from the divisional supporting units.⁵ One 1968 paper stated that 'this detachment supports a Task Force and therefore as a 'rule of thumb' approximation, one could be forgiven for assuming its strength should be about one third of the Divisional Intelligence Unit. The workload of the detachment, however, is almost as great as it would be if a Division were in this location...'⁶ The workload imposed by *Acorn* operations was a considerable burden on the detachment, one Officer Commanding stating that he could have used an additional ten personnel on these duties alone.⁷

While the second contingent in May 1967 was able to be selected for their experience, the replacement system became one of 'trickle' replacements of individuals or small groups.⁸ Although some Citizens Military Force (CMF) members volunteered for full-time duty in Vietnam, the expertise resident in the CMF intelligence units was not drawn upon.⁹ Over time, the experience base of the detachment became eroded. As of late 1968, junior ranked personnel (including national servicemen) were beginning to replace senior NCOs in the detachment, their relative inexperience and lower military status complicating liaison with local authorities. Some individuals arrived in Vietnam with little preparation for the tasks they were expected to fulfil.¹⁰ Several attempts were made to increase the personnel strength of the detachment, but to no avail.

Doctrine

The intelligence doctrine concerning specialist intelligence units had a significant influence on the organisation, tasks and performance of these units when they were deployed in South Vietnam. Doctrine expressed how the Army officially considered the employment of intelligence units. It was also the means through which the wider Army was informed of how these units were supposed to work on the battlefield. The officially approved doctrine which applied to specialist intelligence units was sparse by modern standards, but is instructive in understanding the context in which they were organised and employed. The primary doctrinal documents used were *The Division in Battle* pamphlets, published in 1965. This series was written to update the previous Pentropic Division doctrine to bring it in line with the Tropical Warfare Division structure adopted in 1965. It is notable that, of the 23 intelligence sources listed in *Pamphlet No 9—Intelligence* and *Pamphlet No. 11—Counter Revolutionary Warfare*, 13 were to be exploited, in whole or in part, by specialist intelligence units.¹¹

547 Signal Troop

Doctrine on SIGINT and electronic warfare was closely held during this period, with few if any references being made to it in general doctrine.¹² The first generally available Australian doctrinal publication that dealt with this subject in any depth was Training Information Bulletin No. 32, *Electronic Warfare*, produced in 1979. The sum total of the entry in the 1965 *Pamphlet No 1—Organization and Tactics*, was as follows:

Electronic Warfare Signal Squadron

102. Role. To provide electronic warfare support to the division.
103. Organisation. The squadron has 102 men and 15 x $\frac{3}{4}$ ton vehicles. It can support more than one division.
104. Tasks. The squadron undertakes active and passive electronic counter measures.¹³

Other doctrinal publications add few additional details to this basic information on the basic structure and role of the unit. For example, *Pamphlet No 7—Signals*, described the personnel strength, as ‘four officers and 100 other ranks’.¹⁴ The only other located contemporary references to the types of SIGINT units are from non-doctrinal sources, but indicate that some form of doctrine regarding their structure was in place, if not generally available to the rest of the Army. For example, a 1967 minute from 547 Signals Troop stated that an ‘A Type’ troop of twenty-four operators was the normal requirement to support a task force in the field.¹⁵ These references would be consistent with the above-mentioned electronic warfare signal squadron being divided into three or four subordinate troops to support the division and its three task forces.

The lack of published doctrine relating to SIGINT had both a good and bad impact on 547 Signal Troop. On the negative side, key commanders had minimal or no knowledge of sigint and some struggled to come to terms with it. The prime example of this is the lead up to the battle of Long Tan in August 1966. Another negative was that few officers at battalion level had a prior understanding of how sigint could support their operations. On the positive side, the intelligence produced was of such high quality that the troop was able to secure a significant increase in its personnel strength and capabilities unconstrained by any doctrinal prescriptions.

Detachment 1st Division Intelligence Unit

The divisional intelligence units had significant references in the *Division in Battle* series that not only described the organisation and basic tasks but also detailed the types of sources they were designed to exploit. Although its capabilities were generally known to the Army through published doctrine, in several ways the Det 1 Div Int Unit was constrained by the doctrine that applied to it. The first contingent was essentially split and absorbed into the HQ 1 ATF intelligence staff by the GSO 2 Int, reflecting the contemporary doctrine that the senior intelligence officer at the division headquarters directly

commanded the unit, not the senior officer in the detachment.¹⁶ The detachment did not deploy with an integral administration section, as it would normally be provided this service from divisional headquarters. This resulted in already scarce personnel being withdrawn from other duties to concentrate on unit administration.¹⁷ As discussed elsewhere, the personnel strength was limited by what was considered doctrinally correct for a task force operating as part of a division, not one on independent operations. The requirement for linguists also far outstripped the number allocated in doctrine.

Notes

- 1 Murray Davies (ed.), *A History of 547 Signal Troop in Vietnam*, 7th Signals Regiment, Cabarlah, 1987, pp. iii, 3.
- 2 Interview with Steve Hart (Officer Commanding 547 Signal Troop, September 1968 to September 1969), Canberra, 2 September 2002.
- 3 Interview with Jack Fenton (Officer Commanding 547 Signal Troop, June 1970 to June 1971), Brisbane, 16 August 2002. Female Operator Signals had served in 7th Signal Regiment since 1964 and from 1967 had been posted to Singapore, but contemporary Army policy forbade the employment of female soldiers (with the exception of nurses) in South Vietnam. Blaxland, John, *Signals Swift and Sure: A History of the Royal Australian Corps of Signals 1947 to 1972*, Royal Australian Corps of Signals Committee, Simpson Barracks, Macleod, Vic., 1998, pp. 101, 191.
- 4 Interview with Mike Heenan, (Officer Commanding Det 1 Div Int Unit (SVN), May 1966 to May 1967), Sydney, 7 September 2002.
- 5 Australian Army, *Training Information Bulletin No. 8—The Division and Its Support*, Army Headquarters, Canberra, ACT, July 1965, p. 49.
- 6 Det 1 Div Int Unit (SVN), Minute: *Employment and Organisation Det 1 Div Int Unit*, dated 19 October 1968, (held on AWM103 R310/1/11), p. 4.
- 7 Interview with Lieutenant Colonel J. L'Epagniol, Retd (Officer Commanding Det 1 Div Int Unit (SVN), August 1968 to August 1969), NSW South Coast, 28 September 2002.
- 8 Interview with Jack Opray (CSM, Det 1 Div Int Unit (SVN), May 1967 to May 1968), Melbourne, 21 September 2001; Directorate of Military Intelligence, *Replacements—Vietnam Aust Int Corps*, Canberra, 13 August 1969, (held by Australian Intelligence Corps Museum, Canungra).

- 9 Interview with Lieutenant Colonel J. L'Epagniol, Retd (Officer Commanding Det 1 Div Int Unit (SVN), August 1968 to August 1969), NSW South Coast, 28 September 2002.
- 10 Interview with Lieutenant Colonel J. L'Epagniol, Retd (Officer Commanding Det 1 Div Int Unit (SVN), August 1968 to August 1969), NSW South Coast, 28 September 2002; Det 1 Div Int Unit (SVN), Minute R569/2/1: *Background Brief on Unit Acorn Operations*, dated 10 February 1969, (copy held at Australian Intelligence Corps Museum, Canungra), p. 2.
- 11 Australian Army, *The Division in Battle, Pamphlet No 9—Intelligence*, Army Headquarters, Canberra, 1965, pp. 10–13; Australian Army, *The Division in Battle, Pamphlet No 11—Counter Revolutionary Warfare*, Army Headquarters, Canberra, 1965, pp. 49–51.
- 12 The term 'signals intelligence' as used in this paper is not completely correct. By using the strict doctrinal definition, the activities of Australian specialist intelligence units on operations in Southeast Asia involve communications intelligence, not signals intelligence. However, the two terms are used interchangeably by veterans of the period and 'signals intelligence' is used here as a term of convenience.
- 13 Australian Army, *Div in Battle—Organization and Tactics*, p. 43.
- 14 Australian Army, *The Division in Battle, Pamphlet No 7—Signals*, Army Headquarters, Canberra, 1965, p. 39. Of note, the 1970 edition of this pamphlet contained the same information.
- 15 HQ 1 ATF Minute R310-1-6 of 18 July 1967, held on file AWM 103 R310-1-23 *Establishments and Strengths—General—547 Signal Troop*. Of note, Army signals intelligence units in the Second World War were designated by letters to distinguish between units with different roles, eg, 'Type C' and 'Type D' sections—see Geoffrey Ballard, *On Ultra Active Service*, Spectrum Publications, Richmond, 1991, p. 233.
- 16 Interview with Mike Heenan, (Officer Commanding Det 1 Div Int Unit, May 1966 to May 1967), Sydney, 7 September 2002; HQ AFV, *Employment of Aust Int Corps—AFV, Saigon, South Vietnam, June 1966*, (copy held at Australian Intelligence Corps Museum, Canungra).
- 17 Detachment 1st Divisional Intelligence Unit, Minute: *Employment and Organisation Det 1 Div Int Unit*, dated 19 October 1968, (held on AWM103 R310/1/11), pp. 3-4.

ANNEX B

PREVIOUS OPERATIONAL EXPERIENCE

The organisation, tasks and performance of Australian specialist intelligence units in South Vietnam stemmed in a large part from the exposure of individuals and small units to counterinsurgency operations in Southeast Asia in the 1950s and early 1960s. Experience was also gained via secondments and training with the US and British Armies (not necessarily involving operations), and strategic intelligence collection activities.

Malayan Emergency (1948–60)

As with other corps of the Army, the Malayan Emergency was to provide the Intelligence Corps with a textbook example of how an effective campaign against communist guerrillas could work. The influence of the campaign is clearly evident in Australian doctrine from 1960 onwards, including intelligence doctrine.¹

In 1950 the British Chiefs of Staff had asked that Australia provide five or six intelligence officers, and the same number of intelligence clerks, as part of their initial consultations with the Menzies Government.² While this specific request could not be met, the small Australian Observer Unit established in February 1951 included a

significant proportion of intelligence personnel.³ By November 1952 its strength stood at five officers and 26 other ranks, which included one intelligence officer attached to the main British military headquarters and the 16 personnel of No. 1 Detachment, 101 Wireless Regiment, which collected SIGINT.⁴

Divisional Intelligence Units

Although the Australian Army did not possess divisional intelligence units in 1950, individual officers were posted on general intelligence duties to Malaya.⁵ These officers at the rank of captain or major, posted to General Headquarters Far Eastern Land Forces, were in an excellent position to study the comprehensive intelligence system created by Generals Briggs and Templar, successive Directors of Operations.⁶ Several of these officers later commanded the divisional intelligence units where they are likely to have brought their Malayan experiences to bear. With the commitment of significant Australian ground forces in 1955, intelligence officers were also posted to the Australian component of the 28th Commonwealth Brigade Group.⁷ Specialist intelligence units formed by the British during the Malayan campaign included several that were represented on the Australian Army order of battle at the time and were later absorbed into the divisional intelligence units on the formation of the Pentropic Division in 1960.

Signals Intelligence

Although it represented the bulk of the early Australian commitment to the Malayan Emergency, little has been written of the activities of the No. 1 Detachment, 101 Wireless Regiment, which performed SIGINT duties.⁸ Described as a 'Type F' radio troop, consisting of one officer and 15 other ranks, it was initially based in Singapore.⁹ It was split in September 1953 and an element moved to Kuala Lumpur to support operations in the northern states of Malaya.¹⁰ With the commitment of significant Australian ground forces in 1955, it continued to serve with the Australian component of the Far Eastern Land Forces until 1959.¹¹ One member stated that it

‘roamed around the jungle doing tactical intercept of Communist Terrorist communications (of which there were not a great deal)’.¹² Of the 94 personnel listed as serving with the Detachment, 21 later served in South Vietnam.¹³

Confrontation (1963–66)

The Indonesian ‘Confrontation’ of Malaysia reinforced the intelligence lessons learned from the Malayan Emergency and drew on the same types of intelligence support for Commonwealth forces.

Divisional Intelligence Units

Although no elements of the divisional intelligence units were deployed during the Confrontation, intelligence officers and NCOs posted on general intelligence duties with British and Australian units in Malaysia worked with, or were aware of, the various British specialist intelligence units. The Australian units which opposed the early (1964–65) Indonesian infiltrations into West Malaysia (i.e. Peninsular Malaysia) included intelligence personnel, and a small number also served with the Australian battalions deployed to East Malaysia (i.e. Borneo) in 1965–66.¹⁴ A number of these personnel later deployed to South Vietnam.

Signal Intelligence Units

As with the Malayan Emergency, little has been written on the activities of Australian SIGINT activity during the Confrontation. In August 1964, 693 Signal Troop was deployed from Singapore to Labuan Island to support operations in Borneo. Commanded by a lieutenant, the troop conducted radio direction finding and the interception of enemy radio traffic in conjunction with a similar British unit.¹⁵ While the effectiveness of SIGINT in Borneo has been debated, most concede that it made a useful, if not significant, contribution to the ‘intelligence picture’.¹⁶ The troop redeployed to Singapore at the conclusion of the Confrontation and was absorbed back into its parent unit.¹⁷ Of the 67 personnel listed as serving with the troop, 44 later served in South Vietnam.¹⁸

Other Service—Southeast Asia and Elsewhere

After the end of the Malayan Emergency in 1960, Australian intelligence personnel continued to serve in Malaya/Malaysia and Singapore with British units. This service exposed these members to the intelligence system that remained in place after the Emergency and gave them an overview of intelligence during the Confrontation. Intelligence officers and NCOs continued to serve with General Headquarters Far Eastern Land Forces, the 28th Commonwealth Brigade and their successor formations during, and well after the end of, the Australian involvement in Vietnam.¹⁹ Short-term training and longer exchange postings were also undertaken with the British Army in Malaysia, Singapore, Hong Kong and in Europe. In addition, several officers served in exchange postings in the United States. Several personnel who participated in these activities were later posted to key intelligence positions in Vietnam.

The 101st Wireless Regiment was raised after the Second World War as the Army's primary SIGINT unit. Established in 1947 at Cabarlah in Queensland, the Regiment (as part of the then Defence Signals Bureau) conducted strategic SIGINT collection against 'certain Asian targets'.²⁰ In 1959 it established a subordinate unit in Singapore, 201 Signals Squadron, which conducted similar collection activities.²¹ It was from this sub-unit that 693 Signal Troop was raised for deployment to Borneo. In 1964, the 101st Wireless Regiment was renamed the 7th Signal Regiment and 201 Signal Squadron became 121 Signal Squadron, the latter continuing operations in Singapore until 1974.²² The strategic collection sites in Australia and Singapore gave the Army's SIGINT personnel in-depth exposure to the types of communications (especially those of Asian communist insurgent groups) that they would face in South Vietnam.

Influence of Operational Service

The two types of specialist intelligence units clearly had different operational experiences between 1950 and 1966. Although the divisional intelligence units were only created as the Emergency

was ending, key personnel had served in individual postings in Malaya, where they had observed the specialist units created by the British. Few were detached directly from the divisional intelligence units to Malaysia and Singapore after 1960, and none were deployed during the Confrontation. However, both officers and NCOs serving in Australian headquarters and units worked with, or had knowledge of, British specialist intelligence units; while training and exchange postings also took place in Hong Kong and Britain. Although the exposure of individuals to these activities had an influence on future operations in South Vietnam, it is questionable whether the specialist capabilities represented by the divisional intelligence units received the full benefit of the Australian Army's long engagement in Malaya and Malaysia.

By contrast, SIGINT personnel were deployed early and in a coherent, although small, unit structure. The nine years of operations in Malaya produced tangible benefits in terms of the capability to deploy and operate in a counterinsurgency environment, as well as giving exposure to the communications of an Asian communist insurgent movement. This was reinforced by the deployment of a troop to Borneo during the Confrontation. Underwriting these deployments was the strategic SIGINT collection of units such as the 101st Wireless Regiment at Cabarlah and, from 1960, its sub-unit in Singapore. The strategic collection efforts provided the ongoing equivalent of operational service for the Army's SIGINT personnel, from 1947 onwards.

Notes

- 1 Mark Welburn, *The Development of Australian Army Doctrine 1945–1964*, Canberra Papers on Strategy and Defence No. 108, The Australian National University, Canberra, 1994, p 42; and Richard Bushby, *'Educating an Army': Australian Army Doctrinal Development and the Operational Experience in South Vietnam, 1965–72*, Canberra Papers on Strategy and Defence No. 126, The Australian National University, Canberra, 1998, p. 3.

- 2 Peter Dennis and Jeffrey Grey, 'Emergency and Confrontation—Australian Military Operations in Malaya and Borneo,1950-66', *The Official History of Australia's Involvement in Southeast Asian Conflicts 1948–1975*, Allen & Unwin, Sydney, 1996, p. 52.
- 3 Dennis and Grey, 'Emergency and Confrontation—Australian Military Operations in Malaya and Borneo,1950-66', pp. 54–55.
- 4 Dennis and Grey, 'Emergency and Confrontation—Australian Military Operations in Malaya and Borneo,1950-66', pp. 54–55; and John Blaxland, *Signals Swift and Sure: A History of the Royal Australian Corps of Signals 1947 to 1972*, Royal Australian Corps of Signals Corps Committee, Melbourne, 1998, p. 79.
- 5 Australian Army, *Corps List of Officers of the Australian Army and Regular Army Supplement 1955*, Army Headquarters, Canberra, 1955, pp. 19, 29, 31.
- 6 Dennis and Grey, 'Emergency and Confrontation—Australian Military Operations in Malaya and Borneo,1950-66', pp. 13, 15–16, 18–20; and Anthony Clayton, *Forearmed—A History of the Intelligence Corps*, Brassey's (UK), London, 1993, pp. 243-245.
- 7 Dennis and Grey, 'Emergency and Confrontation—Australian Military Operations in Malaya and Borneo,1950-66', p. 78; Australian Army, *Corps List of Officers of the Australian Army and Regular Army Supplement 1957*, Army Headquarters, Canberra, 1957, p. 24; and L. Wilson, 'Personnel Malaya and Singapore', Australian Intelligence Corps Museum Database, page created 14 June 2001.
- 8 Dennis and Grey, 'Emergency and Confrontation—Australian Military Operations in Malaya and Borneo,1950-66', pp. 54–55.
- 9 Blaxland, *Signals Swift and Sure*, p. 79.
- 10 Dennis and Grey, 'Emergency and Confrontation—Australian Military Operations in Malaya and Borneo,1950-66', p. 56.
- 11 Blaxland, *Signals Swift and Sure*, p. 80.
- 12 Blaxland, *Signals Swift and Sure*, p. 79.
- 13 Neil Smith, *Mostly Unsung: Australia and the Commonwealth in the Malayan Emergency 1948–1960*, N.C. Smith, Melbourne, 1989, pp. 47–124; Department of Veteran's Affairs, Nominal Roll of Vietnam Veterans, (electronic database), Canberra, 1996, multiple entries.
- 14 Clayton, *Forearmed—A History of the Intelligence Corps*, p. 223; Wilson, 'Personnel Malaya and Singapore'.

- 15 Blaxland, *Signals Swift and Sure*, pp. 94–95.
- 16 Dennis and Grey, 'Emergency and Confrontation—Australian Military Operations in Malaya and Borneo, 1950-66', pp. 248–49.
- 17 Blaxland, *Signals Swift and Sure*, pp. 94–95.
- 18 Neil Smith, *Nothing Short of War: With the Australian Army in Borneo 1962–66, Mostly Unsung Military History*, Melbourne, 1999, pp. 109–81; Department of Veterans Affairs, Nominal Roll, multiple entries.
- 19 These included ANZUK Force, 8 Intelligence and Security Company and the Joint Intelligence Centre Far East.
- 20 Blaxland, *Signals Swift and Sure*, pp. 6–7, 48.
- 21 Blaxland, *Signals Swift and Sure*, pp. 94–95.
- 22 Blaxland, *Signals Swift and Sure*, pp. 101–102, 106.

SDSC Publications

Canberra Papers on Strategy and Defence

(excl. GST)

- CP 166 *The War Against Defence Restructuring: A case study on changes leading to the current structure of New Zealand Defence* 24.00
Derek Quigley (co-published with the Centre for Strategic Studies (CSS) at Victoria University, Wellington)
- CP 165 *Essays Commemorating the 40th Anniversary of the Strategic and Defence Studies Centre (SDSC)* 40.00
edited by Meredith Thatcher and Desmond Ball (includes 43 colour plates and contributions by Desmond Ball, Coral Bell, Paul Dibb, Robert O'Neill and Hugh White, together with reprints of essays by T. B Millar and J.D.B. Miller)
- CP 164 *Track 2 Diplomacy in Asia: Australian and New Zealand Engagement* 24.00
Brendan Taylor, Anthony Milner and Desmond Ball
- CP 163 *Ethics of War in a Time of Terror* 24.00
edited by Christian Enemark (with contributions by Alex Bellamy, Richard Devetak, Christian Enemark, Baogang He, Christopher Michaelsen, Jeremy Moses, and Hugh Smith)

Working Papers on Strategic and Defence Studies

Most working papers published since 2002 (i.e. WP363 onwards) are available in electronic (pdf) format and may be viewed and downloaded for free from the SDSC's website at <<http://rspas.anu.edu.au/sdsc/>>. All Working Papers are also available for sale at A\$8.00 (excl. GST).

- | No. | Title |
|------------|--|
| WP 405 | <i>Foundations for Modern Approaches to the China Security Question</i> by John Lee |
| WP 404 | <i>Dien Bien Phu, and the Defence of Australia</i> by Alan Stephens |
| WP 403 | <i>The Domain in which we Dwell: The Foundations, Form and Future of Land Warfare</i> by Craig Stockings |

Abstracts and a complete listing of SDSC publications are also available on the SDSC website. If you wish to place an order, refer overleaf.

SDSC Publications

Ordering Information

- Either one-off or standing orders are accepted.
- The cost of packaging and postage by surface mail is included in all book prices.
- Credit cards welcome (Bankcard/Mastercard/Visa/American Express).

Method of Payment

- *Customers within Australia:* cheque, money order or credit card.
(**Note:** GST is payable on books within Australia.)
- *Overseas Customers:* bank draft (in Australian dollars) or credit card.
- **Cheques/ bank drafts are payable to Australian National University.**
(*simply complete, cut out and fax or post the following form*)

TO: Publications Sales * = voluntary information
 Strategic and Defence Studies Centre
 HC Coombs Building # 9, Fellows Road
 Australian National University
 Canberra ACT 0200 Australia
 Fax: + 61 (0)2 6125 9926; E-mail: sdsc@anu.edu.au.

I would like to receive the following **SDSC Publications**:

___ copies of Canberra Paper No. ___ / ___ copies of Canberra Paper No. ___

___ copies of Working Paper No. ___ / ___ copies of Working Paper No. ___

Name: _____

Address: _____

*Fax no: _____ *E-mail: _____

Please find enclosed (*Australian dollars*): cheque / money order /bank draft

Credit Card no.: _____

Name on Credit Card: _____

Credit Card Type: _____ Expiry date: _____