A BASIS FOR VICTORY
THE ALLIED GEOGRAPHICAL SECTION
1942–1946

REUBEN R. E. BOWD

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1942-1946  

Reuben R. E. Bowd

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ABSTRACT

In the annals of popular military history, pride of place goes to the exploits of major combat units and formations, decisive battles and covert special operations forces. What is often overlooked in the recounting of events is the tireless contribution of a cast of thousands who are overshadowed, often unjustly, by the exploits of the combat elements that prosecute the war. Success in battle is more often than not attributed to factors such as good generalship, superior combat forces and the lethality of the weaponry brought to bear against an enemy. Seldom is much heard of the work of specialist planning staffs, members of smaller unique units, headquartered many miles, perhaps thousands of miles, rearward of the front line working painstakingly during the weeks and months leading up to that cataclysmic event when combat forces take to the field. It is the accuracy of their work that inevitably distinguishes victory from defeat.

This book examines a unique, yet largely forgotten, cornerstone intelligence organisation that played an important role in ensuring allied victory in the war against Japan during the Second World War. This inter-service and inter-allied unit, the Allied Geographical Section (AGS), was established by General Douglas MacArthur's Intelligence Chief, Colonel (later Major General) Charles Willoughby, to address the paucity of even the most basic geographic, anthropologic and hydrographic intelligence available in the Southwest Pacific Area (SWPA) of operations. Its task was so immense and its importance so great that not to record its achievements would be a travesty.
ABOUT THE AUTHOR

Reuben (Ben) Bowd is presently serving as a Regular Australian Army Officer and is the son of a career army officer, Colonel Reuben (Ben) E. Bowd, AM (ARA Retd). He was educated at Waverley College and Saint Ignatius' College, Riverview in Sydney and is a graduate of both the Australian Defence Force Academy (1998) and the Royal Military College of Australia (Duntroon) (1999). At the Academy he studied Arts, double majoring in History and Politics and sub-majoring in Asia-Pacific Studies. In 2001 he was awarded a first class honours degree in History from University College, University of New South Wales at the Australian Defence Force Academy and shared the L.C.F. Turner prize for ‘outstanding performance in History’. He has held a variety of positions within the Australian Army and has seen service with the Peace Monitoring Group while deployed in Bougainville on Operation BEL ISI II and as part of Operation ANODE, the Regional Assistance Mission to the Solomon Islands. His hobbies include reading, recreational swimming and running. He is currently studying Law.
I dedicate this book to my father
without whose help I would not be where I am today.
And to the memory of my beautiful mother
who will forever remain deeply missed in my mind and heart.
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FOREWORD

General Peter John Cosgrove, AC, MC,
Chief of the Australian Defence Force

Sound intelligence is fundamental to a Commander's planning for successful operations.

This book fills an important void in Australian military historiography by identifying the operations and achievements of one of General Douglas MacArthur's key intelligence organisations, the Allied Geographical Section, which provided a 'basis for victory' against the Japanese. It also, along with other intelligence bodies, formed the 'basis' for post-Second World War intelligence agencies in Australia.

Terrain intelligence is crucial to the military planner at all levels and its importance cannot be overestimated. As the Commander of Australian and international forces in East Timor, the importance of geographical intelligence was as prevalent in my decision making as when I was a Platoon Commander in Vietnam. During both campaigns Australian intelligence organisations worked feverishly to gain an understanding of the geography of the areas in which military operations would take place. Their efforts often proved the difference between success and failure.

This book represents one of an increasing number of high quality publications being produced by Australian military personnel who have graduated from service institutions like the Australian Defence Force Academy. Defence strongly encourages the pursuit of academic excellence and it is therefore pleasing to see a trend emerging where works like this one are being produced.

This book is also a testament to the value and efforts of the staff of the University College at the Australian Defence Force Academy and their contribution to the development of future leaders of the Australian Defence Force. The quality of instruction within all departments of that institution, and in this instance the School of History, has once again been proved. The Australian Army History Unit and the Strategic and Defence Studies Centre, Australian National University, should also take credit for their support of this project.
Being published is not only a significant personal achievement but more importantly contributes to the profile and collective knowledge base of the Australian Defence Force. Reuben Bowd should be commended for the depth of research that has led to the production of this publication.

P.J. COSGROVE, AC, MC
General
Chief of Defence Force
March 2005
ACKNOWLEDGEMENTS

This book could not have been written without the generous assistance of many people who contributed to its preparation. To this end I wish to express my appreciation to all those people who offered their time and information. Without your help this book would not have materialised, especially considering the relative paucity of archival and secondary source material. Without information, especially that provided by former members of the AGS and AIF, many of my assumptions and deductions could not have been corroborated. It is hoped that this account will do justice to your military service and that of all former members of the AGS, and provide you with long overdue recognition of the vital contribution that your efforts made to the defeat of the Japanese.

I thank Professor David Horner, Australian National University, for his guidance in the preparation of this book along with Roger Lee, Director of the Australian Army History Unit. I thank General Peter Cosgrove, AC, MC, Chief of the Australian Defence Force for writing the Foreword and I gratefully acknowledge the support and assistance of the School of History, Australian Defence Force Academy (ADFA). In particular, I thank Professor Jeffrey Grey for suggesting the topic and Professor Peter Dennis and Dr Alan Stephens among other members of the school who encouraged me. Associate Professor Robin Prior, Head of the School of History and Captain Jenny Graham, CSM, RAN, Deputy Commandant ADFA (2001), generously assisted with funding and leave during my research trip to the United States in 2001. This trip could not have been successful without the help of a number of people: Lieutenant Colonel Joe Martin (ARA), Assistant Defence Attaché, Washington (2001); Major Bradford Bingaman (USAF), Assistant Air Attaché, Canberra (2001); the Director and staff of the United States Army Military History Institute; Colonel William Davis (USMC Retd) and staff of the MacArthur Memorial Library; and Lieutenant Colonel Francis Galgano (USA), United States Military Academy, West Point. I thank you all for your assistance.

I also thank my father Colonel Reuben (Ben) Bowd, AM (ARA (Retd)), for his help and support and for his sacrifices over many years to provide me with a solid education, and my teachers at Waverley College and Saint Ignatius’ College, Riverview who nurtured in me a love of history.
Finally, I offer greatest thanks to my friend, Gerry Walsh. Gerry has taught me a great deal during our friendship, much of which extends far beyond the academic realm. However, in encouraging me toward this book and assisting me in research he has proven invaluable. Thank you for believing in and supporting me during difficult times and for your unceasing generosity, by way of time and guidance. Despite much angst and frustration, as promised, 'I got there'. Once again, my sincerest thanks and best wishes in your retirement.

Reuben R.E. Bowd
March 2005
ACRONYMS AND ABBREVIATIONS

AAF       Allied Air Forces
ADFA      Australian Defence Force Academy
AFPAC     Army Forces, Pacific
AGS       Allied Geographical Section
AHP       Australian Hydrographic Publication
AIB       Allied Intelligence Bureau
AIF       Australian Imperial Force
ALF       Allied Land Forces
AMF       Australian Military Forces (subject to service in Australia only)
ANGAU     Australian New Guinea Administrative Unit
AS        Area Study
ASOPA     Australian School of Pacific Administration
ATIS      Allied Translator and Interpreter Section
AWAS      Australian Women’s Army Service
AWM       Australian War Memorial
BLACKLIST Code name for plan of operation against Kyushu and Honshu, 1945-1946
CB        Central Bureau
CB        Companion of the Bath
CBE       Commander of the British Empire
CGIS      Combined Geographical Intelligence Section
CIA       Central Intelligence Agency
CIC       Counter Intelligence Corps
CINCPOA   Commander in Chief Pacific Ocean Area
CIU       Central Interpretation Unit
CMF       Citizens Military Forces
CMID      Centrale Militaire Inlichtingen Dienst (Dutch Central Military Intelligence Service)
DDMI      Deputy Director of Military Intelligence, Australian Army
DMI       Director of Military Intelligence
DNI       Director of Naval Intelligence
DSC       Distinguished Service Cross
DSO       Distinguished Service Order
ED        Efficiency Decoration
G-2       Intelligence Section (GHQ)
GHQ       General Headquarters (Headquarters SWPA)
GSC       General Service Corps
HB        Handbook
IO        Intelligence Officer
<table>
<thead>
<tr>
<th>Abbreviation</th>
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<tbody>
<tr>
<td>ISTD</td>
<td>Inter Service Topographical Department (Oxford and SEAC)</td>
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<tr>
<td>JANIS</td>
<td>Joint Army Navy Intelligence Studies (US)</td>
</tr>
<tr>
<td>JCS</td>
<td>Joint Chiefs of Staff</td>
</tr>
<tr>
<td>JIB</td>
<td>Joint Intelligence Bureau</td>
</tr>
<tr>
<td>JICPOA</td>
<td>Joint Intelligence Centre, Pacific Ocean Area</td>
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<tr>
<td>KBE</td>
<td>Knight of the British Empire</td>
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<tr>
<td>LC</td>
<td>Landing Craft</td>
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<tr>
<td>LHQ</td>
<td>Land Headquarters</td>
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<tr>
<td>LO</td>
<td>Liaison Officer</td>
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<tr>
<td>LS</td>
<td>Locality Study</td>
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<tr>
<td>MC</td>
<td>Military Cross</td>
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<tr>
<td>MIS</td>
<td>Military Intelligence Section</td>
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<tr>
<td>MIS-X</td>
<td>Section of MIS that dealt with the recovery of allied prisoners of war and training personnel in survival, escape and evasion techniques</td>
</tr>
<tr>
<td>MLID</td>
<td>Marine en Leger Inlichtingen Dienst (Dutch Navy and Army Intelligence Service)</td>
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<tr>
<td>NARA</td>
<td>National Archives and Records Administration</td>
</tr>
<tr>
<td>NCO</td>
<td>Non Commissioned Officer</td>
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<tr>
<td>NEFIS</td>
<td>Netherlands East (Indies) Forces Intelligence Service (Dutch Intelligence Service)</td>
</tr>
<tr>
<td>NEI</td>
<td>Netherlands East Indies</td>
</tr>
<tr>
<td>NGF</td>
<td>New Guinea Force</td>
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<tr>
<td>NIS</td>
<td>National Intelligence Survey</td>
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<tr>
<td>OBE</td>
<td>Order of the British Empire</td>
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<tr>
<td>OBFOL</td>
<td>Objective Folder Section (RAAF and AAF)</td>
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<tr>
<td>OCE</td>
<td>Office of the Chief Engineer</td>
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<tr>
<td>ONI</td>
<td>Office of Naval Intelligence</td>
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<tr>
<td>OWI</td>
<td>Office of War Information</td>
</tr>
<tr>
<td>OSS</td>
<td>Office of Strategic Services (US)</td>
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<tr>
<td>PI</td>
<td>Photo Interpretation</td>
</tr>
<tr>
<td>POA</td>
<td>Pacific Ocean Areas</td>
</tr>
<tr>
<td>RAAF</td>
<td>Royal Australian Air Force</td>
</tr>
<tr>
<td>RAN</td>
<td>Royal Australian Navy</td>
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<tr>
<td>RANVR</td>
<td>Royal Australian Navy Volunteer Reserve</td>
</tr>
<tr>
<td>RENO I-V</td>
<td>Code name for operational plans drawn up for reoccupation of the Philippines</td>
</tr>
<tr>
<td>RNA</td>
<td>Royal Netherlands Army</td>
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<tr>
<td>RNN</td>
<td>Royal Netherlands Navy</td>
</tr>
<tr>
<td>RNNR</td>
<td>Royal Netherlands Navy Reserve</td>
</tr>
<tr>
<td>SACSEA</td>
<td>Supreme Allied Commander, South East Asia</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Full Form</td>
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<tr>
<td>SCAP</td>
<td>Supreme Commander, Allied Powers</td>
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<tr>
<td>SEAC</td>
<td>South East Asia Command</td>
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<tr>
<td>SEATIC</td>
<td>South East Asian Translation and Interrogation Command</td>
</tr>
<tr>
<td>SHAEF</td>
<td>Supreme Headquarters Allied Expeditionary Forces</td>
</tr>
<tr>
<td>SOUPAC</td>
<td>South Pacific Command</td>
</tr>
<tr>
<td>SR</td>
<td>Special Report</td>
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<tr>
<td>SWPA</td>
<td>Southwest Pacific Area</td>
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<tr>
<td>Tg</td>
<td>Cape</td>
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<tr>
<td>TH</td>
<td>Terrain Handbook</td>
</tr>
<tr>
<td>TS</td>
<td>Terrain Study</td>
</tr>
<tr>
<td>USA</td>
<td>United States Army</td>
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<tr>
<td>USAFA</td>
<td>United States Army Forces in Australia</td>
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<tr>
<td>USAFFE</td>
<td>United States Army Forces in the Far East</td>
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<tr>
<td>USAMHI</td>
<td>United States Army Military History Institute</td>
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<tr>
<td>USN</td>
<td>United States Navy</td>
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<tr>
<td>WAAAF</td>
<td>Women's Australian Auxiliary Air Forces</td>
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<tr>
<td>WDI</td>
<td>War Department Intelligence</td>
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A BASIS FOR VICTORY: 
THE ALLIED GEOGRAPHICAL SECTION 
1942-1946

Reuben R. E. Bowd

When I took a decision, or adopted an alternative, it was after studying every relevant... factor. Geography, tribal structure, religion, social custom, language, appetites, standards – all were at my fingertips.

Lieutenant Colonel Thomas Lawrence to Captain Basil Liddel Hart, June 1933

INTRODUCTION

In the annals of popular military history, pride of place goes to the exploits of major combat units and formations, decisive battles and covert special operations forces. What is often overlooked in the recounting of events is the tireless contribution of a cast of thousands who are overshadowed, often unjustly, by the exploits of the combat elements that prosecute the war. Success in battle is more often than not attributed to factors such as good generalship, superior combat forces and the lethality of the weaponry brought to bear against an enemy. Seldom is much heard of the work of specialist planning staffs, members of smaller unique units, headquartered many miles, perhaps thousands of miles, rearward of the front line working painstakingly during the weeks and months leading up to that cataclysmic event when combat forces take to the field. It is the accuracy of their work that inevitably distinguishes victory from defeat.

This book examines a unique, yet largely forgotten, organisation that played an important role in ensuring allied victory in the war against Japan. This inter-service and inter-allied unit, the Allied Geographical Section (AGS), was established by General Douglas MacArthur’s (1880-1964) Intelligence Chief, Colonel (later Major General) Charles Willoughby (1892-1972), to address the paucity of even the most basic geographic, anthropologic and hydrographic intelligence available in the Southwest Pacific Area (SWPA) of operations. The AGS was the cornerstone intelligence organisation for the planning of operations against the Japanese.
Map 1

The boundaries of the Southwest Pacific Area and the extent of the Japanese advance, 1942
(Source: Horner, David, Blamey: The Commander-in-Chief, p. 283, courtesy of the Cartography Unit, Australian National University)
SWPA was a zone of command established on 18 April 1942 under General MacArthur. It extended from Southern China, incorporated the Philippines, the archipelagos of the Netherlands and British East Indies, and continental Australia. It was initially headquarter in Melbourne, but as the war progressed moved to Brisbane, Hollandia, Leyte and Manila. To its west, under British Admiral Lord Louis Mountbatten (1900-1979), lay South East Asia Command (SEAC), incorporating the southern portion of continental Asia and Sumatra. SEAC was initially headquartered in New Delhi before moving to Kandy, Ceylon and Singapore. To its east and north lay the Pacific Ocean Area (POA), under United States Navy (USN) control, headquartered in Hawaii and commanded by Admiral Chester Nimitz (1885-1966). POA was divided into three zones: South Pacific Area, comprising New Zealand and most of the islands to the east of New Guinea, and Central and North Pacific Areas focusing on localities north of the Philippines, with which the AGS was not concerned until the closing days of the Second World War. The AGS focused its efforts on the territories in SWPA occupied or threatened by the Japanese. Continental Australia was specifically excluded from the Section's area of responsibility. Once a target area was re-occupied or re-controlled, all work ceased and was archived for future reference.\(^3\)

Compared with Western Europe, which in the pre-war years had been exhaustively mapped and studied, much of the SWPA was in a backward state, unexplored and unmapped. In the early phases of the war, many commanders found geographical intelligence so scarce that they were forced to turn to pre-war literature, travel guides, postcards and novels, to gain even a basic understanding of the areas where they were to fight. Information was so hard to come by that many officers of Task Force 6814 (the Americal Division), tasked in 1942 to garrison the islands along the sea routes to Australia, found that their initial briefings consisted of information extracted from pre-war tourist pamphlets. Meanwhile, the Office of Strategic Services (OSS), the predecessor of the Central Intelligence Agency (CIA), found itself so desperate that it had to conduct interviews with Charles Nordoff (1887-1947) and James Hall (1887-1951), the authors of 'The Bounty Trilogy': *Mutiny on the Bounty* (1932), *Men Against the Sea* (1933) and *Pitcairn's Island* (1935).\(^4\)
Map 2
Area of interest to the AGS upon which reports were produced
(Source: AGS Souvenir Book, p.15)
The AGS was created to rectify this problem by providing terrain appreciations to meet the requirements of operational staffs and troops. The Section incorporated representatives of the Dutch, Australian and American armed forces and was but one of many special units like, among others, the Allied Translator and Interpreter Section (ATIS), that were created and tasked to collect and collate intelligence data of the most basic nature required to prosecute the war. The Section’s work ‘contributed materially to the successful termination of the war’ against Japan by providing invaluable information on places previously unheard of by the fighting men who in a short time had to ‘fight for them, live in them and die in them’.

From its creation, the pace of the Section’s work was furious and did not stop until the war ended. Time limitations presented difficulties. Information had to be produced quickly as the nature of the Section’s work was such that it was required for the planning phases of operations. Producing geographical intelligence is no easy task; its many components, such as the elements of weather, are not constant and so the provision of accurate information presents unique challenges. Also, owing to the specialised nature of the field, personnel possessing high professional and tertiary qualifications are required, with training and experience not normally prioritised during regular military education. Combat troops were rested between campaigns. The AGS was not afforded this luxury.

During the war other agencies beside the AGS would enter the realm of geographical intelligence with varying degrees of success. These included the Inter Service Topographical Department (ISTD), the British counterpart of the AGS, United States Engineer Intelligence and the Division of Naval Intelligence in Washington that produced Joint Army Navy Intelligence Study(ies) (JANIS). Unarguably the AGS outperformed them all in both quality and quantity of product. Some organisations, seeking to compete with the AGS for paramountcy in the field, became reliant on the work of the Section for the production of their own studies and were even discovered to be passing off the work of the AGS as their own. It was the opinion of Lieutenant General Stephen Chamberlin, General Service Corps (GSC) (1889-1979), who served as MacArthur’s Chief of Operations (1942-1945) and later as Director of Intelligence, Department of the Army (1946-1948), that ‘the Southwest Pacific Area produced a number of intelligence agencies and techniques required by the special geographical conditions in the theatre. In many respects they could have served as models for other areas of operations’. The AGS was a pioneer in the geographical intelligence field and was largely developed in the absence of any comparative model on which to base its work and structure. It appears that only two
geographical intelligence organisations predate the Second World War bodies. These were the French Service Géographique and the German Institute für Geopolitik.

The Service Géographique was established early in the nineteenth century and dealt not only with continental Europe but also other areas of interest to the French. For example, in 1899, the Service Géographique de l’Indochine was set up by the French Army’s General Staff in Indochina. The service was responsible for surveys and map making. However, it wasn’t until the disastrous experience in Flanders during 1915 that the Service Géographique was instructed to prepare the first operational terrain maps. These were simple ‘going’ maps showing the ‘passibility’ of the ground in general. Flanders was important strategically as it provided a corridor between France and Germany. Ypresian clay was found to be generally saturated and thus water supplies became contaminated, excavations and earthworks slumped, trenches filled with water, the explosive impact of ordnance was diminished and movement was impeded. These are clearly important considerations for any military commander. During the Second World War, although terrain maps were produced, specialist terrain information was generally not available to commanders, who were forced instead to rely on inferior assessments provided through normal intelligence channels.

The Institute für Geopolitik in Munich was set up after the First World War and owed much to the German general and political geographer Karl Haushofer (1869-1946). Haushofer got the idea of using geographical facts for the understanding of political issues from the British geographer Sir Halford Mackinder (1861-1947), and built up a pseudo-science called ‘geopolitiks’, a mixture of geography, political science and topical politics. His aim was to use it for the revision of the Peace Treaties after the First World War. In typical German fashion, the geopoliticians at the Institute built up an immense data bank using card indexes and files to record even the minutest geographical facts about every place in the world. When the Nazis came to power in Germany in 1933, they perverted the aims of the Institute and used it for propaganda purposes, especially for the export of concepts such as Lebensraum. Lebensraum (or Living Space) is understood by geopoliticians to be the right of a nation to claim ample living room and resources for its population. Haushofer fell from grace in 1938 and committed suicide.

Very little has been written on the AGS. David Horner in High Command (1992) makes several references to the Section and by inference indicates its importance, along with the Allied Intelligence Bureau (AIB), ATIS and Central Bureau (CB), when he says that from 1943 it was possible 'to make
strategic decisions with confidence and precision’ as opposed to earlier years when they were based on ‘inexact knowledge’. However, in many operations mentioned in his book, such as the five phase RENO operational plans for the reoccupation of the Philippines, its role is not documented in any detail despite the fact that the AGS made significant contributions. Other publications which focus on specific battles in the SWPA, such as Peter Stanley’s Tarakan: An Australian Tragedy (1997), omit any mention of the AGS despite it preparing detailed studies for these operations. Judy Thomson in Winning With Intelligence (2000) briefly mentions the AGS as a professional body that formed an integral and essential part of the allied intelligence set-up.

Major General Willoughby in MacArthur 1941-45: Victory in the Pacific (1956) described the AGS as ‘one of the great unappreciated work-horses of the War’. Colonel Allison Ind, who served with the Intelligence Section in the SWPA during the war, briefly mentions the AGS in his book Spy Ring Pacific (1958) as one of ‘half-a-dozen projects [of General Willoughby] that were to be of great importance’. However, Alan Powell’s book on the AIB, War By Stealth (1996), completely ignores it. John Coates in Bravery Above Blunder (1999) refers to the AGS in a passing criticism of its alleged inability to identify critical points of military interest in the Finschhafen campaign. Joan Beaumont’s Volume VI in the seven volume centenary history of the Australian Department of Defence, Australia’s Defence: Sources and Statistics (2001), completely ignores the AGS in the ‘intelligence’ section. Likewise, Eric Andrews in Volume V of the same series, The Department of Defence, although mentioning the Section’s Australian successor, the Joint Intelligence Bureau (JIB), also makes no mention of it. Also, in three of the most recent publications dealing with geography and terrain in warfare, namely Patrick O’Sullivan’s Terrain and Tactics (1991), Harold Winters’ Battling the Elements (1998), and most recently Rose and Nathanael’s Geology and Warfare (2000), the AGS does not receive a mention.

In the official history of Australia in the Second World War, David Mellor in The Role of Science and Industry (1958) deals with the AGS in three, short, laudatory paragraphs; in the remaining 21 volumes the Section only receives a brief footnote in two volumes. It is however worth noting that David Dexter, author of The New Guinea Offensive (1961), categorised the AGS in private correspondence as one of the ‘service activities of a geographical kind that were of lasting scientific value’. Although mentioned in the glossary of terms, there are no references to it in the 11 volumes relating to the War in the Pacific in the history of the United States Army in World War II (1957). Furthermore, in the five volume series Victory and Occupation: History of Marine Corps Operations in World War II (1968) the AGS is not mentioned.
This is surprising in light of the number of amphibious operations in the SWPA, although it is acknowledged that comparatively few Marines served in SWPA compared with other areas of the Pacific. The AGS, unlike the AIB and other covert intelligence agencies, probably did not attract scholarly attention as it was very much a ‘back room’ outfit and not considered as exciting and interesting a unit as, say, the Coastwatchers.

The AGS was one of nine SWPA intelligence organisations written about after the war in General Willoughby’s Intelligence Series, Volumes I-IX. The primary ‘publication’ referring in any detail to the AGS is Volume VI, General Intelligence Series, Operations of the Allied Geographical Section, prepared by its Director, Colonel William Jardine-Blake (1894-1971), and edited by Willoughby.\textsuperscript{31} However, this is a largely indifferent, repetitive, and poorly organised account and gives very little insight into the operational value of the AGS.

Throughout history, geography has been, and will continue to be, of critical importance to the conduct and outcome of battles and wars; factors such as weather, terrain, soil and vegetation are ‘important, cogent, and sometimes decisive in battle’.\textsuperscript{32} In the fifth century BC, Sun Tzu wrote of the importance of geography in The Art of War when he opined that ‘those who do not know the conditions of mountains and forests, hazardous defiles, marshes and swamps, cannot conduct the march of an army’.\textsuperscript{33} The ability of planning staffs and their subordinate commanders to know in detail the ground over which they are to campaign is the individual soldier’s first safeguard as ‘in the operational phase the well briefed combat soldier, fully aware of the conditions facing him, has the maximum chance of success and survival’.\textsuperscript{34} Instances of the importance of geography in warfare abound from antiquity to the present, and in fact it is probable that the use of geographical knowledge in military decision making even pre-dates written history.

The use of military geography can be traced to the first battle recorded by history at Megiddo (Armageddon), near Haifa, in 1479BC.\textsuperscript{35} The Egyptian military scribe Tjaneni recorded the victory of Pharaoh Tuthmosis III over the Canaanite Kings of Megiddo and Kadesh who had rebelled against the New Kingdom of Egypt. Against the advice of his generals, Tuthmosis led his forces along the narrow Aruna Pass onto the Plain of Esdraelon, achieving surprise over his enemies and a victory that re-established Egyptian rule over Palestine. Likewise, the Book of Samuel in the Bible gives an account of the army of Saul, first King of Israel (circa 1050-1010BC), using geographical advantage to defeat the better equipped and numerically superior Philistines in the battle of Michmash, a strategic pass into the
Jordan Valley. Over 3,000 years later, both the tactics of Tuthmosis and Saul were repeated by British forces under Field Marshal Sir Edmund Allenby (1861-1936), 1st Viscount of Megiddo, while fighting the Turkish Army in Palestine during the First World War. In addition to these two early battles, examples of military leaders using geographical factors to their advantage, or ignoring them to their peril, abound. Xenophon’s (circa 430-355BC) account of the march of the 10,000 across Asia Minor in 401-399BC, the Anabasis, contains many examples of the use and abuse of the principles of military geography. When Publius Varus, a Roman General in 9AD, failed to appreciate geography, it cost the empire of Augustus all the territory between the Rhine and Elbe. This was because Varus was accustomed to a Mediterranean scenario incorporating a dry season. He had never experienced the problems of swampy, cold-wet conditions found in mixed-deciduous forests during prolonged rainfall which mired his cavalry and wagons.

When Thucydides (circa 460-400BC) wrote his History of the Peloponnesian War which lasted from 431-404BC, he recorded geographical factors such as terrain, waves and tides, wind, dust, drought, marsh, and fog as being significant in determining the outcome of battles. Thucydides cites many instances where knowledge of geographical intelligence afforded a marked advantage and turned the tide of battle in favour of the army that had used geography to its advantage. Furthermore, during the battle of Poitiers in 1356, Edward, the Black Prince (1330-1376), won a decisive victory through a prudent appreciation of geographical factors by drawing his French opponent onto soft ground where their heavily armoured knights sank. In 1759 Major General James Wolfe’s (1727-1759) appreciation of the landing area and ravine at l’Anse du Foulon provided the British a strategic and tactical advantage over Quebec. Napoleon Bonaparte’s (1769-1821) fateful march across the vast expanses of Russia (repeated by Adolf Hitler (1889-1945) in 1941) in the bitter cold of winter during the infamous 1812 campaign is but another classic example of the perils that await a commander who disregards or fails to appreciate geography in military planning.

To benefit most from the study of geography one must acknowledge, as did Newton Baker (1871-1937), United States Secretary of War between 1916 and 1921, that ‘history is geography in motion’, as it plays an integral part in all military planning and war making. The United States Department of the Army Pamphlet Number 145-1, July 1951, attests that:

To direct military planning, to participate actively in a war, or even to understand military strategy and tactics; one must know the effects of geographical factors on military operations.
A war could not be planned or waged without intimate knowledge of the width, depth, and navigability of rivers; climate, weather, topography and ground cover; the size and shape of oceans and adjoining seas; the shape, area and relative locations of the continents, countries and islands; the distribution of arable land and of natural resources ... these are only a few of the geographical facts military leaders must know.\textsuperscript{35}
CHAPTER 1

'A UNIT IS BORN'
(AUGUST 1940 - OCTOBER 1942)

The AGS was established on 19 July 1942. By this time the Japanese had overrun much of South East Asia, New Guinea and its adjacent archipelagos. However, the need for an organisation to collect and collate detailed terrain, hydrographic and other military intelligence of a geographic and socio-geographic nature was well understood and had been envisaged both in Australia and the United States before the beginning of the Pacific War.

With Japan's entry into the war on 7 December 1941, the paucity of even basic geographic intelligence regarding the land and sea approaches to the north of Australia was clearly evident. Prior to the Pacific War, Australian Army Intelligence units were busy compiling the kind of geographic intelligence that would be required if military operations were undertaken in Australia. The primary task of AGS would be to provide Headquarters SWPA with the basic geographical information, and detailed terrain appreciations for the use of operational commands and combat troops. The continental area of Australia was specifically excluded from AGS responsibility.

From August 1940 onward two Australian officers in Eastern Command, a geographer and an agricultural scientist, were employed to collect and collate topographical and economic information. The pair's reconnaissances were conducted over an extensive area as they sought information from such sources as the Department of Main Roads, Shire Councils, the National Roads and Motorists' Association, the State Lands and Forestry Departments, and the University of Sydney, as well as many other sources. Little is known of the geographer although the agricultural scientist was Captain (later Major) Peter Reid (b. 1906), a graduate of Melbourne University who, prior to the war, had gained 15 years' practical experience in the field whilst working at Glenmore Station at Scone in New South Wales. Until 1939 he worked as a government agriculturalist in New South Wales. In August 1940 Reid was appointed Officer in Charge of Topographical Intelligence in Eastern Command and, until March 1942, was a member of the New South Wales Lancers of C Area. Reid had spent two months as
Second in Charge to Major (later Lieutenant Colonel) Adam Smith, Staff Officer Intelligence, 1st Australian Army, and subsequently became ‘technical director’ and Assistant Director of the AGS until he handed over this position to Major Smith in July 1943. After the war Reid joined the Rural Division for the Department of Post War Reconstruction that later became the Bureau of Agricultural Economics. In recognition of his talents in the agricultural field, in October 1958 he was appointed as head of the Agricultural Division of the International Bank for Reconstruction and Development (the World Bank).

The AGS evolved from a number of conferences and directives, issued from the General Headquarters (GHQ (Headquarters SWPA)) of General Douglas MacArthur, Commander-in-Chief of Allied Forces in the SWPA. The initial decision to establish a unique organisation, exclusively devoted to the collection and collation of information of geographical significance to tactical planning, was made at a conference called by MacArthur’s Assistant Chief of Staff, G-2 (Intelligence), Colonel (later Major General) Charles Willoughby in early 1942. The conference was attended by representatives of the Dutch and American forces as well as senior intelligence officers (IOs) of the Australian land, air and sea services. No official record of this conference is extant, but it was agreed that a geographical organisation would be established as an inter-service body and staffed by American, Australian and Dutch personnel. Following this meeting, Lieutenant Colonel William Gray (b. 1887), the Intelligence Staff Officer at Headquarters Australian Military Forces (AMF) issued instructions for the preliminary organisation of the Section after receiving a curt memorandum dated 28 March 1942 from the Deputy Director of Military Intelligence (DDMI), Colonel Caleb Roberts (1898-1965), which read:

Following conversations will you please set one officer onto the task of collecting all information about the islands to the north of Australia:

2. Timor: Navy is arranging for copies of documents only to be taken from the Mitchell Library. They will let us have one [a copy].

Gray immediately appointed Lieutenant Francis Williams (1893-1943) to complete the task assigned by Colonel Roberts and Williams set about collecting all available information on New Guinea and the island of Timor. Williams was a talented academic, evidenced by his selection as a Rhodes...
Scholar in 1915 and his degrees obtained from Adelaide University and at Oxford. Prior to the war he had been Government Anthropologist of Papua (1928-1943) and had seen previous military service with the Australian Imperial Force (AIF) in France and with Dunsterforce in Persia during the First World War. Dunsterforce was established in 1917 to prevent an invasion of India by Germany and Turkey and to aid in the establishment of an independent Trans-Caucasia. It was commanded by Major General Lionel Dunsterville (1865-1946), and comprised specialist troops from Australia, Britain, Canada and New Zealand.

At the time of his appointment Williams was working for Lieutenant Colonel Gray, on a 'military directory' of Australia, a 'compendium of information on all matters having, or capable of assuming, military significance'. His new assignment included the preparation of a 'Table of Subject Headings', to be used as a structural template for geographical studies. He was also tasked with compiling maps of Papuan terrain and producing descriptions of the physical hazards and native peoples of each area. He was well qualified for this task by virtue of pre-war appointments that included an extraordinary amount of fieldwork and over five years' practical experience living in Papuan villages. Also, in 1929 he founded and edited the Papuan Villager (1929-1942), a monthly newspaper published in simple English. It was his keenness to return to New Guinea that saw Williams transferred as liaison officer (LO) to the Australian New Guinea Administrative Unit (ANGAU) in March 1943. He was subsequently killed in an air crash in the Owen Stanley Ranges in May of that same year. Despite the brevity of his tenure, Williams' contributions to the early establishment of the AGS had a profound impact on the work and direction of the unit for the remainder of the war.

The 'table' prepared by Lieutenant Williams was to become the basic guide to the layout of AGS Terrain Studies in order to ensure that they met military requirements. Headings such as enemy strengths, dispositions, installations, and armaments as well as aerodromes and landing grounds became standard, as did geographical information such as the main points of military importance, offshore conditions, anchorages, transport, rivers and creeks, and medical problems. These were supported, when available, by photographs, maps and charts. Williams was advised at the time to expect his work to expand and additional officers were soon assigned to assist him. At its peak, eight staff were employed on this work.

In early June 1942 another meeting was convened between representatives of the Dutch, American and Australian armed services to
discuss the collection and collation of geographical intelligence material in an inter-service, inter-allied environment. Subsequently, on 17 June 1942 General MacArthur’s headquarters issued a directive establishing a Combined Geographical Intelligence Section (CGIS) under an officer to be nominated by General (later Field Marshal) Sir Thomas Blamey (1884-1951), Commander in Chief of Allied Land Forces (ALF).

By the time this first foundation directive was issued, Lieutenant Williams’ staff totalled three. He had been joined by two highly qualified officers well suited for geographical intelligence work by virtue of their pre-war experiences in relevant fields. The first of these officers was an Australian, Lieutenant Frederic Pollard (b. 1903), who was appointed to the Section on 27 April 1942. Pollard had been Secretary for Native Affairs in the Government of Sarawak prior to the war and remained with the AGS until the latter half of 1943. The second officer, an American, Major (later Lieutenant Colonel) W.H. Gallaher, joined on 4 May 1942 and served with the AGS until 1944, bringing to the Section extensive experience from a background as an oil geologist with the Standard Oil Company prior to 1941. The CGIS was directed to be formed as an amalgam of ground, naval and air intelligence personnel from Australia, the United States and the Netherlands East Indies (NEI) forces.

The 17 June 1942 directive acknowledged a requirement to ‘provide continuously geographical studies of terrain and tactical estimates of enemy dispositions in the islands to the north, northeast and northwest of Australia’. It stated that ‘these studies are desired as a basis for planning amphibious operations in these areas and for the preparation of maps, photographs, etc., for the use of Task Force Commanders’. Further, in an effort to avoid duplication of effort, the directive outlined that fully qualified officers, currently working in related fields, should be drawn from existing intelligence agencies to work within the Section.

The CGIS was originally envisaged as comprising 12 members:

- Officer in Charge – nominated by Commander ALF.
- Deputy – nominated by GHQ.
- Land Forces (Survey Section Engineer) – one officer.
- Land Forces (Intelligence) – one officer.
- Naval Intelligence – one officer.
- Air Intelligence – one officer.
- Dutch and NEI forces – one officer.
- Draftsmen - two personnel (one Army and one Air Force).
- Clerks - three personnel (one Army, one Navy and one Air Force).

The names of prospective candidates identified to fill appointments within the organisation were to be forwarded by the appropriate service to Headquarters SWPA by 24 June 1942 so that the CGIS could be established by 29 June 1942. However, the 17 June 1942 directive had limited impact and gaining full compliance with manning requirements proved impossible, as the services involved were reluctant to make staff available to the Section.

Meanwhile, the work of the fledgling Section continued. On 28 May 1942, the Section published its first product — a report on Portuguese Timor. By 14 June 1942 three more reports had been published on Casmata, Rabaul and New Ireland. Following these initial reports, and immediately recognising their value, requests began to flood into the Section from MacArthur’s Headquarters for further reports to be produced on other localities, especially those in or near New Guinea, such as Babo, Manus, Salamaua, Lae, Madang, and Wewak. Only a few days were allowed for their production and, incredibly, the deadlines were met. However, not surprisingly, the reports prepared under such hasty conditions were soon identified as having several shortcomings. The officers of the Section, at this early stage, lacked an understanding of basic military requirements and the reports were being prepared along academic rather than military lines. The backgrounds of the compilers meant that the Section was staffed, in effect, by highly qualified academics in uniform. Their experiences were based on antiquated practices due to a lack of exposure to modern military intelligence techniques. Furthermore, their military experiences, if any, were drawn from service in the First World War. As a result, the organisational structure of the Section became the focus of attention in subsequent directives and, for the remainder of the war, trained soldiers were used to direct the work of those lacking a military background. Nevertheless, at this early stage, the Section was already setting a tempo of work that never relaxed throughout the Second World War.

On 19 July 1942, a combined directive of understanding was released by MacArthur’s Headquarters. This second and more comprehensive directive formally gave birth to the concept of a CGIS by establishing a new unit, the AGS. The AGS was housed in Victoria Barracks, Melbourne and initially comprised nine staff, six officers and three other ranks. Temporary command of the Section (reflecting the urgent requirement for the unit’s work) was given to Lieutenant Colonel (later Colonel) Evan Mander-Jones (1902-1975). Mander-Jones, educated at both the University of Sydney and Oxford, had worked prior to the war as a teacher at the Sydney Church of England
Grammar School, before being appointed as an IO in November 1939. Unlike most other early members of the Section, he had already seen active service during the war in the Middle East, Greece and Crete as part of Headquarters I Corps, and in Sumatra where he assisted both Dutch civilians and refugees from Malaya escape the invading Japanese. He also helped destroy part of the harbour of Oosthaven to prevent it falling to the Japanese. Oosthaven, situated at the southern tip of Sumatra, was the rendezvous point for the evacuation of allied forces. Mander-Jones was later appointed to the Order of the British Empire (OBE) for his work in Sumatra and in January 1945 was appointed DDMI. Following the cessation of hostilities, in 1946 he became Director General of Education in South Australia, an appointment that he held until 1967. With Mander-Jones' appointment, the Section now, albeit briefly, came under the control of a competent executive and trained IO. He had been placed in charge of the AGS under an agreement between Australian and American authorities that his service would be temporary, and under the condition that he would be released when a suitably qualified officer could be found as a replacement.68

The directive of 19 July 1942 instructed the AGS to 'constitute itself, not only as the producer of special terrain studies, but as the coordinator of all geographical information', and to 'be responsible for the preparation of all terrain studies required by [Headquarters SWPA] and subordinate commands'.69 It laid the groundwork for AGS liaison with other related organisations under MacArthur's command, such as the Chief Engineer Officer, and Engineer Officer United States Army Forces in Australia (USAFA), with regard to the preparation of serial maps required to cover localities subject to special study.70 The directive also resolved confusion in command arrangements. Prior to 19 July 1942, members of the Section were unclear as to whom they were ultimately responsible. The Australian Director of Military Intelligence (DMI), as well as General Willoughby, both exercised some degree of authority. After 19 July the uncertainty was resolved by placing the AGS under Willoughby's command, with the influence of the DMI being confined solely to administrative matters affecting Australian personnel.71 Most of the financial burden of the AGS was to be borne jointly by the Australian Army and the United States Army(ies) (USA), the exception being the cost of civilian employees. This was to be borne exclusively by the Americans.72 Willoughby was to spare no expense on the newly formed Section and promised the full cooperation of all agencies under command of Headquarters SWPA.73 It was Willoughby's encouragement and intense personal interest in the AGS that allowed the Section to expand so rapidly.74 This interest continued throughout the war and even saw Willoughby
contribute to illustrating the AGS Souvenir Book that was prepared as a post-war keepsake for Section members.

The AGS lost no time in focusing on specific military requirements. This was achieved through the preparation of two ‘Tables of Subject Headings’, that developed on the earlier work completed by Williams and which became, for some time, the basic guide for all reports issued by the AGS. On 1 August 1942, in accordance with the aforementioned agreement, Mander-Jones relinquished command to Major (later Colonel) William Jardine-Blake who retained command as Director of the AGS for the remainder of the war. Jardine-Blake was an important personality within the AGS and was typical of the type of officer suited to such intelligence work. He was a solicitor and had worked for the British Colonial Service in the Solomon Islands prior to the war. He had also seen active service in Egypt, Gallipoli and France with the First AIF, as did his brother Major General David Blake (b. 1887) who had been a Flying Corps Ace. Jardine-Blake was a reserved yet highly competent officer, well regarded and respected by his subordinates for his sense of fair play and keen regard for the wellbeing of his troops. He brought to the Section not only a methodical mind, but also extensive knowledge of the Southwest Pacific region gained through over 20 years of living and working in the Solomon Islands.

By the end of August 1942, the AGS had completed 14 terrain studies and a further six were in progress. On 3 September 1942, AGS followed Headquarters SWPA in its relocation to Brisbane and commenced operations in new premises at 115 Queen Street on the fourth floor of the Brisbane Permanent Building and Banking Company (later the Bank of Queensland) Building. Lieutenant Pollard had been dispatched to Brisbane on 27 August 1942 with orders to secure suitable premises for the Section’s move. He was joined by Major Reid on 31 August 1942, and Jardine-Blake, with the remainder of AGS staff, arrived from Melbourne on 2 September 1942. The building was located just a few blocks from Headquarters SWPA (also in Queen Street), and was purpose modified by the Royal Australian Engineers (RAE) with communications equipment installed by USA Signals personnel.

Many problems confronted the Section during its infancy. These generally stemmed from the inter-allied nature of the AGS. In the USA, topographical intelligence was, and remains today, the function of the Engineer Services and, to that end, pressure was exercised by the USA Engineers in Australia to secure control of the Section. Despite this, the British practice was followed and the AGS became a component of military intelligence directly responsible to Willoughby’s Intelligence Command.
As the Engineers were heavily involved in work that included the reproduction of an increasing number of maps, they required AGS assistance. The AGS in turn recognised the importance of Engineer assistance to the success of its work. Although Engineer attempts to secure control over the AGS persisted throughout the war, it was this mutual interdependence between the two organisations that allowed them to set aside differences of opinion over command arrangements to become a well-coordinated team. Engineer 'Annexes' became a valuable addition to the AGS Terrain Study, supplementing them with pertinent engineering data, including the most recent aerial photographs that, in many instances, had been unavailable at the time of printing due to strict publication deadlines. However amicable this arrangement may have appeared, it remained the opinion of some senior officers within the AGS, including Jardine-Blake, that 'cooperation with some branches of the services, notably United States Engineer Intelligence, Royal Australian Air Force (RAAF) and the Dutch Services, remained unsatisfactory throughout [the war].'

The lack of cooperation between the various intelligence agencies and the AGS is directly attributed to the existence of unhealthy competitive attitudes that resulted in much unnecessary duplication of effort. This competition was exemplified in the publications of the Counter Intelligence Corps (CIC), particularly in the production of their hastily assembled, mimeographed 'Area Studies'. Between 1944 and 1945, the CIC produced 12 Area Studies on localities almost exactly duplicated by 30 AGS studies that were far superior. Jardine-Blake was obviously frustrated by this situation when he opined that:

The competitive duplicatory nature of some of the intelligence organisations affiliated with the theatre [Intelligence] has been commented on elsewhere. A particularly flagrant example can be found in the publication by CIC (Counter Intelligence Corps), of so-called 'area studies'. Hastily assembled, mimeographed issues, with old or inadequate map material, these 'area studies', were developed by CIC, in Sydney or Brisbane, within a stone’s throw of the AGS Headquarters, then successfully engaged in the publication [by literally] [of] thousands of copies of [printed] terrain studies and handbooks that reached staffs and troops well in advance of operations. CIC was either not aware of these publications, which is [stupid] [ignorant], or they preferred their own 'trade-mark' which is wasteful [, presumptuous] and inefficient. One of the worst examples is their publication, Area Study No. 22, North
Borneo, Sarawak and Brunei. At this time there was published by AGS and available in large numbers the following: *Handbook No. 59, Brunei Bay; Terrain Study No. 89, Sarawak; No. 90, North Borneo; and No. 109, South Borneo.*

Another issue concerned the whereabouts of known reports and studies prepared years before the war by other intelligence agencies. These reports were known to exist in Naval and Military Headquarters in Australia. However, when copies were requested by the AGS, they could not be found. Yet again, counterproductive competition between intelligence organisations was partly to blame for this. A great deal of attention was given to the development of relationships between the AGS and other intelligence agencies in a concerted attempt to reduce the identified problem of duplicated effort, especially in the interrogation of informants by numerous unrelated agencies. However, as is the nature of intelligence organisations, much duplication of effort continued throughout the war and complete cooperation between the varying intelligence agencies continued to prove impossible to achieve due to rivalry and jealousy.

The Dutch were also a problem. Although they had promised full cooperation with AGS, by September 1942 no Dutch personnel had yet been made available to serve within the Section. On 8 September 1942, Jardine-Blake interviewed the *Marine Commandement Australie* (the senior Dutch naval officer in Australia), Rear Admiral Frederik Coster (1886-1966), in the presence of Willoughby's second in command, Colonel Van S. Merle-Smith, Executive Officer SWPA Intelligence, and impressed upon him the requirement for Dutch personnel to be assigned to the AGS. The Admiral agreed to provide one officer immediately, with others to follow, as they became "available". To this end, a Dutch LO, Lieutenant Commander Fritz Wissel (1907-1999), was assigned to the AGS on a part-time basis. This proved an entirely unsatisfactory arrangement as competing work priorities meant that the Dutch representative was rarely seen working with the AGS. This situation was not resolved for a considerable period of time and worsened when Wissel was stationed in Darwin during 1943 as a Dutch LO carrying out duties unrelated to AGS work. Coster was replaced by Rear Admiral Pieter Koenraad (1890-1968) as flag officer in charge of all Dutch naval forces in Australia on 1 May 1943, a position he held until 1 October 1945.

From the time of their earliest involvement in the Section, 'evidence was accumulating that the Dutch regarded all intelligence relating to the NEI as their prerogative and appeared to deprecate the intrusion of allied officers into this field'. Jardine-Blake observed with some distain that the 'general
attitude [of the Dutch] ... was in conflict with the three directives which governed geographical intelligence and which had been directed to, amongst others, the Dutch Command'. 90 This was despite assumptions made from the outset that the Dutch had 'not indicated dissent from the agreements made and ... intended fully to cooperate in the Allied Section'. 91 It was for this reason, combined with continued Dutch intransigence, that some senior members of the AGS, including Jardine-Blake, were heard at times to remark that they 'doubted their [the Dutch] sincerity in the fight'. 92

Differences in opinion between senior officers within Willoughby's command served to compound the problem, as some senior members actually supported Dutch claims to exclusivity over their former territories. By the end of 1942, Jardine-Blake had applied considerable pressure on the Dutch command to secure its compliance with the original directives and, in his own mind, was making solid progress toward this end. However, Colonel Merle-Smith hampered these efforts when, on 13 January 1943, he instructed Jardine-Blake 'in terms that accounted to acceptance of the Dutch attitude'. General Willoughby subsequently countermanded Merle-Smith's instructions on 15 March 1943, although by this time the damage was done and it proved difficult to retrieve the position lost. It was this obvious divergence of opinion that 'remained one of the factors which militated against securing the satisfactory cooperation of the Dutch in the AGS'. 93

After the Japanese invasion of Java on 12 March 1942, the Dutch military authority had fled to Australia and established a rival intelligence agency, staffed by a small semi-permanent community of Dutch service personnel and civilians residing in Melbourne, in an attempt to produce their own intelligence estimates including terrain appreciations. This organisation was known as the Netherlands East Indies Forces Intelligence Service (NEFIS) and was initially located at 225 Domain Road, South Yarra in Melbourne. 94 NEFIS comprised three sections: Section I (General Intelligence); Section II (Security); and, Section III (Special Intelligence and Special Operations). Although the term NEFIS was in popular use much earlier, the organisation was not officially created under that title until 1 April 1943, with its origins lying in the Marine en Leger Inlichtingen Dienst (MLID) (Navy and Army Intelligence Service) that had been established and developed as a Dutch intelligence organisation in Australia from March 1942. NEFIS continued to operate after the war and was succeeded by the Centrale Militaire Inlichtingen Dienst (CMID) (Central Military Intelligence Service) on 18 September 1948. The CMID was disbanded on 20 December 1949, immediately prior to the NEI gaining independence. 95
The MLID (NEFIS) was founded by, and initially placed under command of, Commander (later Rear Admiral) Gerlof Salm (1896-1987), Royal Netherlands Navy (RNN), with its second in command and head of Section I being a Dutch Army officer, Captain (later General) Simon Spoer (1902-1949), who assumed this appointment on 7 May 1943 and was subsequently promoted to Major on 27 May 1943 in recognition of his position. Section II of NEFIS was headed by Lieutenant Commander J.A.F.H. Douw van der Krap who would later work within the AGS, and Section III was led by Lieutenant Commander J.J. Quéré until August 1943 when he was replaced by Lieutenant Commander L. Brouwer. Salm was well known for his deeply philosophical attitude, his generally uncommunicative character, dry humour, and extreme insistence on correct behaviour. From February 1941 he was LO to the Australian Commonwealth Naval Board in Melbourne during which time he developed extensive contacts with the allied intelligence community. Salm built up the MLID with the blessing of Vice Admiral (later Admiral) Conrad Helfrich (1888-1962), Commander in Chief of Dutch Forces in the Far East (Bevelhebber Strijdkrachten Oosten) who had established his headquarters in Colombo following the Japanese invasion of the NEI. In recognition of his work and potential, Salm was promoted to Captain in February 1943 prior to assuming responsibilities as Director of the reorganised and re-named NEFIS in April 1943. Salm relinquished command of NEFIS to Major Spoer on 15 January 1944 and departed Australia on 11 February 1944 to assume command of Camp le Jeune, the barracks of the Dutch Marine Corps in the United States. After the war he returned to the Netherlands and, as a Rear Admiral, was appointed head of the Dutch Naval Intelligence Services on 27 December 1945, a position he retained until 16 December 1946. On 17 January 1947 he was sent to the NEI as Deputy Commander of the RNN in the Far East. Salm returned to Europe in July 1948 and retired from active duty on 1 December of that same year.

The Dutch were generally regarded as being ineffective in the geographical intelligence field as they produced unsatisfactory outputs that ‘did not conform to AGS standards or priorities and were of very indifferent quality’. Despite this, NEFIS had been successful in forming a small, but capable, map-making and aerial photo interpretation (PI) group that, if harnessed correctly and given the right direction, could have proved immensely valuable to the AGS. This direction was lacking as no AGS representatives had remained in Melbourne after the unit’s relocation to Brisbane.

Attempts were made, initially unsuccessfully, to bring the Dutch intelligence agency into union with the AGS and an Australian LO, Captain
(later Major) Ernest Francis (b. 1908), was attached in recognition of the priority given to maintaining an AGS presence within NEFIS. It was not until March 1943 that General Willoughby directed the Dutch and the AGS to combine into a Melbourne Detachment. On 21 March 1943, Jardine-Blake met with Captain Salm (in his capacity as Director designate of NEFIS) in Melbourne to formalise the arrangements and Captain Spoor, who would be the Assistant Director of NEFIS, was initially placed in charge of the new AGS Detachment. Nevertheless, the Melbourne Detachment proved ineffective throughout 1943, largely due to Dutch intransigence.

In early December 1943, Jardine-Blake met with Vice Admiral Helfrich and Air Force Lieutenant General Ludolph van Oyen (1889-1953), who had been appointed overall Commander of Dutch Army Forces in Australia in October 1943. During this meeting it was agreed that a complete reorganisation of the Melbourne Detachment should occur and that the NEFIS Geographical Section, including its records and files, was to be immediately transferred under direct command of the AGS and Jardine-Blake. The required coordination occurred when, on 10 December 1943, Captain Francis was promoted to Major and appointed Officer Commanding the Melbourne Detachment. Francis was a competent and highly regarded intelligence staff officer, who joined the AGS on 16 April 1943 and remained with the Melbourne Detachment until the end of the war. He brought to the Section a considerable wealth of experience gained through prior war service with the Dutch whilst a member of Sparrow Force (2/40th Infantry Battalion and 2/2nd Independent Company) in Timor. His qualities were also held in high esteem by the Dutch command. In 1946 Francis was invited by General Spoor to join his newly formed Dutch Headquarters in Indonesia but approval for this assignment was not forthcoming from Australian Army Headquarters. Instead, he was appointed Assistant Director of the post-war AGS under Lieutenant Colonel Smith, who assumed command of the Section from Jardine-Blake.103

Following Francis’ appointment to command the AGS Melbourne Detachment, Captain Salm was transferred to the United States and, on 15 January 1944, Spoor was appointed his successor as the head of NEFIS. Spoor was subsequently promoted Lieutenant Colonel (a rank commensurate with his new position) on 21 April 1944 and Colonel on 17 February 1945, retaining command of NEFIS until 19 January 1946.104 At the insistence of Admiral Helfrich, from December 1943 the AGS Melbourne Detachment became known as the AGS (NEI Detachment). The AGS (NEI Detachment) prepared studies on NEI areas and Ad Hoc Reports for ISTD (SEAC) as well as providing an interrogation centre, research and liaison and reproduction
sections. It was close to Victoria Barracks, the centre of military activity in Melbourne, and the Botanical Gardens. The gardens were often used for interviewing informants away from office interruptions.

A delay in the delivery of essential equipment and a shortage of secretarial and subordinate staff also served to hinder the Section’s early progress. However, the situation was rectified in early October 1942 when the USA made civilian secretarial assistance available to the AGS and the Australian Army provided additional service personnel. At its peak, some 25 Australian civilians were employed, primarily as secretarial staff, within the AGS; this number had reduced to 14 by 15 August 1945. For most of the war, the Section was very much living a ‘hand to mouth existence’ as far as equipment and stationery were concerned. The AGS found itself in competition with other more established agencies for essential supplies, especially technical instruments, and was forced in many instances to purchase these on the already depleted local market using Headquarters SWPA funding. This situation was alleviated in 1945 when the AGS gained full access to the USA supply network.

All this time, and amid the early turmoil, the AGS’ organisation and mission gradually evolved, and was eventually encapsulated in a third foundation document issued on behalf of MacArthur by his Chief of Staff, Major General (later Lieutenant General) Richard Sutherland (1893-1966), on 6 October 1942. This document strengthened the 19 July 1942 document and made the following provisions:

1. The Director was to be appointed by GHQ;
2. The Section was to operate under general supervision of GHQ;
3. The commanders to whom the directive was addressed were to detail to AGS for duty such qualified personnel as might be required for the execution of the AGS mission;
4. Equipment and material facilities required by the AGS were to be furnished by the appropriate commander upon the request of the Director of AGS; and
5. For security purposes, to avoid duplication, and to facilitate checking, all inquiries (involving geographic or hydrographic information initiated by the several services and addressed to civilian agencies) were to be processed through the AGS.

The directive acknowledged that the AGS’ efficiency and value to the several services would ‘depend, in large measure, upon the quality of
personnel detailed ... and the cooperation and assistance rendered by the several services'. It also made official the Section’s title and reiterated its responsibilities for the ‘preparation and distribution when required by the several services and GHQ, of comprehensive Geographic studies and special reports, and for the maintenance of adequate files, properly cross-indexed and readily accessible, of information collected incidental thereto’. 109

By October 1942, 30 terrain reports had been published, some of which were revisions of earlier ones. These were well received by operational commands and the embryonic unit quickly made its mark as the principal source of accurate and reliable geographical information in SWPA.110 By this time the AGS had also developed into a much larger organisation with many qualified people within its ranks — not only in geography, but in other fields such as geology, hydrography, meteorology, navigation, airfield construction, anthropology, engineering and military intelligence.111
CHAPTER 2

'EXPANSION TO DISSOLUTION'
(OCTOBER 1942 - JANUARY 1946)

Following the relocation of Headquarters AGS to Brisbane, the Section grew rapidly and soon occupied an entire floor of the Queen Street premises, with the later requirement for a second floor. In addition to the aforementioned Melbourne Detachment, an AGS Sydney Detachment, which at its peak comprised about 14 military and civilian personnel, was established early in 1943 in the Grace Building on York Street. The York Street premises were, at that time, under the control of the USA, although the AGS detachment remained entirely answerable to its Headquarters in Brisbane.112

The officer commanding the Sydney Detachment was Captain Norbert Mason (1897-1972). Mason had been a solicitor prior to the war and was the husband of Doris Fitton (later Dame Doris) (1897-1985), an actress who in 1930 co-founded the Independent Theatre in Sydney.113 From April 1942 he served as an IO within Headquarters New South Wales Lines of Communications Area prior to joining the AGS in Brisbane on 5 March 1943. He took command in Sydney on 26 April 1944 after spending almost seven months as AGS LO to New Guinea Force (NGF). In addition to his time in New Guinea, Mason also visited Manila for a brief period in late 1945. The Detachment included interrogation, research and liaison, and reproduction sections as well as an Advisory Medical Officer, Dr Ronald Murray, who worked in association with the University of Sydney’s School of Public Health and Tropical Medicine.114 Dr Murray had extensive clinical knowledge in the field of tropical disease and wrote, along with other medical experts, a number of service publications produced by the Commonwealth Department of Health and the School of Public Health and Tropical Medicine.115 The Sydney Detachment continued to operate until mid-1946.116

The size and activities of the AGS continued to expand throughout the war and, in September 1944, Headquarters AGS was relocated from Queen Street to the United States Camp at Victoria Park on the outskirts of Brisbane.117 It remained there until June 1945, at which time Headquarters AGS relocated to Manila with Headquarters SWPA establishing Forward Echelon AGS there. This move was conducted to support the continuing campaign in the Philippines as well as to prepare for the anticipated assault
on Japan. The former Headquarters at Brisbane became known as AGS Rear Echelon and was relocated to 225 Domain Road, South Yarra in Melbourne, alongside the AGS (NEI Detachment), with unrelated NEFIS elements still residing at South Yarra relocating to Brisbane. Major Francis was placed in command of the AGS Rear Echelon. The Dutch had erected a temporary building in the grounds of the South Yarra residence in 1943 that was also occupied by the AGS. A small detachment of approximately seven personnel remained in Brisbane until 30 November 1945, with the Rear Echelon of Headquarters SWPA in Queen Street. Sydney and Brisbane became largely service centres, with Rear Echelon Melbourne, now totalling in excess of a hundred personnel, becoming fully equipped and remaining responsible for reproduction, research and back-up to the Forward Echelon. In addition to Manila, where Headquarters Forward Echelon was located at the Santa Ana Race Track on the outskirts of the city (working in the grandstand and accommodated in tents with facilities shared with ATIS), overseas detachments were maintained by the AGS at Port Moresby, Hollandia, Biak, Tacloban and Tolosa (Leyte), housed in camps maintained by the headquarters to which they were attached.

AGS LOs were attached with Headquarters SWPA. In addition to liaison duties, the AGS LO was tasked by Willoughby with ensuring delivery, tracking and follow-up of all AGS publications for Headquarters SWPA. This was an immense task that included keeping track of all shipments from Brisbane, meeting aircraft, informing various Headquarters of the arrival of studies, and notifying of incomplete shipments in addition to forwarding information of interest to AGS Headquarters for incorporation in publications. The first LO was an Australian, Lieutenant Percy Day (b. 1904), who performed this assignment from 21 September 1944 until an accident which led to his hospitalisation on 5 October 1944. An American, Captain Wilbur Pierce was appointed his temporary replacement. Pierce was relieved on 8 October 1944 by another American, Major Edward Krieg, who held the appointment until replaced by an Australian, Major William Isaacs (b. 1909), on 21 December 1944. The post moved with Headquarters SWPA to Leyte in late December 1944 and Manila in April 1945, where it worked out of the Trade and Commerce Building at 124 Juan Luna Road, a block north of Jones Bridge. While in Manila, the LO oversaw arrangements for the subsequent establishment of Forward Echelon AGS in facilities at Santa Ana Race Track. The post was officially disbanded on 7 July 1945 following the establishment of AGS Forward Echelon which had re-located to Manila in June 1945. American officers, although often unavailable, were considered best suited as LOs due to their common nationality with staff of Headquarters SWPA.
Also, to allow the AGS LO to fully devote his attention to liaison duties, and in recognition of the importance of the distribution function, following the relocation of Headquarters SWPA to Leyte, a small Distribution Detachment was established and maintained by the AGS in forward areas from December 1944. The detachment was initially established in Hollandia under Lieutenant Day until his return to Australia on 6 February 1945. The Detachment was then led by another Australian, Lieutenant Archibald Nixon-Smith (b. 1907), who held the assignment until he was replaced by an American, Lieutenant Cornelius McCabe in early March 1945. The detachment was relocated to Biak on 28 February 1945 and later operated in Leyte and Manila. Consideration was also given to establishing a Liaison post in Saipan, although this did not eventuate.120

Of critical importance were PI tasks completed by the AGS in conjunction with attached RAAF and United States Air Force Interpretation Teams. PI teams were often assigned from commands such as USA Forces in the Far East (USAFFE) and placed under the operational control of Headquarters SWPA for duty with the AGS.121 A harmonious relationship was established between the AGS and other commands under Headquarters SWPA, with the AGS’ support of operations being of considerable value to the Sixth Army under Lieutenant General Robert Eichelberger (1886-1961) and Eighth Army commanded by Lieutenant General Walter Krueger (1881-1967), as well as the Fifth and Thirteenth Air Forces led by Lieutenant General George Kenney (1889-1977). LOs with these air forces obtained copies of the latest photographs of operational areas being scrutinised by the AGS. Relations were also established with the American Seventh Fleet Intelligence Centre, a component of Vice Admiral Thomas Kinkaid’s (1888-1972) command to which the AGS provided a great deal of valuable information. This arrangement was very much one sided as the Seventh Fleet had little, if any, information that was of immediate value to the AGS.122

Liaison, as previously alluded to, was also established with Headquarters NGF but, following the withdrawal of the main body of troops from New Guinea after the conclusion of the Salamaua/Lae offensives in September 1943, the Australian Army made few demands on the AGS until the commencement of the Borneo campaign in March 1945. Evidence does suggest that the Australian Army placed considerable demands on the AGS in the latter part of the war. For example, in April 1945 the General Staff Officer Intelligence at Headquarters 1 Australian Corps, Lieutenant Colonel Victor Schofield, MBE (b. 1917), made an urgent request for hundreds of copies of AGS products for use during forthcoming operations in Borneo. Jardine-Blake believed that the Australian services in New Guinea did not
appreciate the AGS encroaching on work that they viewed as the domain of their own intelligence staffs. The Australians, in his opinion, demonstrated their general attitude of 'disinterest' and 'non-appreciation' through the lack of feedback received.123

The continued lack of personnel provided by the Dutch led the AGS to recruit a number of Dutch and Malay speaking officers familiar with the NEI, who became responsible for the preparation of most reports on the area.124 However, some Dutch staff, including native Indonesians, were working in the AGS.125 Two particularly noteworthy and highly competent Dutch members were the aforementioned Lieutenant Commander Fritz Wissel126 and Captain (later General) Simon Spoorr27.

Wissel was a Dutch naval aviator, photographer and skilled staff officer whose association with the AGS commenced in September 1942 and continued for the remainder of the war. He was a highly regarded officer who had served since 1931 as a naval aviator with the Fleet Air Arm of the RNN. He was assigned for exploration work with the New Guinea Oil Company and was a member of the first team to reach the summit of the Carstensz Mountains of West New Guinea in December 1936. On 31 December 1936, while flying for the Company, Wissel inadvertently discovered the Paniai Lakes, which were subsequently named the Wissel Lakes until the end of Dutch occupation. He escaped the Japanese invasion of the NEI in a Dornier flying boat that was bombed in Broome (Roebuck Bay) in the early hours of 3 March 1942 and later that year became a staff officer in Headquarters SWPA and NEFIS LO to the AGS.128 In 1943, he was stationed as a Dutch LO in Darwin before being formally appointed in 1944 to work within the AGS (NEI Detachment). Wissel went to Holland as a representative of the AGS and was responsible in the latter part of 1945 for the collection and forwarding of much valuable information to the Rear Echelon for use in the revision of studies and reports.129 After the war he worked as a member of the NEFIS in Batavia (Jakarta). In 1947 he became an officer of the RNN Reserve (RNNR) and worked for the air service of the Bataafse Petroleum Maatschappij (part of the Royal Shell Group) in New Guinea before returning to the Netherlands in 1948. He resumed active service between 1949 and 1957 as a staff officer with the Fleet Air Arm of the RNN in the Netherlands. Wissel retired from naval service on 1 March 1957 and became a high school teacher.130

Spoor was an officer of the Royal Netherlands Army (RNA) who commanded the AGS Melbourne Detachment between March and December 1943 whilst he was Assistant Director of the NEFIS. He was appointed
Chief of Dutch Intelligence (NEFIS), initially as a Major, between 15 January 1944 and 19 January 1946 and was subsequently promoted Lieutenant Colonel (21 April 1944) and Colonel (17 February 1945) whilst filling that appointment. After the war he returned to Batavia where he was promoted Major General (and temporary Lieutenant General) on 19 January 1946 (made permanent Lieutenant General on 2 September 1946). On 31 January 1946 he was appointed Commander of the Army (territorial forces) to direct Dutch reoccupation forces in the NEI that at that time comprised approximately 20,000 troops. An advocate of continued Dutch governance over Indonesia, Spoor threatened to resign his appointment on 7 May 1949, when the Dutch government accepted the Roem-Rayem agreement to restore the Republic of Indonesia’s government and comply with the United Nations Security Council resolution of 28 January 1949 that demanded Indonesian independence.131 On the morning of 23 May 1949, at the age of 47, he suffered a heart attack in his office in Batavia and died two days later. (Also on 23 May 1949, Spoor was promoted to the rank of full General by the Queen of the Netherlands — a rare occurrence in the Dutch Army). His rapid rise through the ranks was attributable to the fact that the Dutch government regarded him as a dynamic young officer uninhibited by ‘old-school’ beliefs and ‘a talented modern officer, a competent organiser, one of the most able officers of his generation, who could successfully modernise the colonial army and put it on a higher level of performance’.132 Jardine-Blake held him in similar esteem when he wrote of Spoor as ‘an able and realistic intelligence operator. He [Spoor] obtained phenomenal success, ultimately, in his later assigned command of the NEI forces (1946) with the rank of Lieutenant General’.133 Spoor contributed to the completion of many AGS publications and reports on the NEI including Terrain Study No. 70, Dutch Timor (Area Study) that was published on 30 August 1943.134

The main mapping organisations operating in SWPA were those under the command of the Office of the Chief Engineer (OCE) and Directorate of Survey, Australian Army. In addition, the RAAF Cartographic Section was responsible for the 1:1,000,000 Aeronautical Series. It was this liaison between the various mapmaking organisations and the AGS that allowed existing maps to be revised and improved in advance of operations.135 In early 1944, the AGS assumed responsibility for the spelling of geographical names in the SWPA.136 This work involved close cooperation with the three mapping services to ensure uniformity of names on any map or chart being produced. This uniformity served to eliminate confusion and ambiguity that had been identified as a prevalent problem during the New Guinea campaign. The task was successfully completed, with the minor exception of the Aeronautical Series, where total uniformity proved impossible.
The general policy of the AGS was to assist wherever possible in editing maps for detail such as tracks, vegetation, swamps and coastline in conjunction with the American Engineers. AGS files were always open and available to other mapping agencies that required material for the compilation of small-scale maps in areas where photography was unavailable. The AGS held quantities of valuable material including maps, sketches, and traverses completed by oil companies, geologists, missionaries and explorers as well as air and ground photos and other reports. Copies of survey data such as trigonometrical values, survey traverses and other related information was automatically passed to mappers, and special steps were taken with informants to identify on photos the position of astro fixes and trigonometric points. Aid was also provided to survey personnel in the making of relief models. In return, these agencies provided mapping services to the AGS.\textsuperscript{137}

The most valuable informants for AGS publications were ex-administrators, patrol officers, miners, mariners, plantation owners and employees, many of whom were temporary staff at the AGS.\textsuperscript{138} The high level of skills required of its personnel were such that a priority was placed on a prospective employee's qualifications. Previous military experiences, as well as civilian and technical qualifications, were highly prized as a prerequisite to working in the Section.\textsuperscript{139} However, a lack of technically qualified personnel, especially medical, engineer, signal, transport, marine, and ordnance, impeded the full exploitation and appreciation of material being analysed and, as a result, much technical intelligence was lost. This situation improved when the attachment of an officer of the RAE (Works), Lieutenant Colonel William Routley, OBE, (b. 1900) was arranged on 18 April 1944 and, on 2 May 1945, two Officers from the Directorate of Rail and Road Transportation at Land Headquarters (LHQ), Major Harry Punter (b. 1909) and Major Arthur Herald (b. 1902), were temporarily attached. These officers produced comprehensive reports on the railway systems of Java and Japan. Major Herald joined the AGS on completion of his assignment on 24 June 1945, whereas Major Punter marched out on completion of his assignment on 8 October 1945.\textsuperscript{140} Lieutenant Colonel Routley is recorded as marching out of the AGS on 26 November 1944.

In addition to work completed on railways, the AGS also prepared information on the road networks of the Philippines and Japan. One person who assisted in this task was Russian born Sergeant Anthony Pappadopoulos (1895-1983), a former member of the ATIS who was seconded to the AGS for a brief period in mid-1945 to prepare road network information based on his pre-war knowledge as an ex-resident and motorcyclist in Japan. Pappadopoulos was a talented individual who had
studied in Russia, Turkey and Zurich, ran his own light transport manufacturing industry in Japan, and was proficient in English, French, German, Russian, Japanese and Italian. A civilian medical Research Officer, the aforementioned Dr Ronald Murray, also became available to the Section in 1943. Attempts to obtain Signals Officers, although approved in principle, were unsuccessful.\textsuperscript{141}

During 1942-43 and most of 1944, the AGS consisted largely of Australian Army personnel with some Royal Australian Navy (RAN) and RAAF members. This was mainly due to the non-availability of Americans. In fact, the initial American representation in July 1942 was only one officer and one enlisted man, with an additional officer attached in October 1942. With the exception of one Naval officer, Ensign Bertus Wabeke (a bibliographer and researcher who in civilian life worked in the Library of Congress) and an enlisted Navy Specialist, all American personnel in the AGS came from the USA (that included the US Air Force).\textsuperscript{142} The component included a number of Air Corps Officers who, like the RAAF officers, were not flying personnel and had no technical qualifications of particular relevance to the AGS task. However, as mentioned earlier, the Americans made up for their lack of allocated personnel by paying for the employment of a number of Australian civilians, primarily in secretarial roles. Australian servicewomen and American servicemen relieved these civilians as the war progressed.\textsuperscript{143} The Dutch element in the AGS was negligible throughout the war.

Even when located, the best officers were often reluctant to join the AGS as its work was largely viewed as being of a ‘secondary’ character and opportunities for promotion and advancement within the Section were limited. While all Australian Army officers in the AGS were members of the Australian Intelligence Corps, many Australian officers did not hold a rank proportionate to their scientific and professional experience and were generally older than their counterparts in the field. However, USA officers in the AGS received promotions with comparative ease. Although the number of Australians considerably exceeded Americans, at one time eight USA officers of field rank were employed in the AGS compared to just one Australian. This situation affected Australian morale and discouraged prospective officers from serving with the unit.

On 31 July 1943, three Americans and 36 Australians staffed the Section. However, at the beginning of 1944, an influx of American personnel with little or no previous military experience saw the AGS compelled to employ people whose qualifications were not entirely satisfactory. By 31 July 1944, the number of Americans in the AGS had increased to 15 compared with
84 Australians. Jardine-Blake could reject any Australian officer who appeared to lack the requisite qualifications, but he could not do this to the Americans, who had to be accepted on trust. In Jardine-Blake’s opinion ‘generally speaking, the training of United States Army personnel in the requirements of topographical intelligence appeared to be inferior to that received by members of the Australian Army’.144 Although highly qualified in their respective fields, the Americans were handicapped by a lack of military experience. Even these officers became harder to obtain from early 1945 when the AGS was compelled to accept officers whose qualifications, in previous years, would have been deemed substandard.145 As the war progressed, the Australian DMI became increasingly reluctant to assign Australians to the Section due to manpower shortages and, in Jardine-Blake’s opinion, a belief by the DMI that it was time for the Americans to contribute personnel in greater numbers and share the manning burden. By 31 July 1945, the American Services had contributed 27 officers and 50 enlisted men to the AGS, which was almost comparable to the Australian contribution of 38 Officers and 70 enlisted men at the same time. The deterioration in the standard of personnel remained a concern for the remainder of the war.146

The need for considerable numbers of subordinate and general service personnel was fully appreciated following the move to Manila, where increased workloads, combined with a demand for studies and reports on Japan, heavily taxed AGS resources. Originally, consideration was given to the selection of suitable male support staff, but this proved impractical when the AIF returned from the Middle East and redeployed to New Guinea in 1942. Jardine-Blake was reluctant to accept militia or limited service personnel because they could not serve overseas. The solution was to increase the general service component through the recruitment of the Australian Women’s Army Service (AWAS) into positions for which they were qualified. Though their service was confined to Australia, it was hoped that it might be possible for them to serve overseas if required.147 To the disappointment of the women involved, this was not to be the case, although their services by the time of the move to Manila in 1945 had become indispensable in general administration and some technical areas. Permission for service in Manila was not granted despite the AWAS having already served time in New Guinea under much worse conditions than those they would encounter in the Philippines.148 As a result, the AWAS remained the mainstay of the Rear Echelon until the AGS was disbanded. The ban on AWAS serving overseas resulted in a considerable increase of American enlisted personnel in the AGS.
The RAN paid little attention to AGS operations although, at times, it was interested in the Section’s work concerning the selection of landing points, coastal and inshore defences, and the deployment of enemy aircraft. This was because a majority of the Navy’s intelligence requirements were outside the realm of the AGS and adequately dealt with by other intelligence units. Regardless, the AGS received its first Australian Naval Officer in April 1942. From this time, with one or two exceptions, those naval personnel assigned to the AGS were not professional seamen and undertook general intelligence duties not unlike their Army colleagues. By mid-1945 eight RAN officers were employed in the Section.

Where most Naval interest emerged was in the hydrographic field. In mid-1942, Rear Admiral Sir John Crace (1887-1968), an Australian-born member of the Royal Navy and commander of the Australian Squadron (renamed Task Force 44) in the Solomon Islands and the Battle of the Coral Sea, had cause to criticise the condition of charts available to the Navy and the general lack of hydrographic information. Accordingly, in October 1942 Headquarters SWPA instructed the AGS to undertake the revision of charts and sailing directions of the Solomon Sea and New Guinea waters.\(^{19}\) This task was undertaken by the AGS with some reluctance, although two AGS Naval officers, Lieutenant Arthur Rycroft, RAN Volunteer Reserve (RANVR) (b. 1905), and Lieutenant Commander Leonard Wright, Royal Navy (retired), were initially assigned to undertake the hydrographical work of the AGS.\(^{150}\) These personnel were replaced in late-1942 by a master mariner of great experience in the Solomons and New Guinea Area, Captain Alexander Campbell, and by a senior official of the New Guinea Civil Service, The Honourable Hubert Murray, CBE (1886-1963).\(^{151}\) Both men had extensive knowledge of coastal and inshore navigation around the areas being researched. In particular, Murray had published Sailing Directions on the Territory of Papua in 1930 and possessed unparalleled knowledge of New Guinea waters by virtue of spending 29 years as captain and navigator of the government vessel.\(^{152}\) Lieutenant Commander Thomas Roberts (b. 1911), RANVR, and Captain (engineer) Willem Donk (b. 1906) of the Dutch Koninklijke Paketvaart Maatschappij (Royal Packet Company that today forms part of the P&O Nedlloyd global shipping group) also contributed to the Section’s hydrographical work. The small AGS Hydrographic Detachment worked out of the RAN Hydrographic Branch located in Sydney at 48 Milson Road, Cremorne under Commander Karl Oom (b. 1904). The Detachment’s reports appeared as Hydrographic Office publications.

The office of the Director of Naval Intelligence (DNI), RAN, under Commander Robert Long (1899-1960) proved most supportive of the AGS.
In addition to providing officers on a permanent basis, the DNI assigned, on a temporary basis, highly trained mariners with considerable technical expertise to examine harbours and naval infrastructure of interest to the AGS in its studies on the Philippines and Japan. The DNI also facilitated the establishment of liaison with the ISTD, Imperial War Cabinet and the British Pacific Fleet.

It was not until 4 January 1943 that the first RAAF officer was attached to the AGS, despite efforts by Jardine-Blake to secure one since September 1942. This officer was withdrawn after a short time because he regarded his appointment to be that of a LO and, as such, was more interested in protecting RAAF interests than constructively contributing to the overall success of the AGS. These difficulties were experienced because, at about the time the AGS was formed, the RAAF created an Objective Folder Section (OBFOL), which later merged with the Central Interpretation Unit (CIU) Allied Air Forces (AAF). OBFOL was engaged in similar activities to the AGS and, although initially confining its work to air target information, soon began to stray into the geographical intelligence field, drawing objections from the AGS. It appears that the RAAF was keen to build up its own unit rather than provide personnel to the AGS. This resulted in a duplication of effort and was in contravention of the Directive agreed to on 6 October 1942 by Air Commodore (later Air Vice Marshal) Joseph Hewitt, OBE, (1901-1985) Director of Intelligence AAF, SWPA. On 14 February 1943, Hewitt took command of No. 9 Operational Group, the RAAF’s premier strike force in the SWPA, and was succeeded as Director of Intelligence AAF by another RAAF Officer, Air Commodore Arthur Charlton, OBE (b. 1915). Unlike Hewitt, Charlton proved more receptive to the requirements of the Section and directed that a second RAAF officer be immediately attached to the AGS without ambiguity concerning his assignment. A considerable number of RAAF enlisted personnel, including Women’s Australian Auxiliary Air Forces (WAAAF), joined the AGS during 1943, mainly as photo-technicians, typists, and draftsmen. From the end of 1943, the RAAF played an important role in the work of the AGS.

With the cessation of hostilities on 15 August 1945, the dissolution of the AGS commenced. MacArthur, shortly after the war ended, had been redesignated Supreme Commander, Allied Powers (SCAP) and Commander of Headquarters, USA Forces, Pacific (AFPAC) based in Japan. SWPA as a command took some time to dissolve and non-American components of units such as the AGS remained within SWPA until their dissolution. As part of this wind-up, on 3 August 1945 a directive was given establishing a Geographical Section within AFPAC effective 15 August 1945. This was established primarily to accommodate American personnel within the AGS.
On 15 August 1945 all work ceased on non-essential publications so that the AGS could focus its efforts on studies and reports required for the occupation of Japan and the reoccupation of the NEI. Between 15 August and 20 September 1945 the AGS Forward Echelon in Manila completed a series of 15 Special Reports on Japan for Headquarters AFPAC. Concurrently, AGS Rear Echelon in Melbourne produced a series of 17 Special Reports on Java and the NEI. These were delivered to the Headquarters of the Supreme Allied Commander, South East Asia (SACSEA), Admiral Lord Louis Mountbatten.

On 21 September 1945, Chief of Staff AFPAC, Lieutenant General Richard Sutherland, advised General Thomas Blamey's Headquarters in Melbourne, that the AGS had completed its task and that it would be dissolved as an Allied body on 31 October 1945 (later extended to 30 November 1945). The formal order was issued on 1 November 1945. A similar directive was issued on 13 November 1945 calling for the discontinuance of the Geographical Section AFPAC, effective 21 November 1945, in recognition of the cessation of its work. After these dates, all AGS personnel were to revert to the command of their respective services and all equipment and stores returned to their source. Reference material in AGS files bearing upon areas south of the Philippines were returned to the Australian Army; whilst those dealing with the north went to Headquarters AFPAC. Administrative and financial records were delivered to Headquarters AFPAC and, in accordance with the financial agreement reached between the American and Australian forces on 7 May 1943, which saw the financial expenses incurred by the AGS split equally between both, steps were taken to finalise the account. On 28 January 1946 an account of expenditures was submitted by MacArthur's Headquarters to Headquarters AMF showing that the AGS had cost US$464,526.38 and requesting reimbursement of half that amount. There existed at this time one outstanding financial matter. This was the fate of the balance of stores and equipment which had been purchased by the Americans yet remained in Australia when the war ended. This was settled on 25 April 1946 when Jardine-Blake signed an agreement with Headquarters AFPAC that saw the equipment transferred to the AGS in Australia pending the final and more general settlement of equipment accounts between the American and Australian forces.

Immediate measures commenced to redeploy the personnel of the AGS Forward Echelon, Manila. By 15 October 1945 all Australians, except for Captain Ian Forbes (b. 1909) who remained in Manila until 3 November 1945 as LO to Headquarters AFPAC, were bound for Melbourne where the Australian component of the AGS was being consolidated. Forbes arrived
back in Australia on 8 November 1945. Most American and Dutch personnel had been redeployed or were heading home. The Australian Defence Department had decided that, following its disbandment, the functions of the AGS would continue as a component of the post-war army. This marked the end of the AGS as an inter-service, inter-allied organisation.
PLATE 1

AGS colour patch
(Source: Mr L. H. Modistach)

PLATE 2

Headquarters SWPA (GHQ) colour patch
(Source: www.ozatwar.com)
Organisational Chart G-2, SWPA, May-September 1942
(Source: MacArthur Memorial Library, Norfolk, Virginia)
Organisational Chart, Allied Geographical Section
AGS Final Progress Report, 15 September 1945
(Source: MacArthur Memorial Library, Norfolk, Virginia)
## PLATE 5

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<td>Civilians</td>
<td>12</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>103</td>
<td>197</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td>300</td>
</tr>
</tbody>
</table>

**Ranks of Officers:**

<table>
<thead>
<tr>
<th></th>
<th>Aust Army</th>
<th>RAAF</th>
<th>U.S. Army</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Colonel</td>
<td>1</td>
<td>1 W/Cmdr.</td>
<td>1 Colonel</td>
</tr>
<tr>
<td>1 Lt. Colonel</td>
<td>1 S/Ldr.</td>
<td>2 Lt. Colonels</td>
<td></td>
</tr>
<tr>
<td>3 Majors</td>
<td>4 F/Lts</td>
<td>7 Majors</td>
<td></td>
</tr>
<tr>
<td>13 Captains</td>
<td>4 F.O./P.O.</td>
<td>16 Captains</td>
<td></td>
</tr>
<tr>
<td>6 Lieutenants</td>
<td></td>
<td>15 1st Lieutenants</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** The above figures made no provision for camp personnel with exception of MT Drivers.

**Consolidated Table of Organisation, 15 August 1945**

(Source: Brief History, Appendix III, page 1)
Colonel W.V. Jardine-Blake
Director AGS: August 1942 - June 1946
(Source: Brief History)
THE UNITED STATES OF AMERICA

TO ALL WHO SHALL SEE THESE PRESENTS, GREETING:

THIS IS TO CERTIFY THAT
THE PRESIDENT OF THE UNITED STATES OF AMERICA
IN ACCORDANCE WITH THE ORDER ISSUED BY GENERAL
GEORGE WASHINGTON AT HEADQUARTERS, NEWBURGH,
NEW YORK, ON AUGUST 7, 1782, AND PURSUANT TO ACT
OF CONGRESS, HAS AWARDED THE

LEGION OF MERIT
Degree of Officer

TO
Lieutenant Colonel William Vere Jardine-Blake, Australian Imperial Forces

FOR EXTRAORDINARY FIDELITY AND EXCEPTIONALLY
MERITORIOUS CONDUCT IN THE PERFORMANCE OF
OUTSTANDING SERVICE

GIVEN UNDER MY HAND IN THE CITY OF WASHINGTON
THIS 18th DAY OF AUGUST 1944

Legion of Merit, Degree of Officer, awarded to Colonel W.V. Jardine-Blake
18 August 1944 (Gazetted 10 April 1947)
(Source: Mr D. Helfgott, North Bondi, New South Wales)
Major General C.A. Willoughby
General Douglas MacArthur’s Intelligence Chief
(Source: MacArthur Memorial Library, Norfolk, Virginia)
Colonel E. Mander-Jones
Director AGS: July 1942
(Photo dated 31 January 1946; Source: Australian War Memorial Neg. 123945)

General S.H. Spoor
OC AGS Melbourne Detachment: March-December 1943
Director NEFIS: January 1944 - January 1946
(Source: Institute for Military History, Royal Dutch Army)
Commander (later Rear-Admiral) G.B. Salm
Director NEFIS: March 1942 – January 1944
(Source: Institute for Maritime History, Royal Netherlands Navy)

Staff Sergeant A.G. Ewens (Administration)
at AGS Detachment, New Guinea Force, Port Moresby, 1 April 1944
(Source: Australian War Memorial Neg. 100836)
Lieutenant (later Captain) F.E. Williams (right), later a prominent member of the AGS, during service with Dunsterforce, Persia during the First World War (Source: Australian War Memorial Neg. J01292)

Lieutenant (later Captain) J.S. Cumpston, son of the first Director General of Public Health of the Commonwealth standing outside HQ 2/48th Australian Infantry Battalion in Tobruk, Libya during the Second World War (Source: Australian War Memorial Neg. 020118)
The Brisbane Permanent Building and Banking Company Building
115 Queen Street, Brisbane – AGS Headquarters was initially accommodated on the fourth floor (Photo taken in 1934) (Source: A.N. Murrell, The First One Hundred and Ten Years: Bank of Queensland, 1874-1987)

Group photo of AGS members in Melbourne, August 1945
(Source: AGS Souvenir Book, p. 57)
Exterior of the premises at 225 Domain Road, South Yarra, Melbourne where the AGS (NEI Detachment) and later HQ AGS were housed (Photo: 18 September 1945 - Australian War Memorial Neg. 100838)

Group photo of AGS members in the grounds of Section Headquarters at 225 Domain Road, South Yarra, Melbourne, September 1945 (Photo: 18 September 1945 - Australian War Memorial Neg. 100836)
Group photo of AGS members in Brisbane, April 1945
(Source: Brief History)
HQ Forward Echelon ACS at Santa Ana Race Track, Manila

(Sources: History)
CHAPTER 3

'THE UNIT AT WORK'
HOW THE AGS FUNCTIONED

From September 1942 the AGS put into operation a complex and efficient production system. By 15 September 1945, it had evolved into a highly proficient geographical intelligence agency comprising nine sections, ten sub-sections and headquarter elements, each with a critical role to play in enabling it to perform its vital work. Of particular note were:

- The Informants' Sub-Section, which prepared lists of informants and arranged interviews;
- The Research Sub-Section, which combed libraries for suitable material and arranged for translation, if necessary;
- The Photographic Sub-Section, which procured all available ground and aerial photography;
- The Records and Drafting Sub-Sections, which recorded correspondence, filed records and produced or acquired maps and charts;¹⁵⁹
- The IOs' Sub-Section, that worked to prepare AGS publications and correct maps and photos;
- The Engineer Sub-Section, which provided technical advice to IOs, and performed the interrogation of special informants and liaison with engineer services;
- The Geographical Names Sub-Section, that dealt with policy on, and coordination and standardisation of, geographical names;
- The Special Information Sub-Section, dealing with advisory officers such as medical, geological, hydrographic, transportation and signals communications as well as information on airfields and enemy dispositions;
- The Amphibious Sub-Section, dealing with landing beach information;¹⁶⁰ and
The Editorial Section, which worked to make the reports intelligible to a large clientele, a difficult task given the different nationalities and services involved. Each of these nationalities used varying forms of expression and, although English was the common spoken language, it took time to develop an appreciation of the wide variation between formal and informal speech and the technical military terminology of the Australians, Dutch and Americans. The need to convey an identical message to all nationalities kept the Editorial Section in 'a constant state of uneasiness'. An essential part of the editorial process was a geographical check to verify coordinates, grid references and scales, as well as the spelling of toponyms.\(^{161}\)

Where applicable, each study or report would pass through these sections which, in turn, would conduct the relevant checks and provide supplementary material such as maps and photographs. On completion of the editorial check, all reports were passed to Jardine-Blake, or his Second in Command, for final approval prior to release for publication and subsequent distribution to the combat forces.\(^{162}\) Life as a member of the AGS was hectic and involved working long days and irregular hours.\(^{163}\)

At its most senior levels the command responsibilities of the AGS were clearly defined. The Director concentrated on policy development, overall administration of the Section, and expansion of the informants' register. It was also the Director's role to oversee preparation of the *Annotated Bibliography of the Southwest Pacific Area*. The Assistant Director, on the other hand, assumed full responsibility for the technical workings of the Section and supervised in detail the production of publications and reports.\(^{164}\) An American Officer, Lieutenant Colonel Claude Fertig, was appointed as Executive Officer in 1944 to represent American interests. In addition, three main types of personnel served within the AGS:

- IOs;
- scientific, technical and research personnel; and
- general service personnel including administrative and secretarial staffs.

The mainstay of the AGS workforce was its IOs (refer Appendix 2) who were employed to interview informants, research localities, draft the studies and reports and ensure the quality of the final output. Responsibility for the compilation of each AGS report and study was delegated to an IO. This officer consulted with the supervisory staff of the AGS to determine the best method and those variations from the 'standard table' that would achieve the best results. IOs were assigned one area to study for as long as possible
to capitalise on experience and knowledge gained. This officer probably knew more about the area being researched than anyone else in the world at that time. According to the AGS Souvenir Book, of the 293 names listed as comprising the Forward and Rear Echelons in September 1945, there were no fewer than 70 IOs, ranging in rank from Corporal to Lieutenant Colonel or equivalent, and some were civilians. They came from all walks of life and had a wide range of expertise. In addition to the many personalities already described, some IOs were like Major N. Mace, who brought to the Section considerable experience gained as a British Army officer in Sarawak. Major Robert Williams of the USA had a background with the Honolulu Oil Corporation, while Mr H.A. Miller had worked for the Department of the Interior, Canberra, before the war. Others like Captain (later Dr) John Stanley Cumpston (1909-1986), the son of the first Director General of Public Health of the Commonwealth, and Lieutenant Lindsay Modistach (b. 1919), had seen active service in North Africa and the Middle East before joining the AGS. Cumpston, a veteran of Tobruk, had also worked for the Department of External Affairs.

It was practice to make best use of the experience and training of an individual IO. For example, Locality Study No. 21, Central Dutch New Guinea (sub-division Wissel Lakes) that was later superseded by Terrain Study No. 68, was logically assigned to Lieutenant Commander Wissel, after whom the Wissel Lakes were named. The responsibility for compiling specialist studies was passed to respective experts. For example, Special Report No. 2, Jungle in Relation to Military Operations (September 1942), designed to prepare allied forces for operations in New Guinea, was written by Mr Richard Hardwick. Mr Hardwick was well qualified to prepare this report by virtue of his 38 years' experience as a professional hunter, district officer and surveyor in the jungles of Dutch North Borneo where conditions were regarded as being similar to those in New Guinea. Other IOs like Lieutenant Arthur Rycroft, RANVR, who had been an officer in the British Shell Petroleum Company in Hong Kong prior to the war, specialised in the preparation of reports on coastal and beach features in target areas. It was the opinion of Major Reid (Assistant Director of the AGS until July 1943) that Rycroft 'had a keen analytical brain and an immense capacity for work ... [and that he] contributed — in both quantity and quality of work — far more than any other officer' during Reid's time with the Section. Another notable personality within the ranks of AGS IOs was Sergeant (later Major in the Citizens Military Forces (CMF)) Eric (later Sir Eric) Willis (1922-1999), who would later become the 21st premier of New South Wales.
IOs were generally required to possess at least two of the following qualifications to be suitable for service within the AGS:

- Sound academic qualifications including a degree;
- Military intelligence training with combat experience preferred; and
- Prior residence or service in a civil or military capacity in areas of interest to the AGS.

Priority was given to criterion two, military experience, as it was appreciated that having a credible and experienced staff would prove critical in winning the confidence and cooperation of deployed forces. It was for this reason that personnel with previous combat experience were highly sought after by the AGS. Initially, selected officers from forward areas were to be detached for service with the AGS for periods of up to six months. However, when this proved impractical, the AGS initiated a commissioning scheme whereby selected non-commissioned officers were attached from combat units on a six month trial basis after which, and if remaining suitable, they attended an officer training course, graduating as IOs. Although a number of AGS officers rose from the ranks, it appears that only two AGS members who entered the Section in February and March 1944 for this purpose, Staff Sergeant George Hansford (b. 1916) from the 1st Australian Army and Sergeant Lindsay Modistach from the 2/9th Armoured Cavalry Regiment, ever undertook the scheme. Of the pair, only Modistach was commissioned.\(^{169}\)

The Section also boasted a noteworthy array of supporting staff whose job it was to assist the IO in the completion of his work. These support staff, not unlike the IOs, also boasted impressive resumés. One was Mrs Harriet Ponder who worked in the AGS Research Sub-Section and with the AGS (NEI Detachment) as an English/Dutch translator. Ponder was a well-regarded author who had written extensively on the island of Java based on her experiences living there.\(^{170}\) Among her best known works were *Java pageant* (1935)\(^{171}\) that was published in two editions, and *Clara Butt, her life-story* (1928),\(^{172}\) a biography of the soprano Dame Clara Butt (1872-1936). Another was Dr Gottfried Locher (1908-1997) who was the NEI Government Anthropologist and would later become Professor at Leiden University in the Netherlands between 1954 and 1973. The Advisory Geologist to the AGS was Dr Arthur Wade (1878-1951). Wade had been engaged by the Australian Government to survey the Papuan region of New Guinea in 1913 and had worked extensively in the Kimberley Ranges of Western Australia in the 1930s where he collected a mineral that was later named ‘Wadeite’ after him.\(^{173}\)
Non-commissioned members of the AGS were also selected to serve in the Section where their unique qualifications were well utilised. For example, well-known illustrators were employed in mapmaking roles. Two noteworthy AGS illustrators that worked on maps within the AGS Drafting Sub-Section were Warrant Officer Class 2 Ron Laskie (b. 1918), well known for his cover illustrations for the *Australian Women’s Weekly*, and Sergeant Albert Smith (b. 1920), illustrator for the *Smith’s Weekly*. After the war Laskie worked for Australian Consolidated Press and continued to illustrate the *Women’s Weekly* among other publications. Smith, on the other hand, worked for the *Sydney Morning Herald, Financial Review* and *Sun-Herald* for many years and later ran the art department for the Fairfax Corporation. Although the Drafting Sub-Section was primarily staffed by Australians, some USA and RAAF personnel also participated in its work.

As the SWPA campaign progressed, the tempo and sense of urgency within the AGS also increased and a number of officers with technical training and experience in areas such as landing beaches, airfields, offshore hydrography, medicine and engineering were called upon for expert advice. The IO relied on these experts for all manner of technical advice, although the main detail in any study was gained from information derived from a wide variety of sources. There were three main categories of information used by the AGS when preparing its work. These were:

- Pre-war printed information within Australia and overseas;
- Information from local informants such as ex-residents, missionaries, planters and patrol officers; and
- Information gained from the various armed services intelligence files.

In each case the information was either available in Australia after considerable research or only available from foreign intelligence organisations. AGS LOs, working with neighbouring commands and other overseas intelligence agencies, were to play a key role in obtaining information that was unavailable to the AGS in Australia.

Mapping was a major component of AGS studies and presented constant challenges for IOs when compiling their work. As previously described, SWPA was largely unexplored, uncharted and unmapped. Existing maps were often old and of German origin dating from the late nineteenth century. These were obviously outdated and of minimal value to the AGS without substantial revision. However, the AGS found Australia to be a virtual
storehouse of valuable information on the SWPA. David Mellor, an Australian official war historian, summed up the position in early 1942:

The framework for [AGS] topographical reports consisted of a series of rather indifferent maps compiled from government surveys and traverses by patrolling officers of the Civil Administrations, exploratory surveys by oil search companies, and sketches by missionaries. Hydrographic charts were also used but were in general quite faulty both as to depiction of land masses and offshore information. In addition there were available many valuable reports of a geological and anthropological nature. No attempt had been made by military intelligence to collect this information, which was widely scattered throughout Australia in repositories of every conceivable nature.179

The universities, scientific and cultural organisations, commercial undertakings (including banking, insurance, shipping, mining, and oil firms) and other institutions, all played a role in intelligence gathering.180 For instance, certain Australian institutions, like the Mitchell Library in Sydney, had prior to 1910 collected material of scientific and cultural interest on the SWPA. Not only this, but following the enforced evacuation of the SWPA from December 1941, large numbers of Europeans, and other non-Australians including planters, businessmen and civil servants had fled to Australia bringing with them a wealth of information. The knowledge of these people was widely tapped and proved an invaluable source of intelligence to AGS IOs.

Because of the pressures associated with the immense task of harvesting all existing information in Australia, an AGS Research Sub-Section was established. Due to manpower shortages and a lack of suitably qualified military personnel, this task was initially assigned to civilian volunteers from universities and libraries across Australia, eager to play a part in the war effort.181 An example of the type of volunteer seconded to this work was Professor Martin Glaessner (1906-1989) who worked within the AGS Research Sub-Section on mineral resource studies between 1942 and 1945. Glaessner was an Austrian-born geologist and palaeontologist who had graduated from the University of Vienna in 1931 where he was a lecturer in Economic Geology. He was employed extensively in oil exploration throughout Europe, Russia, and the Middle East before becoming a geologist to the Anglo-Iranian Oil Company and later chief palaeontologist for the Australasian Petroleum Company in Port Moresby, a position he retained until 1950 when he migrated to Australia.182
Two civilian research officers from the University of Sydney were recruited to assist in the coordination of the civilian volunteers who it was originally envisaged would participate in all AGS research projects by forming study groups. However, it proved difficult to control civilians, in particular to maintain security and impress upon them the military requirement for expediency. Nevertheless, the volunteers significantly contributed to the preparation of the AGS' best known publication, the four volume *Annotated Bibliography of South West Pacific and Adjacent Areas*, which was a list of publications in Australian libraries with relevance to the SWPA. In total, over seventy institutions assisted the AGS in this work. Additionally, civilians proved useful for gaining cooperation from non-military agencies which were often reluctant to be associated with military staffs.

The Research Sub-Section acted as a link between intelligence agencies and various scientific and government bodies. It examined and annotated the material received from AGS LOs abroad and ensured that IOs were kept abreast of new acquisitions from such sources. An important function was the reading, annotation and selective translation of foreign language material, primarily Dutch. A number of translators highly trained in the task of identifying documents of military significance were employed for this purpose.

The first essential element to the successful preparation of an AGS report was wide reading by the IO assigned responsibility for its compilation. This was generally conducted in the AGS library which was a sub-section of the AGS Research Sub-Section run by RAAF Squadron Leader Frederick Thompson (b. 1890) from late 1943. Obtaining maps to support this research was equally important. These maps were either produced internally by the AGS Drafting Sub-Section or obtained from outside agencies. PI, conducted by IOs in consultation with the AGS Photographic Sub-Section run by an American, Major H.F. Hauser, was an essential element. A former IO, Lieutenant Lindsay Modistach, who served with the AGS in Brisbane during 1944 and with the Advanced Echelon in Manila in 1945, recalled the painstakingly meticulous vetting and crosschecking of information that was conducted when preparing a study, with the best results being obtained from aerial photographs when studied in conjunction with other sources of intelligence. Among many studies and reports, Modistach worked on Terrain Studies dealing with the Kai and Tanimbar Island areas in 1944 and *Terrain Handbook No. 41, Manila City (Philippine Series)*, 6 December 1944. He was well aware of the importance of his work through first hand experience with ground commanders in North Africa prior to joining the AGS. The job of an IO was a thankless one. Modistach attests that he,
like many former AGS members, could not recall ever receiving any feedback from the combat forces on his work. This often led him to question whether his work was ever used.¹⁸⁷

Informants, who formed the basis for much of the early work of the AGS, were interviewed and shown aerial photographs or maps to refresh their memories.¹⁸⁸ The reliability of the information provided could then be checked by close examination of photographs of the locality upon which an informant was reporting.¹⁸⁹ Photographs were collected and analysed from all over the SWPA for any possible use in AGS reports. Many of these were pre-war and from private albums. A former AWAS member employed within the AGS Research Sub-Section, Sergeant Dorothy Berchley (née Irving) (b. 1920), attests to this, recalling the study of a photograph of a mother and child standing on a bridge in a locality of interest to the AGS. The AGS ignored the figures and analysed the bridge and surrounding terrain.¹⁹⁰

Jardine-Blake wrote that ‘the value of an informant as a source of information is in direct proportion to the intelligence displayed by the officer who interrogates him’.¹⁹¹ The best informants proved to be persons with a professional background who had been trained in the preparation of factual reports and had some understanding of military matters. It was also found, especially in New Guinea, that natives could provide valuable information if questioned by a skilled IO. However, gaining information from the natives caused many problems for the Section in its early days, as it proved time consuming and taxed limited AGS resources. It was important that IOs were highly trained, as a forceful yet unreliable informant could lead an inexperienced IO astray. One of the greatest values of an informant was that, although he or she might know little of an area of interest, they could name other possible informants who might provide better information. To this end, the AGS Informants’ Sub-Section maintained a contact register containing the names of over ten thousand informants with knowledge of the occupied areas of SWPA.¹⁹² Reliable informants proved incredibly scarce in New Guinea, although in more developed areas such as the Philippines, Java, and Japan, information was easier to come by, as there were already good maps and charts. In this case informants were used to confirm and correct intelligence.¹⁹³

The AGS IOs also used intelligence agencies and information derived from branches of the armed services when compiling their studies. For example, the RAAF Meterological Service prepared all AGS meterological information and an excellent relationship was maintained with this Service. However, it is important to note that Jardine-Blake regarded cooperation with many of the intelligence organisations engaged in clandestine
operations, in particular the AIB and Far Eastern Liaison Office (FELO), to have been unsatisfactory throughout the war.194 These organisations, operating in areas under Japanese occupation, could have been of considerable use to the AGS, but were often uncooperative due to security concerns and a desire to protect their operatives. Having said this, evidence suggests that some cooperation did exist. Individual members of these organisations returning to Australia were frequently of assistance, although the information they provided was in many cases based upon their pre-war, rather than wartime, experiences.195 Members of the Krait Force provided information on Singapore to the AGS. The Krait Force comprised a team of six Australian Special Operations personnel who raided Singapore Harbour on 26 September 1943. They placed limpet mines on several merchant ships anchored in the Harbour and escaped undetected. Seven ships were sunk; a total tonnage of 35,000 tons. The Krait returned safely to Australia on 19 October 1943.196 Another example was information provided by Sparrow Force, the 2/40th Infantry Battalion and 2/2nd Independent Company of Australian Commandos that tied down the Japanese in Timor until ordered to withdraw on 16 December 1942. It was during one such interview that Lieutenant Vida Turton (née Frazer) (b. 1914), Adjutant of the AWAS contingent in AGS, met her husband Captain (later Major) Donald Turton (b. 1918), who was at the time a member of the returning 2/2nd Commando Company.197 The information gained from Sparrow Force allowed the AGS to produce in 1943 the most detailed map to date of Portuguese Timor.198 There is also evidence of liaison between the AGS and Military Intelligence Section X (MIS-X) on relevant matters. MIS-X was a branch of the Military Intelligence Section (MIS) established in August 1943 to actively aid, in conjunction with other agencies, in the recovery of allied prisoners of war by collecting, collating and discriminating relevant intelligence and statistical data. It was also responsible for providing information and training in survival, escape and evasion techniques to allied personnel should they become separated from units or captured by the enemy.199

MacArthur’s Headquarters encouraged the exchange of information between its subordinate units, especially between its theatre intelligence agencies. For instance, the AIB, ATIS and CIU regularly provided intelligence to the AGS. An example of this interaction was the provision of AIB ‘march tables’ that allowed the AGS to provide planning staffs with accurate information regarding how long it would take troops on foot to get from one point to another.200 The ATIS provided AGS information from captured documents and the interrogation of Japanese prisoners, although by its nature such information required careful checking. Also, ATIS officers like
Captain Frank Thomas (b. 1894) were occasionally attached to the AGS as were officers from other agencies. The CIU and the AGS largely complemented one another. Until Headquarters SWPA relocated to the Philippines, the two were interlinked and each shared the other's files. NEFIS also made some information available, as did the RAAF Meteorological Service. Prior to December 1943, when full incorporation of the NEFIS mapping agencies into the AGS occurred, relevant sketches and maps produced by NEFIS were included in AGS studies and reports. Terrain Study No. 45, Ambon (Area Study), 13 January 1943, with revisions and amendments dated 31 October 1943, provides but one example of inter-agency information exchanges. Map 13 in the Study, one of many produced by NEFIS, is a sketch of the notorious Tan Toey Prisoner of War Camp on the island of Ambon. Tan Toey housed, among other allied prisoners, members of Gull Force, the Australian 2/21st Infantry Battalion and its supporting units, captured and detained by the Japanese between February 1942 and their liberation in August 1945. The camp was originally built by the Dutch and had been used by Australians during the defence of Ambon. The sketch map, dated 13 March 1943, depicts the situation and developments in the camp since 28 March 1942 by using information obtained from a bombing mission on 15 February 1943 and a series of photographs taken over previous months. The detail of the sketch is incredible and notations include the purpose and use of various structures, materials used in construction, defensive locations, and it even depicts the location of a lone cherry tree planted at the camp. The information would have been valuable for air targeting and future ground operations.

The AGS reciprocated the exchange of information to these agencies. It regularly gained valuable information through liaison visits outside Australia of interest to other agencies, such as the American Engineers. Further, it made its resources (including archives) available for use by other interested bodies. By war's end, the AGS was establishing the framework for information exchanges with intelligence agencies in other theatres. In May 1945, AGS representatives attended a conference in Hawaii on mapping and topographical intelligence concerning Japan. During this meeting an agreement was reached between representatives of the Commander in Chief Pacific Ocean Areas (CINCPOA) and the AGS over the handling of geographical intelligence in the event that it proved necessary to invade the home islands of Japan. It was decided that the AGS would concentrate on Japan's geography, while the Joint Intelligence Centre Pacific Ocean Area (JICPOA), the Pacific counterpart of Willoughby's Intelligence organisation, would concentrate on the approaches to Japan. As complete agreement could not be reached on landing beaches, it was decided that both
headquarters would cover this aspect. A tentative agreement was also reached regarding future personnel exchanges between JICPOA and the AGS. The possibility of allowing for the complete interchange of material, and for JICPOA and the AGS to quote each other’s studies at ‘appropriate places in the text and perhaps on the frontispieces’, was also discussed. Although the war ended before any arrangement could be finalised, this constituted a significant step towards setting aside the petty rivalries that divided the common interests of both theatres.  

Liaison with units in the field proved unsatisfactory. This was mainly due to a lack of appreciation of the AGS role by field intelligence staffs. There was a lack of feedback from forward areas, which made it difficult for the AGS to assess how effectively it was meeting its mission in fulfilling the requirements of combat troops. As the nature of the AGS’ work was pre-operational, reports by field forces were of minimal value to the Section because, by the time ground forces had landed, the AGS had redirected its efforts elsewhere. However, though constantly sought by the AGS to check against its work, reports were seldom if ever received. Staff experience outside a training environment was limited as efforts made to attach AGS officers to operational units failed.  

The early medical component of the AGS publications often proved inadequate and drew criticism from operational staffs. This was primarily attributable to the fact that medical branches of the armed forces refused to attach suitable staff to prepare these segments. However, from 1943 the Director General of Public Health of the Commonwealth, Dr J.H.L. (John) Cumpston (1880-1954), arranged for the facilities of the School of Public Health and Tropical Medicine within the University of Sydney to be placed at the disposal of the AGS. Thereafter, the School prepared the medical sections of all reports, and this proved a satisfactory arrangement. The medical work of the AGS eventually drew the attention of the armed services and, in July 1945, the Director General of Medical Services, RAAF, Air Vice Marshal Sir Thomas Hurley (1888-1958) discussed with Jardine-Blake the possibility of creating an inter-service Medical Intelligence Section within the AGS. However, the war ended before this proposal could be acted upon.  

Although it was appreciated that the AGS would have to acquire intelligence from sources across the globe, it was not until early 1943 that it was in a position to seek information from outside Australia. Efforts were made to establish contact with related intelligence agencies in the United States, India, and the United Kingdom. Jardine-Blake believed that contact and the exchange of personnel between all major geographical intelligence
organisations was of critical importance. However, due to the preoccupation of such agencies with their own work, liaison proved largely unsatisfactory.

The only truly successful AGS liaison post was created in Washington where an AGS representative was initially appointed on a temporary basis in September 1943. The post was permanently maintained in The Pentagon, room 20681, from February 1944 and became an invaluable source of information, especially on the Philippines and Japan, for the remainder of the war. Willoughby attested to this fact on 27 July 1944 when he wrote to his Executive Officer, Colonel Charles McVittie, stating clearly the value of the AGS’ LO to Washington. He refers to a discovery of negatives which ‘afford a good example of the necessity of keeping [a LO] there’. The negatives were of the Aparri area but also covered important stretches of coastline in parts of Cagayan, Ilocos Norte and Ilocos Sur. They were buried in the Historical Film Library of the Air Force and ‘their existence had been lost track of by the other agencies in Washington. This is but one of a number of similar situations that have been unearthed ...’. Willoughby regarded these LOs as being his ‘spies’ in Washington.

Not unlike a majority of AGS officers, the Section’s LOs to Washington were highly capable officers. For example, the first LO was Captain (later Major) John Russell of the American Air Corps. Russell’s civilian employment was as Assistant to the President of Harvard University and Member of the Faculty. He commenced work with the AGS on 16 October 1942 as LO to the AAF and officer in charge of production of AGS studies. In January 1943, Russell was responsible for the organisation of the AGS Research Sub-Section ‘devoted to a search for and collection of background source materials in Australia for the preparation of tactical studies on the SWPA’. From 13 September 1943 to 13 January 1944, he was sent to the United States and United Kingdom on temporary duty in an effort to expand the search for material of relevance to the AGS. Whilst in England, Russell visited the ISTD at Oxford, the AGS equivalent in the European Theatre, in ‘connection with work being conducted by ISTD of interest to SWPA’. During this time he liaised with various military and university authorities, prepared a survey of sources for the AGS and collected background research material for tactical studies.

In Washington, more than 20 separate agencies were engaged in geographical intelligence work in a largely uncoordinated manner, with much duplication of effort and varying quality of output. On 17 February 1944, Jardine-Blake wrote to Willoughby of the situation:
Major Russell has succeeded in presenting a most informative picture of the intelligence organisations in Washington. In some respects, however, it is a disappointing picture. The scope and evidence of the Washington organisations are evident but the apparent lack of central authority to regulate and coordinate the multifarious activities of the many organisations is disturbing to one familiar with the well regulated and coordinated intelligence organisations of the [SWPA].

He concluded that, in the absence of such coordination, a permanent AGS LO in Washington was required not only to procure the maximum services available there but also:

- to protect the interests of [SWPA] by keeping the various organisations in Washington posted as to the work in progress by AGS and to prevent or reduce unnecessary duplication of effort.\(^{211}\)

Russell held the appointment of AGS LO in Washington until 2 January 1945, when he was relieved by a USA officer, Major Wilbur Pierce. Pierce held this position until replaced by Lieutenant Colonel John Tobin, who had, previous to this time, headed the AGS Amphibious Sub-Section working on landing beaches. Lieutenant Colonel Tobin was appointed as the last AGS LO to Washington, on 7 August 1945.\(^{212}\)

It was because of the lack of ‘coordination’, among other problems inherent in the various Washington based intelligence agencies, that the AGS constantly sought out original material and was reluctant to utilise information gained until it was carefully checked. However, the cooperation of the various agencies was forthcoming and valuable information was provided on a reciprocal basis. Two examples, among many of the successes of this reciprocal exchange, are letters of gratitude addressed to the LO in Washington thanking the AGS for its assistance. On 18 July 1945 Commander Leland Jordan, USN (Retired), the Aide to the Hydrographer in the Hydrographic Office, Washington, wrote to Lieutenant Colonel Tobin regarding the incorrect height of rocks in some of their charts that had been rectified through the use of AGS information. Another letter dated 5 August 1945 was received from Colonel Gerald Galloway (Chief Engineer) on behalf of Headquarters 3rd Special Brigade. This note contained thanks for the Terrain Handbooks provided by the AGS which the Colonel said they would be ‘able to make good use of’. It was Tobin’s sound belief that other units would still require AGS Handbooks even though the ‘shooting war [was]
over'. Without such liaison in Washington, the AGS would have found it impossible to get certain material, especially on the Philippines.

Contact was also established with the United Kingdom through the ISTD at Oxford, but permanent liaison proved impossible. Jardine-Blake blamed the failure to establish a successful liaison post with ISTD on Headquarters SWPA saying that 'unfortunately permission could not be gained from [Headquarters SWPA], under whom the AGS worked, to place an AGS representative in London'. Nevertheless, ISTD responded to many requests from AGS, although it was naturally preoccupied with the European theatre. Permanent liaison with ISTD’s detachment in SEAC, based in New Delhi and later Kandy, Ceylon, and Singapore, also proved impossible. However, informal contact was maintained between the directors of the two agencies from early 1943. This less formal arrangement could not have worked in Washington as, in Jardine-Blake’s opinion, the same lack of coordination did not exist in ISTD. Communication by mail proved clearly inferior to an exchange of officers, but the AGS carried out a considerable amount of work and supplied a great deal of information through Ad Hoc Reports and microfilms to the SEAC agency, which occasionally sent two officers, Captain Shaw and Captain J.D. Lamb, to the AGS on short visits. In July 1945 a conference was held between Jardine-Blake and Major General (later Lieutenant General) William Penney (1896-1964), Director of Intelligence SACSEA, where it was agreed that ISTD personnel tasked with work related to the NEI would be transferred to Rear Echelon AGS in Melbourne. The war ended before this could occur.

When SEAC assumed responsibility for the western part of the SWPA, the AGS provided information to the occupation forces and SEAC depended upon various AGS reports. From early 1943 SEAC began informally requesting information from the AGS on areas of the NEI. In July 1943, ISTD made a formal request to the Australian DNI and DMI for this information and AGS was tasked with its provision. Three AGS personnel, accompanied by a RAN officer attached by the DNI, and an Army officer attached by the DMI (both later permanently assigned to the AGS), worked on these reports. However, AGS involvement in this work for another theatre was resented by Headquarters SWPA who believed that the Section should only be tasked within its sphere of interest. Because of this objection, Americans were not permitted to assist in the work. However, very little information was provided by ISTD (SEAC) to the AGS. Attempts to appoint an AGS LO with South Pacific Command (SOUPAC) also failed. Again, Jardine-Blake blamed the failure of the AGS liaison attempts with other theatres on Headquarters SWPA and the counterproductive and competitive politics
existing between the various headquarters involved. This is not surprising given the well-known rivalry that existed between Admiral Nimitz, CINCPAC, and MacArthur. In Jardine-Blake’s opinion, valuable liaison could have been easily established had the command chain consented; because it did not consent valuable information was lost. However, in addition to revising its own organisational structure, the AGS used the period of relative calm between the conclusion of the Papuan Campaign that culminated with the successful re-capture of Buna on 23 January 1943, and the commencement of the New Guinea offensives on Salamaua and Lae which commenced in April 1943, to prepare reports on the Solomons Area. This work continued, even after the Solomon Islands became a part of SOUPAC following their recapture in January 1943.

Contact was also established with the Imperial War Cabinet in London. This proved helpful in obtaining information not available through other sources. In particular, this contact was used when it proved necessary for the AGS to obtain information from those persons residing in neutral countries. Also, after Germany’s capitulation, a Dutch officer, Lieutenant Commander Wissel, was sent to the Netherlands where, with the cooperation of ISTD (Oxford), a large amount of valuable information on the NEI was obtained and forwarded to the AGS’ Rear Echelon in Melbourne. Although much of this information arrived too late for wartime operations, it was used to revise earlier studies and reports for post-war purposes.

One other source of information should be mentioned. This was the American JANIS produced by the Joint Intelligence Publishing Board (JIPB), Office of the Chief of Naval Operations, Division of Naval Intelligence, in Washington. From early 1943 the JANIS tried to eliminate duplication of information issued by the Services and OSS. To this end, Major General George Strong (Chief of Military Intelligence, Department of the Army in Washington), Rear Admiral H.C. Train (Office of Naval Intelligence (ONI)), and General William Donovan (1883-1959) (Director of the OSS, 1942-1945) coordinated a joint effort by appointing a steering committee on 27 April 1943 that recommended the formation of a JIPB to produce the JANIS. Between April 1943 and July 1947, 34 JANIS studies were published. These studies were compiled from information obtained from over 20 government agencies and covered areas of Japan, Korea and Indo-China with over 2,000 copies of each study being produced. After the war the CIA was established, becoming operational on 18 September 1947. From 1 October 1947, the CIA assumed operational responsibility for the JANIS and on 13 January 1948 the National Security Council issued Intelligence Directive No. 3, authorising the National Intelligence Survey (NIS) (1948-
1973), as the post-war successor to the JANIS. The legacy of the JANIS survives today through the CIA's World Factbook (originally produced as an annual summary and update of the more detailed encyclopaedic NIS studies), a basic intelligence summary compiled primarily for the use of the American government. The first classified World Factbook was published in August 1962, and the first unclassified version in June 1971.26

The JANIS Publications covered broad subjects of no tactical value whilst, in contrast, the needs met by the AGS were local and immediate.27 For example, the JANIS covered New Guinea as a whole, but did not provide detailed coverage of places such as Hollandia and Madang. However, it did produce a 'magnificent series of encyclopaedic monographs in de luxe editions', largely for the use of Joint Chiefs of Staff (JCS) and high-level strategic planners.228

The AGS did not consider the JANIS staff, as well as the staffs of other intelligence organisations employed in the geographical field and their publications, to be of the same standard as its own.229 This was evidenced in a letter between the AGS LO in Washington, Major Pierce, and Jardine-Blake on 25 June 1945 regarding the possibility of the assignment of more officers to AGS. Pierce writes:

The men whose names are enclosed [for consideration] have all been with the JISB [JIPB] (JANIS), Army Map Service or G-2, and although their experience is not to the letter of that of an AGS Man, they have been doing this general type of work.

Jardine-Blake compared the JANIS to the AGS' Terrain Studies in the following terms:

The [AGS] 'Terrain Studies' preceded the American counterpart JANIS by many months; they set the pace in format and craftsmanship. They were developed within a minimum time period to meet immediate operational needs in New Guinea, the Halmaheras, and the Philippines. By mutual arrangement JANIS studies concentrated on areas to the north — Japan, China, Korea, and Manchuria — for strategic purposes at a later date.230

The JANIS and the AGS, however, did exchange work. A letter between Pierce and Jardine-Blake dated 21 July 1945 provides clear evidence of such an exchange of information. Pierce writes: 'The [AGS Terrain Studies] have been enthusiastically received here, and the reference to JANIS plans was accepted as a compliment by the people responsible for their original compilation here'.231 But, although JANIS (and other agencies) copied AGS publications, they did not acknowledge the work undertaken by the Section.
For example, Lieutenant Colonel McVittie made an unofficial complaint to the OCE in March 1943, 'regarding the practical invisibility of the acknowledgement to the AGS on the front of OCE Terrain Evaluation 98A. He also requested that Major Isaacs, the AGS LO with Headquarters SWPA, 'compare this publication with appropriate AGS publications and set down comment' on the situation. On 28 April 1945, Pierce finds cause to write Jardine-Blake on this subject saying:

AGS studies are the accepted publications over here. I was greatly amused the other day. I had just given the proofs of the Borneo Study...to a member of JANIS staff. About an hour later, I went over to see [Colonel] Bicknell, the Chief of the JISP [JIPB] (publishing board) about the status of JANIS studies for the future, and broke into his office rather unheard. Here, gathered round a large table, were about six of their top-notch writers going over the proofs I had just given them, comparing, erasing, and changing their in-the-mill JANIS of that area so as to conform with our study. They would never admit this, but i'll bet my last dollar on it. Not only that but the OWI (Office of War Information) asked if they could have some copies of our handbooks, as they furnished a most complete picture regarding terrain, and they want to use the data in preparing the topographic parts of their world-wide broadcasts and press releases.

It is also interesting to note that, in correspondence between Pierce's successor, Lieutenant Colonel Tobin, and Jardine-Blake on 11 August 1945, it is said that JANIS chose to finalise all of its Korea work into a publication similar to the AGS Handbooks 'using as a model [Terrain Handbook No.] 53, Cebu, with slight variations in style and treatment, so as to fit their original maps and texts'. For the completion of this task Tobin gave advice to JANIS when requested.232

In Washington the AGS publications were regarded as an authoritative source of geographical information and the unit was admired for its adaptability and flexibility. On 21 July 1945, following receipt of Terrain Study No. 130, South Eastern Kyushu (Japan Series) and No. 132, Tokyo & Kwanto Plain (Japan Series) (both published on 30 May 1945), Pierce writes:

[They] are definite evidence of a remarkable adaptability of our esteemed personnel ... I think that people here were inclined to be sceptical of AGS' ability to readapt themselves from 'jungle terrain' to heavily populated, civilised areas. I
would approach these people with a copy of one of the new studies with a sort of 'touche' look in my eye.233

The method of recording AGS terrain intelligence was designed to facilitate the compilation of reports. The 'table of subject headings' originally devised by Lieutenant Williams and refined under Lieutenant Colonel Mander-Jones formed the structural basis of all AGS reports until the latter part of 1943 when the rigid adherence to this 'table' was abandoned and it became a 'guide to layout' instead. This gave scope to handle peculiar areas and was supplemented by instructional memoranda on such topics as landing beaches, airfields and troop movements.234 These memoranda had covers marked 'Note: This memorandum is issued for instructional purposes within the Allied Geographical Section and is not intended for general distribution'. By the end of 1943, a set technique had evolved for the writing of studies.235

At the same time as the 'table' was abandoned, the AGS also experienced a considerable expansion in numbers of inexperienced staff and obvious problems resulted. The AGS was forced to entrust its new officers with the preparation of reports without supervision and, for a period, the standard of publications declined. Experiments were conducted to develop cross-referencing and sub-headings (along the same lines as the earlier 'table of headings') to help new members, but the problem persisted throughout the war, with the result that reports were accepted in 1944 and 1945 which might have been rejected in 1943.236 Because of the tyranny of deadlines, the AGS had to train its officers on the job.

The final stage of production for an AGS publication was printing. This was a major AGS task and was carried out commercially at considerable expense. Reproduction facilities in Australia were overworked and a lack of skilled labour and printing paper served to compound the problem. Without the cooperation and loyalty of the various lithographic and printing works in Sydney, Brisbane and Melbourne, it would have been extremely difficult to produce publications according to deadlines essential to planning and operational staffs. By the end of the war, and for the sake of efficiency, the AGS centralised its printing operations in Sydney under a contract with Simmonds Ltd, a well-established commercial printer. Jardine-Blake explained this move when, on 21 May 1945, he wrote to Lieutenant Colonel McVittie on the matter:

In the light of probable future requirements, it [printing] has received much examination and I have decided to concentrate it in Sydney. Melbourne has always been unsatisfactory for printing and the situation in Brisbane is, generally speaking,
that no one firm can complete a job without calling upon others, with all kinds of complications resulting. In Sydney we have Simmonds Ltd. who, apart from being our oldest printers, are an entirely self-contained firm capable of handling any job, however complicated. They are well disposed to handle all our Australian requirements in the future. Should a sudden pressure of work arise it can be farmed out more easily in Sydney than elsewhere (Most of the PI (Photo Interpretation) work was done in Sydney with Simmonds bearing the greater share).237

Using civilian printers presented an obvious yet necessary security risk. It was for this reason that the publications were classified 'SECRET - RESTRICTED' rather than being afforded a much higher status. As evidence of their true value, on 15 May 1945, McVittie wrote to Jardine-Blake about the importance of security in AGS printing arrangements:

> Obviously Terrain Studies must be produced by commercial firms and my comments are applicable to Special Reports etc. Terrain Studies should continue to be classified RESTRICTED. [General] Willoughby is anxious however that some effort be made in the nature of instructions to the printer of the fact that the security of these publications must be protected to a much greater degree then is indicated by the RESTRICTED classification.238

In reply to this letter, on 21 May 1945, Jardine-Blake pointed out that all printing firms and staffs contracted by the AGS were security checked as per Australian Army Regulations. He attached a copy of an acknowledgment form that all printers were required to complete after any job. This document confirmed the quantities of the publication printed, delivery, and that all type and blocks had been broken up. It also confirmed that all proofs and spoils had been destroyed by fire or pulping (in the presence of an AGS officer) and that all plates and negatives used in lithography had been cleaned and the original copy returned to the AGS.239 According to Major Ernest Francis, Officer Commanding AGS (NEI Detachment) and Rear Echelon in Melbourne, no security breach was ever suspected and no deadline missed. When a copy went to the lithographers or printers, it was accompanied by one of the officers responsible for its compilation so that any queries arising during proofreading could be immediately resolved. Lithographers and printers gave the AGS priority. Commercial managers had to be confident of the dependability of their staffs due to the tight deadlines being followed and this meant that civilians often
worked extended hours to support the AGS mission. Only in October 1945, when industrial disputes led to a printers strike, did the AGS have a legitimate cause to criticise commercial printers.240

As mentioned, paper was also a problem. By the end of 1943 stocks of paper in Australia had reached critically low levels, coinciding with a period when demand for, and the size of, AGS publications was dramatically increasing. Paper supplies in Australia were controlled by the Department of Import Procurement which had not gained the confidence of the AGS. As a result, the Section sought its own supply, from sources as far afield as America and Britain, and stockpiled massive quantities of paper. By mid-1944 it had accumulated a quantity of paper that was in excess of its own requirements.241

Distribution was always through Headquarters SWPA and, until the move to Manila was complete, not entirely effective. Several instances arose where Headquarters SWPA gave first priority to the movement of office furniture whilst ‘operational intelligence reports of an urgent nature [were] relegated’ a much lower priority.242 However, after completion of the move to the Philippines, this situation was rectified and AGS consignments were air freighted by Qantas charter, always accompanied by a courier carrying priority papers.243 Qantas only flew as far as Hollandia, after which USA freight planes assumed responsibility for delivery to Manila or other destinations. The AGS production and distribution system was made more robust in recognition of the requirement for increasing self-sufficiency following the relocation of Headquarters SWPA to Hollandia in September 1944. A staff increase occurred and personnel, normally of lowered medical status, were employed for transport and distribution tasks.244

The compilation and publication of reports preceded operations by weeks and often by only days. According to Jardine-Blake, ‘the average study produced by the AGS would have been a notable accomplishment, if six or nine months had been devoted to its preparation’. However, he went on to say that ‘rarely more than six weeks and sometimes as little as three or less were allowed for the production of careful and accurate appreciations of large areas concerning which, all too often, very little was known’.245 As a result, over-worked officers struggled exhaustively to meet deadlines, with a large amount of the burden resting on the Editorial Section. Deadlines having to be met, a compromise was often made which meant that imperfect reports sometimes had to go to print. Jardine-Blake emphasises that this editorial practice by the AGS was unlike other organisations such as the ISTD at Oxford. In the ISTD, intelligence and technical staffs prepared their data in draft form. This was then handed to a large editorial staff who
entirely rewrote the material, paying particular attention to coordination of style and standardisation of forms. Although this practice had obvious merit, it was a luxury unavailable to the AGS in the SWPA. During the 39 months of its wartime existence, AGS produced its publications at the rate of seven a month — one every four days. Its task was so immense and its importance so great that Lieutenant Colonel Tobin described the impending dissolution of the AGS as guiding the ‘SS AGS into its final berthing place at Tokyo Bay Dock No. 1’. Jardine-Blake boasted that a deadline was never missed.
CHAPTER 4

'BASIC INTELLIGENCE'

PUBLICATIONS OF THE AGS

In just over three years the AGS produced in excess of 350 studies, reports and terrain appreciations, printing over 300,000 copies. These provided planning staffs at Headquarters SWPA, Headquarters Army, Navy and Air Force and subordinate commanders 'with the information necessary for the careful and detailed planning which has characterised the most unique and successful campaign in the history of warfare'. Three principal types of publication were produced. These were the Terrain Studies (111 published, 92,000 reproduced and 65,828 distributed by 15 September 1945), a series of Special Reports (104 published, including two without numbers, 19,500 reproduced and 13,371 distributed by 15 September 1945), and the Terrain Handbooks (66 published, 150,900 reproduced and 114,356 distributed by 15 September 1945). In addition, a number of Special Publications were produced (refer Appendix 1).

At the opening of the SWPA campaign, experienced soldiers were obsessed by the challenges and difficulties that accompanied assaults upon heavily defended locations with little choice of landing points or opportunity for manoeuvre. Such operations should have been accompanied with heavy casualties. However, the comprehensive, accurate and painstaking work of the AGS very likely resulted in many fewer battle casualties than anticipated. In short, according to Jardine-Blake:

The availability of accurate and detailed information to the planning and operational staffs is the soldier's first safeguard. In the operational phase the well briefed combat soldier, fully aware of the conditions facing him, has the maximum chance of success and of survival. The ill-informed soldier blundering blindly through unknown country and undisclosed hazards frequently becomes a casualty.

Initially, the practice of preparing general surveys of relatively large areas such as the whole of Timor or New Britain was followed. These were known as Area Studies. In addition, reports of a more specific nature prepared for smaller areas within these large areas were known as Locality
Studies. However, the practice of preparing two separate studies was quickly abandoned. It became apparent that information, especially that gained from informants, often required immediate dissemination and that the best practice was not to defer it until a specific locality was under scrutiny. Also, under this system, difficult areas were often neglected.\textsuperscript{256} The AGS claimed, not without reason, that 'speed of collation, production and dissemination was the slogan of [Willoughby's Intelligence Section] and all its affiliates'.\textsuperscript{257}

Hence, the two studies merged. The resulting publication was the Terrain Study and represented the most important work of the AGS. Terrain Studies gave detailed attention to regions of particular tactical importance and more general coverage to areas of less significance.\textsuperscript{256} They provided all available geographical information of value to staffs for operational and planning purposes and varied in size from 3 to 244 pages of text with accompanying maps and photographs. Sometimes, especially in well-known areas such as the Philippines, they were larger with separate photographic annexes, such as those prepared by the American Engineers. Earlier, Terrain Studies were elementary in compilation and initially reproduction was set at 50 copies per study.\textsuperscript{259} Prior to July 1943, intelligence information was not measurably ahead of actual operations and production was dictated by strict deadlines. Later in the war the situation changed as intelligence got appreciably ahead of operations and a better indication of future areas where operations would occur became known. The standard of accuracy, completeness, coverage and presentation thus improved and increased demand resulted in the production of thousands of copies of each study.\textsuperscript{260}

The concept of the locality study was revived in early 1943 in the form of Terrain Handbooks,\textsuperscript{261} the 'tourist-guides' or 'Baedekers'\textsuperscript{262} of the assault echelons'. A Baedeker was a guidebook noted for its reliability and thoroughness by travellers the world over and named after the German publisher Karl Baedeker (1801-1859), who began the famous series with his handbook for travellers on the Rhine in 1832. Terrain Handbooks were, in effect, pocket-sized editions of the more general Terrain Studies, but designed for the operational stage and 'doughboy or marine who hit the beaches'.\textsuperscript{263} Therefore, information intended for planning staffs was removed and they provided basic topographical information of military interest to officers in the forward areas. Terrain Handbooks varied in size from 17 to 98 pages and included photos and maps. Several thousand copies of each were normally produced.\textsuperscript{264}

Various miscellaneous publications were also produced. These included Spot Reports, \textit{Ad Hoc} Reports and special publications.\textsuperscript{265} Spot Reports were 'top secret' by nature and differed from all other AGS publications.
Issued at short notice with a limited circulation, they were designed exclusively for the use of planning staffs. Being completed at short notice meant that information, such as that on landing beaches, was only as detailed as the time frame allowed. All information was placed in the text and in annotations to photographs. Ad Hoc Reports were usually provided to assist neighbouring commands and were specially prepared for a 'particular and exceptional purpose'. They were prepared on Malaya, Sumatra, Burma, Siam and Indo-China, mostly for SEAC. In addition, a variety of special publications, designed to deal with subjects of direct tactical interest that could not be covered in Terrain Studies and which called for special consideration, were produced. Examples included Vegetation Studies of Eastern New Guinea and the Philippine Islands, Sailing Directions, Australian Hydrographic Publications (AHP) (numbers 1-6, 8 and an unnumbered publication) prepared by AGS representatives within the RAN Hydrographic Office and, most notably, the four volume Annotated Bibliography of South West Pacific and Adjacent Areas. This list of books and writings on the SWPA and adjacent areas, that could be readily referred to in Australia, covered nearly 300 pages per volume and, as it was prepared for the specific use of the armed services, the annotations were restricted to subjects of military interest.

Another publication, the Special Report, was designed to meet the needs of planning staffs with information on specific problems such as landing beaches, airfields, paratroop drop zones, potential airfield sites and communications where time or other factors did not permit or warrant the preparation of a more detailed study. They were hurriedly prepared and entirely produced within the Section without any outside assistance and were afforded a high security classification of 'Secret'. They fell into three general categories: those prepared after the publication of the relevant Terrain Study containing additional information; those written as preliminaries to Terrain Studies; and those published for the information of the occupation forces after the Japanese capitulation and not destined to be followed by Terrain Studies and Handbooks. Special Reports were substantial publications often comprising over 200 pages of text with accompanying maps and photographs. They were prepared either as a preliminary basis for future Terrain Studies or as supplements to existing studies. A number of Special Reports were prepared for use by occupation forces after Japan's capitulation. Noteworthy Special Reports include No. 76, Railways-Java (6 July 1945), an unnumbered report Railways-Japan (1945) and No. 75, a three volume report titled Water Supply-Java (15 June 1945). The last special report identified, No. 116, Shanghai (China) (January 1946), was produced as an AGS publication well after the Section had formally disbanded.
Three booklets designed to assist the assimilation of allied troops in New Guinea were prepared as Special Reports and 250,000 copies were distributed. These were, You and the Native (12 February 1943), Getting about in New Guinea (no date, circa February 1943), and The Native Carrier (9 February 1943). These pocket-sized booklets impressed upon troops the importance of keeping the natives on side by outlining the 'dos and don'ts' regarding their treatment. This was both for the sake of the war effort and to instruct soldiers in the best ways to make use of natives in the jungle for personal survival. Officers with local experience, such as the anthropologist Lieutenant Francis Williams, prepared them, and they proved very useful, especially to servicemen who had no previous experience of tropical conditions or primitive native people. Advice such as allowing the native to 'walk in front of you on the track' because 'they have sharp eyes for pitfalls, snakes and stinging plants ... they will cut the lianas ... they like to do it' was given. Broad topics ranging from how to best communicate ideas, recruit a carrier, load and pay him, as well as medical issues and the treatment of women were covered.

Toward the end of the war, the AGS produced another booklet similar in style to those produced in early-1943. Java - Handbook for Servicemen (no date, circa March 1945) was collated for the use of troops reoccupying, or operating in, the NEI and sought to introduce them to the culture and lifestyle of the local inhabitants through a light-hearted, yet all-encompassing, account of what could be expected of life on the island. At the end of the booklet, the AGS included useful information (eg, commonly used words and phrases) that would assist the troops in everyday communication.

The AGS was also the primary source of geographical information in the frequently published and highly classified ‘G-2 Estimate of the Enemy Situation’, ‘G-2 Information Bulletin’, and later in the ‘BLACKLIST’ operational estimates in Japan. In response to a JCS directive of 14 June 1945, both Admiral Nimitz and General MacArthur had prepared occupation plans in the event of a sudden Japanese surrender. The Navy plan (CAMPUS) called for the initial occupation of Tokyo by naval forces followed by the landing of Army units in principal areas throughout Japan. MacArthur’s plan (BLACKLIST), which was accepted with minor modifications when the sudden Japanese surrender came, provided for the landing of strong forces from all three services in Tokyo, followed later by the occupation of secondary areas, such as Korea. The AGS played a key role in preparing geographical appreciations on areas of strategic interest in support of MacArthur’s plan.
It can be said without exaggeration that an examination of any of the AGS’ terrain studies, handbooks and other publications shows them to be compilations of a high technical order and models of clear presentation. Looking at them today, it is hard to imagine how a staff, which at its peak numbered about 300, managed to produce such impressive reports in so short a time. The AGS’ achievement is exceptionally commendable considering that it was only after the Second World War that serious attention was paid to the problem of evaluating and predicting terrain conditions. Today, terrain evaluation is a highly specialised branch of military intelligence, making use of remote sensing data, computer modelling and quantitative methods in addition to the traditional terrain study and handbook.
CHAPTER 5

‘HOLD THEM BACK’
THE AGS CONTRIBUTION TO HALTING THE JAPANESE ADVANCE
(JUNE 1942 - NOVEMBER 1943)

The AGS played a key role in the identification of significant tracks and overland routes in New Guinea. Perhaps of greatest significance, especially to the reader of Australian military history, was the critical role which the AGS had in preparing detailed geographic intelligence estimates and evaluations on what would become popularly known as the ‘Kokoda Track’, through its contribution to the SWPA Intelligence ‘Information Bulletins’.

These Bulletins were prepared under the cover of Headquarters SWPA, MIS as general War Department Intelligence (WDI) on matters of interest. They appear as working files, containing information from a variety of sources including the AGS, the OCE, memoranda, photographs, sketch maps and information from members of operational units. The AGS, through its Research Sub-Section, collected and collated patrol reports, station journals and other documentation that had been prepared on areas of New Guinea since the late nineteenth century for inclusion in its Reports.

One ‘Information Bulletin’, ‘Overland Routes from Buna to Port Moresby’, contains information extracted from the July 1942 Terrain Study No. 12, ‘Area Study of Buna and Plains of Northern Division’. This extract, entitled ‘Overland Route from Port Moresby to Kokoda’, gives operational planners information of vital importance, such as climate, distances, population and food, condition of the track, and anticipated travel times, as well as identifying some alternative routes. This report was prepared for the MIS by the AGS following a verbal request by Willoughby to Mander-Jones on 31 July 1942 regarding the requirement for information on the overland routes from Port Moresby to Buna. Mander-Jones replied to Willoughby’s request on 1 August 1942 and initially provided a report prepared under the direction of the Commander RAE, NGF, concerning a proposed alternative route from Port Moresby to Gap that the AGS was analysing. Other Information Bulletins of relevance to the Kokoda operation were also prepared with significant AGS input. An Information Bulletin entitled ‘Port
Moresby to Wau via Lakeamu River', dated 25 September 1942, was a compilation of recollections and reports by persons familiar with the area. The AGS is directly credited with producing the hand drawn maps within the Bulletin. In addition to a detailed report on aerodromes and landing fields, Pilot Officer (later Flying Officer) Michael Leahy (b. 1900), Rifleman Arthur Clark of the New Guinea Volunteer Rifles (Kanga Force) and Osmar White (1901-1991), War Correspondent for the Brisbane Courier Mail, all contributed by reporting on various overland routes in the area and providing detailed observations and recommendations gained through first-hand pre-war reconnaissance. The AGS collated and contributed to the route and information reports within these intelligence bulletins.

In the writing of its reports on overland routes in New Guinea, patrol officer reports were an invaluable source of intelligence. For example, one report used by the AGS had been prepared by a prominent ex-resident of Buna, Mr (later Captain in ANGAU) Oliver Atkinson (b. 1884). The area was well known to Atkinson who had been Resident Magistrate at Buna prior to the war. Memoranda prepared for the AGS by ex-residents of New Guinea serving with the Australian Army were another useful source of information used in AGS reports. One memorandum written to the AGS, dated 30 November 1942, had been prepared following an interview with an ex-resident of Papua, Lieutenant James Beharell (b. 1912) of ANGAU, and contained topographical information on the Tufi peninsula that was, at that time, of great significance to the AGS. Another handwritten memorandum, 'Recce Track Buna Area to Soputa-Sanananda Road' dated 6 January 1942, was forwarded to the AGS from Headquarters NGF. Attached to this memorandum was a patrol report dated 3 January 1942 by Patrol leader, Captain (later Major) Walter Humphries (b. 1890), a member of ANGAU. Information was also provided by other members of the patrol including Captain (later Major) Andre Pochon (b. 1913), IO, NGF, Lieutenant Stevens, a RAE from I Australian Corps, and native police and guides. An 18 May 1943 AGS report ('Route Lae-Madang Upper Markam-Upper Ramu Section') produced from this information was supplemented by maps and aerial photography prepared by the AGS.

The importance of the Kokoda Track was demonstrated when MacArthur wrote to Blamey on 9 June 1942 that:

there is increasing evidence that the Japanese are displaying interest in the development of a route from Buna on the north coast of southern New Guinea through Kokoda to Port Moresby. From studies made in this headquarters it appears that minor
forces may attempt to utilise this route for either attack on Port Moresby or for supply of forces.283

MacArthur’s concern led to the preparation of the aforementioned ‘Information Bulletins’ and the preparation of AGS studies on the locality. Accordingly, Locality Study No. 4, Area Study of Buna and the Plains of Northern Division was produced in June 1942. As a testament to the value of these studies and the ever-increasing demand for accurate and detailed geographical information, this study was soon superseded by Locality Study No. 12, Buna in July 1942 and No. 27, Buna [revised], on 18 October 1942.284 These studies would have existed in draft format prior to publication and it is beyond doubt that the AGS contributed to the preparation of the ‘studies’ to which MacArthur refers by alerting Headquarters SWPA to the major trails and tracks that existed in the area.

These ‘studies and appreciations’ could only go so far in preparing planners and troops for the forthcoming Buna campaign and the hardships presented by jungle warfare in steep country. However, they went some way to presenting realistically the obstacles that would confront the Allies in the months of fighting that lay ahead. The Japanese, without such geographical intelligence, grossly underestimated the effect of terrain on their forces and were thus repelled towards Buna and Gona after their drive toward Port Moresby between July and September 1942 failed. Also, unlike the Allies who had a fairly good indication of the location and condition of the various tracks, the Japanese troops led by Major General Horii Tomitaro (1890-1942) ‘found only a few primitive jungle trails, hacked out by the native people. ... Few of these tracks were suited to movement of supplies and vehicles, meaning that practically all sections of useable trails had to be improved and widened’.285 The Allies, however, did not have to improve the track, as they had at their disposal over 1,000 native carriers and a quantity of pack animals to use where motor transport was inoperable.286 Further, the AGS had anticipated the weather conditions as well as the gradient of the land that allowed the Allies to withdraw across it and establish favourable defensive positions in the vicinity of Ioribarwa to repulse the Japanese. The medical problems were also better understood and anticipated by the Allies, in no small part due to AGS studies. The Japanese miscalculation of conditions in New Guinea was so great that, by the time the Japanese reached Kokoda, one-third of their force had been depleted. Indeed, General Tomitaro was himself drowned while crossing a back-bay near Buna. The result was that fewer than 500 of the 4,000 Japanese who had begun the operation in July remained in fighting condition by the end of the retreat.287
Although the Allies were in little better physical shape than the Japanese and their supply lines were also stretched, they had the advantage of native support and had been forewarned of the conditions they were to face. Indeed, booklets produced by the AGS like *The Native Carrier* ensured the continuance of this support in an early form of 'hearts and minds campaign'. The concept of a 'hearts and minds campaign' was coined by the British during the Malayan Emergency (1948-1960) and during the Borneo Confrontation with Indonesia in the 1960s. In the latter case, the campaign aimed at winning the support of the people of Sarawak and Sabah (Malaysians) by ensuring that the official forces treated the locals with respect and friendliness. Pamphlets, similar in intent to those of the AGS, were produced for the use of officials during the conduct of these operations. The booklets produced by the AGS explained to the Allied troops the 'vital part [the native played] in the New Guinea campaign' especially in the logistic effort. It was impressed upon the soldiers that the successful handling of a native required 'both sympathy and expert knowledge'.

From November 1942 to January 1943, the Allies fought for Buna against fortified Japanese defenders in dense jungle and swampy marshland. The terrain to be fought over was anticipated in AGS studies. Lieutenant General Robert Eichelberger, the American commander of the campaign, said of the battle for Buna 'that nature as well as the enemy were pitted against his units' and that he and his troops were 'prisoners of geography'. To Eichelberger, the high casualty count was 'a high purchase price for the inhospitable jungle'.

John Coates, in *Bravery above Blunder*, is the only Australian post-war military writer to acknowledge the work of the AGS when he comments briefly on its operational worth in the battles for Finschhafen (23 September - 2 October 1943) and Sattelberg (17 November - 25 November 1943). Lieutenant General Coates is critical of the AGS for its inability to appreciate sufficiently the critical role of Sattelberg in the campaign. This is an unfair assumption for two reasons.

First, Coates has failed to appreciate fully the nature of the AGS mission. The AGS was responsible for the production of base level terrain intelligence in the form of studies, reports and handbooks intended to supplement the information available to planning staffs and troops prior to the commencement of operations. It was not the body responsible for tactical appreciations and their implementation into battle plans; instead, it was just one, albeit the basic instrument, of a vast intelligence network available to planners. The cover sheet of each Handbook and Special Report stated that their purpose was to 'provide basic topographical information of military
interest to officers in forward areas’. The cover sheet on the Terrain Studies said that ‘all available information of value to staffs for operational and planning purposes has been collated and incorporated herein’. The maps in all three publications were ‘intended to be used in conjunction with operational maps’. Although every AGS Terrain Study and Handbook contained a segment entitled ‘Military Significance’, or in the case of the Finschhafen study, ‘Main Points of Military Importance’, this was not a tactical appreciation but rather an assessment of the area as a whole based on geographical factors. For example, the nature of harbours, possible sites for airfields, distances from the locality to other Allied bases, tracks and rivers were briefly covered. The latest tactical situation in New Guinea would not have been known to the AGS as they prepared their publications in Brisbane, in advance of operations. For this reason, inquiries by users of AGS publications on enemy strengths, dispositions, installations and armament were directed to ‘see current intelligence summaries’ published elsewhere and not included in the Terrain Study. It was not until much later in the war that AGS studies and handbooks began to include, although only in the scarest detail, a mention of ‘areas of principal Japanese movement’. Emphasis, as in earlier studies, was still given to aspects like enemy airfields and possible airfield sites. The primary reason for improvements in the tactical coverage of AGS publications was that, by the later period of the war, the Allied advance was entering areas of the SWPA upon which more information was known. For example, in comparison to New Guinea, the Philippines was much more developed and had been American territory since 1898. To attribute blame to the AGS for a deficiency in tactical planning is unfair. Blame lies with the planning staffs that developed and executed plans without full consideration and appreciation of all information available to them.

Secondly, Coates appears to heavily base his comment on an analysis of Terrain Handbook No. 5, Finschhafen dated 18 August 1943. It appears that he has not fully appreciated the nature and purpose of the various publications of the AGS. Terrain Handbooks, it will be recalled, were produced as an abridged version of Terrain Studies for the specific use of the base level combat troops, with information of interest to planning staffs removed. To conclude that an appreciation of the key feature of Sattelberg was omitted by looking at Handbook 5 is a mistake, as this was not the purpose of the publication. Further, in a memorandum from Jardine-Blake to Willoughby dated 22 October 1943, Captain Peter Reid, 1 Australian Corps (formerly Second in Command AGS), points out that many copies of the Handbook did not reach the troops until the last minute and, in many cases, not at all. Regardless, the Finschhafen handbook does appreciate
the significance of Sattelberg, both as a settlement and as a key observation post commanding the coast. True, the AGS did not identify it as an enemy strong-point — this was not its job. This was the task of the AIB and other agencies dealing with the latest tactical intelligence. Sattelberg was considered by the AGS alongside several other features of similar geographical significance using the most up to date information available. Its importance was also considered in AGS Special Report No. 29, Sattelberg-Sio Area dated 30 October 1943. As a result of these publications, planners could assess the entire area of importance to them.

On the other hand, the 25 November 1942 Terrain Study No. 36, Area Study of Finschhafen and the Huon Peninsula, contains an 'additions and amendments' page (dated 22 February 1943)\textsuperscript{296} which shows a more complete appreciation of the key features in the area. In this report Sattelberg receives numerous mentions, especially in the section entitled 'Mountains and Ridges' and in the map supplements. For example, the valleys are described, with one exception, as being able to be 'easily commanded by fire and observation', with the sea approaches being visible 'readily at heights of one to four thousand feet within five miles of the coast'. Again, 'the hill station of Sattelberg at 2,000 feet' is described as being six miles inland and 'visible from Finschhafen except when regular heavy fog and mist impairs visibility'.\textsuperscript{297} Clearly, the AGS' job was to identify the geographical features of a locality: it was the task of the planning staff to determine the tactical significance of these features to their operations. However, it is worth noting that, in the closing stages of the war, when greater quantities of intelligence became available well in advance of operations, the AGS began including rudimentary assessments of a tactical nature in some of its studies. Regardless, such intelligence would naturally still have been superseded by the most up to date 'current intelligence summaries' by the time the operations commenced.

Sattelberg’s importance was its commanding position over the surrounding area. It overlooked the entire coastline about Finschhafen and blocked any further ground push northward toward Sio. The Japanese saw this and, perched on the jungle-covered ridgeline, waited for the inevitable allied landing. The AGS actually uses Sattelberg in many cases as the defining area within its study, primarily because this major station was one of the few known localities. There was often an absence of accurate and precise data, maps and air photographs on areas across New Guinea. Captain Reid, an AGS IO, explained that when the Section compiled reports on these lesser known localities it was 'simply a matter of finding what was available, checking it and rechecking it, and then making broad judgements about its reliability'.\textsuperscript{298} For example, the Sattelberg River, although
acknowledged as a minor stream, was used to give information on average monthly rainfall. This was because no information was available on other rivers. Likewise, the road system between Sattelberg and Finschhafen is described in detail, as it was one of the only developed motor transport capable tracks, a key appreciation in itself. It cannot be argued, as Coates has done, that ‘although innumerable terrain studies and pocket-books had been prepared by the AGS, the key terrain feature of Sattelberg had not been sufficiently appreciated’. The term ‘innumerable’ is itself inappropriate considering only three AGS publications were ever produced on the area.
An artist's impression of the pace of the AGS work
(Source: AGS Souvenir Book, pp. 6 and 18)
A cartoonist's impression of the life of an AGS IO
(the artist of the final picture in the series is Major General C.A. Willoughby)
(Source: AGS Souvenir Book, pp. 24-25)
Cover of a Terrain Handbook
(Source: Terrain Handbook 30, Morotai Island, 19 August 1944)
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Typical introductory note and first page of contents of a Terrain Handbook
(Source: Terrain Handbook 30, Morotai Island, 19 August 1944)
# PLATE 25

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First page of the contents of a typical Terrain Study
(Source: Terrain Study No. 78, Hollandia, 6 March 1944)
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Page one of the contents of a typical Special Study
(Source: Vegetation Study of the Philippine Islands, 25 September 1944)
An Annotated Bibliography
of the Southwest Pacific and Adjacent Areas

VOLUME 2

The Mandated Territory of New Guinea, Papua, the British Solomon Islands, the New Hebrides and Micronesia.

8th AUGUST, 1944

An Annotated Bibliography
(one of the AGS' most notable publications, the four volumes were reprinted in 1990)
(Source: An Annotated Bibliography of the Southwest Pacific and Adjacent Areas Volume 2: The Mandated Territory of New Guinea, Papua, the British Solomon Islands, the New Hebrides and Micronesia, 8 August 1944)
The Native Carrier

1. There are hardly any roads in New Guinea and no transport animals worth mentioning. You get about on foot tracks, and the means of transport is the native carrier. The tracks are mostly very bad. The carrier is good.

2. His endurance and mobility are marvellous. His average weight is about 115 lb. He can do a day's march with a load of 40 lb; he can start at a moment's notice; he needs no baggage; he can build his own house on the road; and he can go anywhere.

3. He has given willing service to the white man for the last 50 years and his help is absolutely vital now. We want to make the most of it. The way to do so is not to overdrive him, but to make his path as easy as may be by intelligent consideration.

OBTAINING CARRIERS

4. If you wish to get carriers from village to village, for one day only. If you have to keep them longer, try to replace them after a few days. They will be better satisfied if they do not have to go too far from home, and the problem of feeding and controlling them will be very much simpler.

5. Apply to the village Policeman, or the Leader, or the Tui Tui. He is used to getting carriers. It is one of his most important duties. You give instructions in him; he gives them to the villagers.

The Native Carrier

(Source: The Native Carrier: Employment and Treatment of Native Carriers in New Guinea, 9 February 1943)
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Contents page of G-2 Estimate of the Enemy Situation
(The 'Terrain and Geography' section was supplied by the AGS)
(Source: G-2 Estimate of the Enemy Situation to accompany "RENO" V, 15 June 1944)
PLATE 30

ALLIED GEOGRAPHICAL SECTION
SOUTHWEST PACIFIC AREA
TERRAIN STUDY NO. 36
AREA STUDY OF FINSHHAFFEN AND THE HUON PENINSULA

25 Nov. '42

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Contents page of Terrain Study No. 36, Finschhafen and the Huon Peninsula
(Source: Terrain Study No. 36, Area Study of Finschhafen and the Huon Peninsula,
25 November 1942)
Identification card for Lieutenant L.H. Modistach
(Source: Mr L.H. Modistach, Noosa Heads, Queensland)
Certificate of Appreciation to members of AGS
(Source: Mrs M. Morrissey, Kangaroo Flat, Victoria)
In planning military action to recover the vast areas north of Australia which had fallen to the enemy assault in the initial phase of the Pacific war, it early became apparent that outside of such areas themselves there existed no central fount of geographical information essential to such purpose.

The Allied Geographical Section, Southwest Pacific Area, was thereupon created as an inter-allied organization charged with research for source material reasonably available and necessary adequately to fill this void.

This bibliography is a condensation of the results of the exhaustive investigation of this organization into the resources of seventy libraries and scientific and cultural societies in Australia.

Its compilation has been made possible only through a combination of thorough and painstaking research on the part of the Allied Geographical Section and the enthusiastic support of leading librarians enlisted in furtherance thereof. In its finished form it truly becomes a literary monument to inter-allied effort and cooperation - a monument that will serve the purposes of peace no less than it has those of war.

I take this opportunity to express my grateful acknowledgment to Lieutenant Colonel W. V. Jardine-Blake of the Australian Army and his staff of co-workers in the Allied Geographical Section for outstanding service, and my deep appreciation to all civilian agencies and voluntary collaborators without whose generous support this important work could not have been accomplished.

Some of the commendations received by the AGS
(Source: AGS Souvenir Book)
Subject: Terrain Studies and Handbooks.
To : Assistant Chief of Staff, G-2,
       General Headquarters,
       Southwest Pacific Area, A.P.C. 500.

1. The terrain studies and handbooks produced by Allied Geographical Section covering areas of operational interest to this Command have been of inestimable value to me and the members of my staff in the planning of operations. We have made a generous distribution of the handbooks to the troops to be employed. With these handbooks in their possession, our troops will have a decided advantage because of their knowledge of the terrain over which they are to operate.

2. The mass of detail compiled in these references reflect in Allied Geographical Section an organization of skilled and untiring workers. The method of presentation shows an appreciation of the needs of the ground forces. The promptness with which deadlines have been met has been a remarkable accomplishment.

3. I desire to express my appreciation to the entire Allied Geographical Section complement for the valuable information derived from their publications and to commend them on the goals achieved. Their work reflects great credit to themselves, their directing head and on your office.

   Srds.,
   WALTER KRIEGER
   Lieutenant General, United States Army
   Commanding

May 5, 1943

SUBJECT: Commendation of Allied Geographical Sections.
TO : Director and Personnel, Allied Geographical Section,
       Brisbane.

1. It is desired to express the appreciation of this Headquarters for the valuable services rendered by Allied Geographical Section and associated N.E.F.I.S. Geographical Section in collaboration therewith.

2. This organization has published over fifty first-class terrain studies or monographs as well as a number of reports for special purposes, which have been a valuable contribution to Allied Staff planning. The typographical standard of the publication and quality of maps and illustrations are very high. The excellence of the work done is demonstrated by the extensive demand for these studies both here and overseas. Your unceasing efforts to explore and evaluate all available information are not only highly appreciated but have been of material assistance to the prosecution of the war in this Area.

3. The efficiency and zeal shown by the staff of the Allied Geographical Section and associated N.E.F.I.S. Geographical Section is most commendable.

For the Chief of Staff:

C. A. WILLIAMS
Brig. General, U.S. Army,
A. G. of S., U.S.
Besides the assessment made by John Coates, the only other appreciation of the operational performance of the AGS is made by the Section’s head, Colonel Jardine-Blake in the Brief History. He writes that, by the time of the Lae, Madang and Wewak operations (September 1943 - April 1944), the AGS had mastered the art of providing reliable and accurate terrain appreciations. \(^3\) In light of this, he criticises planning staffs for disregarding an AGS analysis of terrain in respect to the Morotai Island amphibious operation (15 September - 4 October 1944). A report from an informant, and presumably the source of much of the information contained in Terrain Study No. 71, Northern Molukkas dated 23 October 1943, \(^3\) and Terrain Handbook No. 30, Morotai Island dated 19 August 1944, \(^3\) saw the AGS correctly interpret a stretch of foreshore as white mud, whereas recent aerial photographs in the hands of those planning the landing indicated sand. The incorrect interpretation was accepted and the landings took place with ‘disastrous consequences’. \(^3\) Thankfully, although not spelt out by Jardine-Blake, the disastrous consequence was to equipment rather than personnel. The landings took place largely unopposed by the Japanese, but American equipment became bogged in the mud and a time consuming recovery was necessary.

A very similar happening took place in the case of the United States Marine Corps operations to capture Tarawa Atoll (20-23 November 1943). \(^3\) Tarawa Atoll is a triangular reef that supports numerous coral islands as part of the Gilbert Group. The Gilberts were considered of great importance to the Allies, as the island chain lay north and west of other islands held by the Americans and south and east of the Japanese bases in the Caroline and Marshall Islands. Capturing the islands was considered necessary as part of a thrust against the Japanese due to their close proximity to American supply routes to Australia. Furthermore, Japanese aircraft stationed in the Gilberts could cover the Samoan area and impede allied forces seeking to
capture the Marshall Islands. It was on the heavily fortified island of Betio, at the southwest corner of the atoll, that the battle of Tarawa took place as the first objective in the Central Pacific campaign. Although not an area on which the AGS produced studies, at Tarawa, unlike on Morotai, the disastrous consequences of the failure of planning staffs to accept sound geographical intelligence based on local knowledge was much greater, with the price being paid in both human and material losses: 1,009 Marines were killed and 2,101 wounded, and material losses included 90 of the 125 amphibious tractors destroyed in capturing an island of only 2.5 square kilometres.

The exact date and time for the Tarawa operation was planned around the tides. Tidal information was provided by the masters of British ships familiar with the waters, as charts of the area were old and outdated, having been produced in 1841. There was a dissenter to the date of the invasion, Mr M. Holland, a civilian who had lived on Tarawa for 15 years and predicted that there would be a ‘dodging tide’ (no high tide) at Tarawa on 20 November 1945. A high tide was critical to get the assault boats across the low reef to the shore, as there were only enough amphibian tractors for the first three assault waves. When the majority of the assault force, transported in Higgins Boats, ended up grounding on the coral reef (as predicted by Holland), the Marines were forced to disembark and traverse 450-900 metres of rough, uneven coral under heavy Japanese automatic fire. Many Marines drowned under their heavy equipment as they waded and swam ashore.

It was situations similar to Tarawa that the AGS was working to prevent by providing the most accurate hydrographic information through its work with the RAN Hydrographic Office and through reports that covered critical planning data acknowledged by strategists such as Jomini (1779-1869) since the nineteenth century. This planning data included wave information, beach slope, beach material, the nature of the near shore currents, topography at the landing site, vegetation, material shoreward of the beach, and the weather. With this information at hand, military planners and commanders would be sufficiently armed to prevent a repeat of disastrous miscalculations such as occurred at Tarawa. Obviously, by the time of the Morotai landings, the Americans had still not learnt a valuable lesson and, by ignoring AGS advice, had risked a similar fate. It would take several unfortunate experiences during amphibious operations for the Allies to finally appreciate the importance of expertly analysed oceanographic and geographic information as pre-landing intelligence.
Map 3
Morotai Landings, 15 September 1944
(Source: Smith, US Army in World War II, p. 476)
It was fortunate that the Japanese on Morotai showed little offensive spirit and chose to escape rather than defend the island as, had the landings been opposed, Allied casualties would have been high. The American Official Historian, Robert Ross Smith, writes that 'offshore conditions and, to a lesser extent, beach terrain at Morotai were not at all what had been expected. Available intelligence was not faulty — it was nonexistent'. By simply consulting Terrain Study No. 71, it can be seen that this statement is wrong and that the southwest coastline of Morotai, where the landings took place, was 'low with considerable areas of marshland'. Two sites were initially chosen for the landings: 'White' and 'Red' Beaches. Smith writes that, at 'Red Beach', the primary landing area to which Jardine-Blake refers, 'the expected light sand deposits proved to be principally a deep mixture of glutinous clay and mud, much of which had only a thin covering of sand'.

Terrain Handbook No. 30 described the vicinity of 'Red Beach' as being '800 yards of poor beach (landing over muddy reef) partially exposed to [North-west] monsoon with moderate surf and swell'. It further stated that:

Here fringing reef is 50-100 yards wide for approx 800 yards and partly drying. It is reported to be covered with muddy sand that slopes gradually. At [High Water] [Landing Craft, Vehicle] and [Landing Craft, Mechanised] might be able to reach the sand beach in a few places. [Motor Transport] would have difficulty moving inland from barges grounded offshore.

(Of the west coast in general, the Handbook said that the 'coast [is] low and swampy'.) Conditions became so bad that those vessels unloading on 'Red Beach' were eventually diverted to 'White Beach' which was experiencing similar problems on a minor scale. A new landing site ('New White Beach') was chosen three-quarters of a mile south of 'White Beach', but the poor conditions there forced the survey party to seek another site. Unloading was diverted to the eastern side of the Giala Peninsula (south coast of Morotai) and the shores of Pitoe Bay where an excellent landing area was found and named 'Blue Beach'. This allowed landing vessels to beach with dry ramps at high tide and rest on a flat coral reef 25 yards offshore at low tide. From 16 September 1944, 'Blue Beach' was used to the exclusion of other areas for 'unloading [Landing Ships, Tank] and for many [Landing Ships, Tank] and [Landing Crafts, Mechanised] lightering stores ashore from cargo
This, interestingly enough, was exactly what the AGS Terrain Study described:

The shores [south coast] are inclined to be low with a narrow coastal reef which aids landing, weather permitting, on the many sandy beaches which lie along this stretch of coastline. All of it can be approached close-to.\(^{324}\)

It goes on to say that:

It is usual when sailing to the west coast to discharge light goods at Gotalalamo and carry them across the narrow isthmus to Daroeba, distance about 3 km. The prahoe is then pushed by the crew inside the reefs (around the coast) in good weather.\(^{325}\)

However, \textit{Terrain Handbook} No. 30 describes the area vicinity ‘Blue Beach’ as:

Reef is closest to the shore for approx 700 yds and partly exposed at [Low Water]. At [High Water] it is possible that vehicles could be discharged from landing craft onto the reef flat and moved across the beach during calm weather. High surf can be expected during the [South East] Monsoon (Jun-Sep). [Landing Vehicles, Tracked] and [Amphibious Trucks] would be the most suitable craft for initial landings.\(^{326}\)

Map annotations of the western side of Giala Peninsula (vicinity ‘White’, ‘New White’ and ‘Red’ beaches) included, ‘700 yards (landing over coral) poor landing beach’, and that the coastline was ‘a narrow reef with sand’.\(^{327}\)

‘Blue Beach’ was approximately one mile south east of Gotalalamo, Daroeba was in the vicinity of the ‘Red Beach’ landings. Had the operational planners of Morotai heeded the AGS study, it would have been obvious that a landing on the west coast was impractical, at least for equipment. In light of \textit{Terrain Study} No. 71 and Jardine-Blake’s account, to say that terrain intelligence was ‘nonexistent’ is plainly incorrect. In the case of Morotai, evidence of the painstaking care of the AGS is demonstrated through the accuracy of its work.
Map 4

Map of coastal strip between Tg Gila and Tg Wajaboela, Morotai
(Source: Handbook 76, Morotai Island)
Terrain Study No. 71 also indicated the best sites for aerodrome construction and these sites were established as airfields following the Allied occupation. It also contained a section entitled ‘Possible Airfield Sites’ identifying ‘South coast, Morotai Island, on plain behind Gotalama village, 5 [miles north east] of Tg. [Cape] Gila’.\textsuperscript{328} Two Allied airfields, Pitoe and Wama, were sited here.\textsuperscript{329} Furthermore, Smith says that ‘medical problems on Morotai were not as serious as expected’.\textsuperscript{330} This should not have been a surprise as the AGS study had noted that ‘with the exception of leprosy, and the prevalence of malaria, as in most equatorial regions, health generally is good’\textsuperscript{331}

Tarakan (1-5 May 1945) was attacked to enable air and naval units to support future allied operations in the NEI and Borneo and to conserve oil installations on the island.\textsuperscript{332} However, the Allies were still making errors in their operational planning (eg, being caught off-guard by geographical factors) — errors which could have been avoided had they heeded the relevant AGS publications. Gavin Long writes that:

Strenuous efforts to establish a base on the beach had been hampered: The falling tide exposed a stretch of soft black mud 500 yards wide, and there were deep drains and soft clay pitted with water-filled craters farther inland. The water table was found to be only twelve to eighteen inches below the surface. Unloading proved so difficult [that the artillery could not commence action until hours after the planned timings].\textsuperscript{333}

This is an amazing revelation, parcelling the case of Morotai. Long writes as though this situation arose unexpectedly, although an examination of Terrain Study No. 90, North Borneo dated 15 November 1944 and Terrain Handbook No. 61, Tarakan dated 26 February 1945,\textsuperscript{334} both prepared well in advance of the operation, would immediately dismiss any such claim. In particular, the handbook identifies the landing beach that was used (fronting Lingkas, port of Tarakan) as Beach Number One, describing it as ‘a fair beach for [a] large-scale operation.\textsuperscript{335} Access to objectives is good, but landing of heavy equipment would probably be difficult’ because of a soft ‘muddy beach’ into which ‘vehicles would sink’.\textsuperscript{336} At the high water line, the beach was described as sandy, the ‘5 [fathom] (10m) line runs a distance of about 600 yards from shore’.\textsuperscript{337}

Clearly, the AGS handbook identified well in advance the difficulties present at the beach described by Long. The AGS also presented, on a mosaic aerial photograph of the area, the vegetation, hills, heavy and medium anti-air positions, barbed wire obstacles, roads, former Dutch machine gun positions and raised communications trenches, as well as other basic tactical intelligence known well before the operation.\textsuperscript{338} This was a luxury not
possible in its earlier publications. One example of the accuracy of the handbook is where it describes an isolated hill 70 feet high (Lingkas Hill)\textsuperscript{339} on a bend to the east of a road\textsuperscript{340} (Glenelg Highway)\textsuperscript{341} running ‘mainly through flat, partly swampy terrain’.\textsuperscript{342} On this feature the AGS speculated that the ‘Japanese [had] built a road ... and probably defence positions along the crest of the ridge’.\textsuperscript{343} This was confirmed when the landings took place and the 2/23\textsuperscript{rd} Battalion came under heavy fire as it approached Lingkas Hill.\textsuperscript{344} Although completely ignoring the AGS’ work in his book Tarakan, Peter Stanley implies that Willoughby’s Intelligence Section may have misread the situation.\textsuperscript{345} It is obvious, when it comes to geographical intelligence, that it had not.

In Borneo in 1945, the Australians aimed to capture the port and oilfields of Balikpapan that were built around the eastern headland of Balikpapan Bay. This was yet another example of the operational worth of the AGS. Balikpapan was seen by many as strategically unimportant (as the war was clearly drawing to an end), however Balikpapan was to be secured as a staging point from which to launch subsequent operations against Java.\textsuperscript{346} There were an estimated 3,900 troops and 1,000 Japanese and Formosan workers at Balikpapan, about 1,500 troops around Samarinda, and at least 112 heavy, medium and light guns round Balikpapan. Offshore from Klandasan to Manggar were heavy timber obstacles, and ashore the Japanese had erected a number of bunkers. The Allies and Japanese had placed so many mines off the coast that mine clearance had to be conducted more than two weeks prior to the landings.\textsuperscript{347} The landings commenced on 1 July 1945, with Japanese resistance being overcome in the immediate vicinity of Balikpapan by 9 July 1945. Long writes that

General [Edward] Milford (b. 1894) of the 7\textsuperscript{th} Australian Division decided to make the landing at Klandasan in the very heart of the enemy’s defences. The reason for selection of Klandasan was two-fold. Maximum fire support would be available on the first day and it was thought that it would prove more economical in the long run to assault the key positions directly.\textsuperscript{348}

However, it is obvious from Terrain Handbook No. 61, Balikpapan, and Terrain Study No. 109, South Eastern Borneo,\textsuperscript{349} that this decision was made in consultation with the AGS publications. The landing beach, number six in the Handbook,\textsuperscript{350} was described as running ‘east for two and three-quarter miles from the point of the corner of the [south west] corner of Balikpapan. It is a good beach for a large operation and is suitable for small [Landing Craft] at all but the lowest tides. It is suitable for large [Landing Craft] at [High Water] only’.\textsuperscript{351} It is described as the ‘best beach’ in the area, and that
it would be ‘probably heavily defended’. It was. The beach was also described as ‘probably soft near [Low Water] but otherwise suitable for [Motor Transport]’.

Long wrote that ‘the troops were landed on a 2,000-yard stretch of beach’ with, ‘Parramatta’ ridge dominating the landing area. The hills were said to ‘rise steeply from the narrow coastal plain on which the two airfields, one at Sepinggang five miles east of the town, and the other at Manggar five miles further on’ were located. The country was ‘open for several miles round Balikpapan, but farther inland forest and jungle clotted the hills’. Long’s description is consistent with that given by the AGS.

The AGS provided invaluable geographical information to operational staffs that supplemented their planning data and signal intelligence. However, it was up to planners and commanders to extract the information of relevance to them in light of the broader intelligence picture, which would have been unknown to the AGS in Brisbane. That the work of the AGS is a reference on many of the operation orders, maps, and other important documents confirms the importance of the role played by the AGS and that its work was made available and extensively used. In some cases, such as Sattelberg, it is evident that planners failed to exploit AGS reports to the full, primarily due to an inability on their part to identify areas of importance to them from the broad coverage provided by the AGS. In other cases, such as Morotai and Tarakan, it appears that planners either failed to consult the AGS publications at all, or ignored them in favour of other information, with potentially disastrous consequences. The identification and analysis of tracks and geographical conditions, such as between Buna, Kokoda and Port Moresby, is also evidence of the critical value of the AGS in an operational sense. Balikpapan was yet another operation where AGS publications clearly met the needs of commanders. These examples go some way in showing the critical importance of accurate terrain intelligence in the planning and conduct of offensive operations.
CHAPTER 7

‘TO WHAT AVAIL?’
OPERATIONAL ASSESSMENT OF THE AGS

Despite the usefulness of its Terrain Studies and Handbooks, the operational worth of the work performed by the AGS is not easily evaluated. This is due to the absence of any real contemporary analysis of its operational effectiveness. Unlike the Engineer Intelligence Division (EID) that had the luxury of checking the accuracy of their reports first hand, the AGS was not given the same opportunity. It found it impossible to secure satisfactory liaison with theatres where geographical data could be obtained, or where their reports and studies underpinned allied planning. Much EID material was used to supplement AGS reports in the form of Engineer Annexes. The AGS tried constantly to get feedback, even going to the effort of affixing to the end of each Terrain Study a ‘correction and/or addition report’. This report was, in effect, a tear-away sheet, self-addressed to allow the user to effortlessly comment on the study and other aspects of the AGS’ work. There is no evidence that any of these were ever returned. However, the fact that AGS publications were used throughout operations in the SWPA as references in operational planning suggests that its work was appreciated and relied on by planning staffs and units.

It is not surprising that the provision of feedback to the AGS was not a high priority for those using the publications in the field. The pre-operational nature of AGS work would have meant that the user had little further use for it after the planning and the initial landing phases. The exigencies of fighting left little time for evaluation which, in reality, would have proved impractical and field units generally accepted the AGS products without either comment, praise or criticism. To some extent, the value of the AGS work can best be evaluated by the continuing demand for its publications as SWPA forces threw back the enemy and advanced toward Japan. Various requests for publications, including additional copies of reports, were made by many different units including air, naval and special intelligence agencies, requesting reports on areas well in advance of operations, and are evidence of the usefulness of the AGS product.

The material provided by the AGS was frequently useful in the verification of field intelligence gathered from forward areas. One example is an inquiry
from NGF to the DMI, Brigadier John Rogers, CBE, MC (1895-1978) in early 1943 regarding information in a captured Japanese notebook. The entry, made between December 1942 and January 1943, reads: ‘According to natives, the road between Lae and Madang is used by natives and is passable for automobiles. It takes ten days on foot’. This information was confirmed by Rogers on 11 February 1943 by reference to AGS work which reported that during June or July 1942 up to 500 head of cattle had been driven along the route and ‘it was almost possible to get a jeep the whole way at that time’. He concluded that ‘in view of the facts … the statement that [the route] is passable for automobiles is therefore probably correct’. The special studies and reports provided by the AGS to operational units were often more accurate than those compiled by the units themselves.

Impromptu reports by field officers were one form of feedback, and it appears that the AGS did not always relish criticism. An example of this was a report by an American field artillery officer, Captain Robert White II, who was the Headquarters SWPA LO with Major General George Vasey, CB, OBE, DSO, ED, MC (Greece), DSC (1895-1945), General Officer Commanding, 7th Australian Division. Titled ‘Terrain, 7th Australian Division, Operational Area’, and dated 31 October 1943, it is clearly written as constructive comment and criticism of Terrain Study No. 66, Ramu-Markham Valley with link to Madang published on 25 November 1942. White is critical of the publication’s analysis of the areas north and northeast, vicinity Bogadjim-Madang of New Guinea, towards which the 7th Division was soon to advance. The author believed that terrain would ‘be a dominant factor in the operation’ and that although ‘currently available terrain studies of the area were fairly accurate … they [were] guilty of gross understatements in their description of the mountains to be crossed in any movement between the Kunai [coarse jungle grass] covered valley of the Ramu and the moderately rolling hills of the coastal area’. White’s report was based on personal reconnaissance, aerial photos and interviews with local people. It must be noted, however, that General Vasey may have had ulterior motives in forwarding White’s report, as at this time he wanted to avoid a slow overland advance across difficult terrain in favour of further airborne operations. White points this out in the closing paragraph of his report.

The AGS does not appear to have received White’s report well. In a memorandum dated 10 November 1943 it replied that:

The terrain studies [questioned by White] represent a careful compilation of all the tested evidence available and no modification is considered necessary as a result of [Captain]
White’s report. ... It is felt that perhaps Captain White is obsessed by the natural difficulties of terrain with which he might not be familiar, and which offers a sharp contrast with the grass covered Ramu and Markham Valleys.  

A document containing comments defending the AGS’ publications was attached and distributed with this memorandum to ‘constitute a sufficient reply’ and was given the same distribution as White’s original report. White replied to the AGS’ comments in a signal to Willoughby on 17 December 1943 to which was attached a ‘record of the facts’ upon which his report was based. In a conciliatory paragraph he wrote:

I regret the initial report was so worded that it could be interpreted as an effort to disparage the work of the AGS. As the report acknowledged, their work covering the broad field which of necessity is theirs, is good. I had hoped my report would do nothing more than supplement with first hand details.

Although his covering memorandum is clearly conciliatory, the same cannot be said for White’s ‘record of the facts’. In fact, this ‘record’ is longer than his first report and focuses primarily on the traversability of the area in question. White argued not only from logic but also from the advantage of operational experience in similar areas. A motor transport road being built by the Japanese was described by the AGS as being constructed with ‘comparative ease’. White points out that intelligence reported that motor vehicle movement along this road was impossible beyond 18 miles, despite 5,000 labourers being employed on the task for several months. Also, over 30 bridges had to be built in one locality. He concluded that building this road was not done with ‘comparative ease’. He also showed that the alleged rate of movement by troops on foot detailed in the AGS study was exaggerated, using evidence from divisional intelligence as confirmation. The AGS, according to White, was assuming impossible ‘best-case’ parameters, such as all troops being always at peak physical condition, and impossible rates of march. White cited captured Japanese march tables that contradicted the AGS’ assessment. In short, all of White’s statements of ‘fact’ come from an operational soldier on the ground, not the AGS based in Brisbane far removed from the fighting. When the AGS described many of White’s observations as ‘absurd’, he replied saying that for the AGS ‘to call [the opinions of experienced officers in forward areas] ‘absurd’, is [itself] absurd’. White’s report of 17 December 1943 was the final correspondence on the matter. Obviously, although AGS was highly defensive in the face of
White’s criticisms, a constructive debate was sparked by this correspondence which proved valuable in that it at least challenged AGS to investigate the accuracy of its material in at least one case.

A further means of evaluating the operational worth of the AGS is through AGS LO reports in the forward areas. LOs interviewed members of operational units to gauge their opinion on the value of publications and to seek comment on such matters as distribution. The responses suggest that the work of the AGS was valued and that those in the field needed it. One example of this method of evaluation was a report forwarded to AGS Headquarters by a LO in New Guinea. This report (dated 22 October 1943) comprised extracts from a number of previous liaison reports and was probably compiled by Captain Norbert Mason, with assistance from Staff Sergeant Arnold Ewens (b. 1914), who were at that time attached as liaison to Headquarters NGF in Port Moresby. A variety of representatives from a diverse number of units, ranging from the AIB Port Moresby to officers of the 7th Australian Division, were interviewed.57 One officer, Lieutenant Christie of the Coast Defence Headquarters that moved to New Guinea in 1943, said that he lent a copy of a ‘Handbook to the senior officers of the units, and … they devoured them [sic]’. Distribution to many units proved inadequate and not all had access to AGS publications. The AGS may not have received feedback, but this resulted in numerous people ‘always making enquires from intelligence on lower formation headquarters for just this information’. Captain Peter Reid, 1 Australian Corps, reported that ‘some of the Finschhafen Handbooks came on the last possible day before the troops concerned were out of reach. 200 copies came too late altogether’. Captain Moreton, Operational Intelligence, 11 Division, believed that the initial distribution needed to be made as far down as battalion headquarters since many units in his area were not receiving any AGS publications. He reported that:

While they [11 Division] had 9 Division units in command they would average 20 enquires a day from Colonels down on topographical matters and the AGS information was all, or practically all, that was available. Handbooks would have satisfied any of them although [terrain] studies would have been especially useful in many cases. All they actually got was a little information hurriedly culled from the Handbook with some help from the Studies.

Although this was sometimes the case, it must be said that not all units were in favour of the dissemination of AGS reports as far down as the Battalion IO. The Intelligence Operations Major, 7th Division, Major Ian
Lowen (b. 1917), was not in favour of 'Terrain studies going below Division or (temporarily) Brigade' level, believing that at this stage the essential information could be extracted and passed down on a 'need to know' basis. However, he had no criticism to offer concerning the publications and thought them 'very good' and that 'they contained everything they looked for'. Moreton's opinion was supported by Captain Herbert Piper (b. 1915), an IO in the 7th Division. Comments such as these abound in the Liaison Reports and indicate the value of the AGS work, even if it was often reflected through the concern and displeasure shown by staffs in not receiving them.

It appears that the primary problem with distribution came from the fact that NGF Headquarters did not distribute AGS publications until the last minute and that some unit IOs had failed to press NGF to do anything about the problem despite the constant demands for terrain intelligence. In New Guinea, Captain (later Major and an AGS LO who joined the AGS on 21 July 1944) William Isaacs, representing Headquarters NGF Intelligence, defended the last minute distribution of reports. He believed that distributing studies and reports to all operational units in an area was 'overdoing it', that it would simply 'give them more time to lose the material', and that NGF was loath to burden itself with increased distribution problems. This is interesting considering the comments of the IO of the 2/9 Battalion, Lieutenant Allen Elliot (b. 1915), who viewed the reports as being of 'tremendous value', and wanted every possible report he could get his hands on. To him the 'value of the studies [was] out of all proportion to their weight'.

The AGS view was that units should complain about not receiving their publications, and that early distribution would allow commanders more time to absorb the material. It believed that if the 'extra knowledge were responsible for even a little more efficiency from some units the effort would not be wasted'. Lieutenant Christie of the Coast Defence Headquarters rightly expressed the opinion that 'all units that are likely to move forward should have a chance to educate themselves in the geography of the country' and pointed out that some units had been disadvantaged as 'they had no studies whatever'. It seemed to this AGS LO that many units in desperate need of information were being deprived until the last minute, and that those receiving information late were denied the time to use it.

The major drawback of early and increased distribution was a concern over security. If a Terrain Study or Handbook fell into the hands of the enemy, it could very well give away the next area into which the allied forces would advance. This concern included the possibility that 'copies, or some advance knowledge would fall into the hands of the Chinese Military Liaison'. This perceived 'Chinese threat' was evidenced in a memorandum
written on 19 April 1945 by General Willoughby to Lieutenant Colonel McVittie and Colonel P. Cooper, head of Plans and Estimates SWPA Intelligence, regarding the requirement for 'secrecy' surrounding AGS work on Japan and Korea. Accordingly, he directed that a number of special precautions be taken, including limitations on distribution, imposing printing precautions, and the special dispersal of type, so that no specific locality was conspicuous. Finally, Willoughby directed that Jardine-Blake be warned 'in a special, secret letter of instruction' to observe these precautions for the protection of the Allied cause. In turn, the problem of security was acknowledged by the AGS and overcome by the distribution of publications on areas that would not be attacked, along with those on areas that would. Only high level commanders knew of impending operations and those not privy to such information were kept guessing. Furthermore, the AGS encouraged the education of troops in the best use of publications and in personal discipline. For example, it was ensured that troops did not carry AGS publications into forward operating areas. If there was occasion to do so, the document was to be destroyed if any risk existed of it falling into enemy hands. The covers of each AGS document were marked accordingly.

Clearly AGS publications were in heavy demand. Despite this, and through no fault of the AGS, they were not always distributed in a timely or efficient manner, which may have lessened their effectiveness. For example, copies of the AGS terrain study and handbook on the Lae-Hopoi Area were demanded by Rear Admiral (later Vice Admiral) Daniel Barbey (1889-1969), Commander Seventh Amphibious Fleet SWPA, in advance of allied assaults on these areas in September 1943. However, due to a failure in the distribution system, these arrived too late to be of any use. Further, the AIB in Port Moresby had received no AGS publications at all by 22 October 1943. Other units, realising the value of its work to their operations, requested that they be added to AGS distribution lists. For example, the American Chief Engineer (Works) had to establish camps as the troops advanced, so knowledge of the terrain would make this task easier. On the other hand, the RAAF Survey and Design Unit had never heard of the AGS, although a Flight Lieutenant interviewed in October 1943 ‘immediately realised how useful [AGS work] would be to his unit’. This unit, at least realised that knowledge of terrain was basic intelligence for operational planning. Although it is difficult to find an analysis of the AGS’ work, a clear indication of its operational value was provided by Lieutenant General Walter Krueger, Commanding General Sixth Army, when he wrote to the Director AGS on 18 October 1943:
The terrain studies and handbooks produced by AGS ... have been of inestimable value to me and the members of my staff in the planning of operations. We have made a generous distribution to the troops to be employed. With these handbooks in their possession, our troops will have a marked advantage because of their knowledge of the terrain over which they are to operate.

The mass of detail compiled in these references reflect in the AGS an organisation of skilled and untiring workers. The method of presentation shows an appreciation of the needs of the ground forces. The promptness with which deadlines have been met has been a remarkable achievement ...
CONCLUSION

It remains to examine the overall efficacy of the AGS during the Second World War in the SWPA and its place in the history of geographical intelligence and military geography, but initially some comment needs to be made concerning its immediate and long-term legacies.

Following the dissolution of the AGS on 30 November 1945, no formal geographic unit existed within the Intelligence Section of AFPAC and its functions were sorely missed. Realising a clear requirement for an organisation to collect, collate and record the immense amount of geographical data which had been gathered by both the Allies and the Japanese, on 2 June 1946 Major General Willoughby created a successor to the AGS — the Geographic Bureau within the ATIS. The ATIS was well placed for this task as it had collected a large number of captured Japanese documents and maintained a pool of skilled linguists. Willoughby instructed Colonel P.H. Bethune, Intelligence Executive Group, to forward all terrain information available on areas to the northwest of Japan (Korea-Manchuria-Siberia) to the new Bureau directing that the ATIS was to produce terrain studies in the same form as those previously prepared by the AGS. Like the AGS, the Geographic Bureau had humble origins and commenced its existence with only one member, Second Lieutenant R.L. Warfell. By October 1946, the Bureau had grown to 10 members (2 officers, 1 enlisted man, 5 civilians and 2 Japanese Draftsmen). On 29 January 1947, Major T.G. Balliet was appointed Executive Officer prior to the arrival, on 6 February 1947, of the organisation’s first Chief, Dr K.B. Krauskoph.

On 18 February 1947 the name of the new unit was changed from ‘Geographic Bureau’ to ‘Geographical Section’ and it remained under ATIS until its transfer, on 8 December 1947, to the Plans and Estimates Branch of Theatre Intelligence. On 28 January 1948 Lieutenant Colonel R.L. Zalesky assumed command of the Section and Dr Krauskoph was appointed his assistant. By 1 February 1948 the Geographical Section had grown in strength to 36 members (3 officers, 2 other ranks, 21 civilians and 10 Japanese nationals). Among its achievements, the Section brought up to date existing studies by collecting, correcting, collating and checking geographic and hydrographic information from Japanese sources. It also prepared new studies on areas not previously covered and compiled spot reports as demanded. These included areas of the Soviet Union, China, Korea and Manchuria. Further, it prepared and kept current a file of available information, suitably cross-indexed and accessible, from which reports on
any specified area or subject could be quickly assembled. A great deal of valuable intelligence information was therefore extracted from sources previously unavailable to the former AGS.379

The value of the Geographical Section can be gauged through its publications, which were still being produced as Jardine-Blake wrote his Brief History of the AGS in 1948. As testimony to the value of this work, Colonel E.H.F. Svennson, GSC, Director WDI, recorded on 7 July 1947 that:

The research has already uncovered much detailed information, which would not have been found by other means; much of the information, for example data on airfields and road conditions, is of immediate military value; some of the information, while not of immediate military value, will be necessary for intelligent long-range planning. Most probably the opportunity to obtain this information will never again be as favourable as at present.380

In Australia the AGS became an AIF unit attached to the Australian Army and headquartered at South Yarra. Its new role made it the recipient of bulk intelligence material and records from disbanding formations within the SWPA and neighbouring commands. The AGS then sorted and assessed this material along with its own accumulated during wartime.381 By 1947, the AGS' permanent formation was assured within the Commonwealth Department of Defence when its functions and responsibilities were integrated into the charter of the newly formed JIB,382 designed to serve the military intelligence requirements of all three services.383 This answered the question of how the functions developed by AGS under wartime conditions could best be absorbed into an appropriate national defence programme. On 5 June 1946 Jardine-Blake, aggrieved by the decision not to make him head of the new organisation, stood down as Director AGS (the unit Regimental Orders record his loss from the unit strength as at 3 July 1946). Lieutenant Colonel Adam Smith (formerly the Assistant Director AGS who had been in Manila with the Forward Echelon) became its new head and Major Ernest Francis, formerly the Officer Commanding AGS (NEI Detachment) and Rear Echelon, became his assistant. Major Francis marched out on 23 August 1948 and Smith remained with the Section until 2 December 1948.384

The JIB was envisaged as a civilian-based organisation with extended intelligence responsibilities. While the AGS' emphasis was predominantly directed at military geography, the JIB embraced economic, financial, ethnic
affairs, and other areas of common interest to all three services. The concept evolved with considerable guidance from the British. It had been decided in Britain that the ISTD would ‘melt into an organisation called JIB. It will be comprised of all kinds of branches and organisations ... it will be centrally located in Britain with undoubtedly foreign branches. A lot of the present personnel in ISTD will be in it. Most of the personnel will be civilians but, of course, the Army and Navy will furnish the top heads’. The Australian organisation followed this model and each of the functions performed by the MIS during the war were meshed together into one organisation. The Australian JIB would focus its efforts on areas of importance to Australia such as ‘New Guinea and its surrounds, and broadly the South Pacific and territories to the east and west’. The JIB evolved in 1970 into the Joint Intelligence Organisation (JIO), the aim of which was not to collect but to collate and assess data. Later, in 1989, intelligence staff within Headquarters Australian Defence Force combined with the JIO to create the Defence Intelligence Organisation (DIO), an agency aimed at strategic level intelligence planning, collection, management, analysis and liaison. The DIO’s role is ‘to provide intelligence to inform Defence and Government planning policy, to support the planning and conduct of Australian Defence Force operations, and to develop and maintain a defence intelligence capability for use in times of crisis and conflict’. Strategic level intelligence is disseminated to the operational level for the eventual use of tactical planners.385 Today, the legacy of the AGS survives and will continue into the future regardless of continuing changes to Defence intelligence processes and agencies.386

There was another legacy of the AGS — this time an academic one. In 1946, influenced by the experience of war in the Pacific, the government set up The Australian National University, Australia’s first research university, to serve Australia’s post-war needs for advanced research and postgraduate training. Its foundation schools included the Research School of Pacific Studies whose mission was to study the history, geography, economies and anthropology of the islands to the east and north of Australia.387 In this work, the AGS’ magnificent four-volume Bibliography of the SWPA and Adjacent Areas (republished as recently as 1990), became a major reference work and its terrain studies basic sources for research scholars (especially in geography and anthropology) undertaking fieldwork. Likewise, AGS publications were very useful to the Australian School of Pacific Administration (ASOPA) set up in Sydney in 1946 to train patrol officers, teachers and administrative officers for service in New Guinea and other Australian territories.388
Notwithstanding the natural generosity of the victors towards themselves and the armed services' strong inclination for self-congratulation, the many commendations received by the AGS seem justified. One received from Major General Willoughby as early as 5 May 1943 praised it for 'valuable services rendered by the AGS and associated NEFIS Geographical Section in collaboration therewith', and said that the award was made for its:

valuable contribution to allied staff planning. The typographical standard of the publication and quality of maps and illustrations are very high. The excellence of the work done is demonstrated by the extensive demand for these studies both here and overseas.\(^{380}\)

Willoughby later wrote that the AGS did not dissolve before it had become 'next to ATIS, the most important and productive Allied agency operating under G-2, SWPA'.\(^{380}\) Another commendation, dated 18 October 1943, described it as an organisation of 'inestimable value' with an 'appreciation of the needs of ground forces'.\(^{381}\) Yet another on 27 October 1945 said:

These studies have involved the assembly and collection of information ... under adverse supply and printing conditions; often operational requirements have demanded sudden and drastic revamping of programs and schedules but the high quality of typography, maps and illustrations has been scrupulously maintained and deadlines faithfully met. ... AGS studies have been an extremely valuable contribution to the success of Allied operations in the SWPA. ... The ardour and efficiency shown by staff of the AGS have been most commendable.\(^{392}\)

The Director of Intelligence (1944-1945), SACSEA, Major General Sir William Penney, KBE, CB, DSO, MC, on 15 September 1945 said that 'without the help which we have had from AGS, we should have been very hard put to indeed meet the needs of our occupation forces'.\(^{393}\)

For his leadership of the AGS, on 18 August 1944 (although not gazetted until 10 April 1947)\(^{394}\) Colonel Jardine-Blake became one of a handful of Australians to receive the prestigious United States Legion of Merit, Degree of Officer.\(^{395}\) This was awarded by order of President Franklin Roosevelt (1882-1945) on the advice of General MacArthur for 'exceptionally meritorious conduct in the performance of outstanding service'.\(^{396}\) He also received the Australian Efficiency Decoration. Jardine-Blake retired to Nortons Summit, South Australia in 1946 and lived for a time at
'Roquebrune', Kalorama near Melbourne, maintaining a link to military intelligence as an Honorary Colonel in the Reserve of Officers until 7 March 1949. He subsequently settled in England and lived at Pyrford, Woking, in Surrey, twenty-five miles southwest of London, not far from the garrison town of Aldershot, the premier military training centre in the United Kingdom. He died of heart disease at his home, 39 Harehill Close, Pyrford, on 2 November 1971 and was cremated at Randalls Lane Crematorium.397

For their part, all members of the AGS received a certificate signed by Major General Willoughby recognising their efficient and faithful service to the MIS SWPA during the prosecution of operations against the forces of the Japanese Empire in the Second World War.

The geographical intelligence generated by the AGS not only underpinned successful operational plans, but produced a soldier who was more informed and confident than his Japanese counterpart. This was precisely the information that Japanese commanders complained they were never given. Major General Tonikawa Kazuo, Staff Officer of the Japanese Eighth Area Army that was commanded by Lieutenant General Hitoshi Imamura, during interrogation, provided testimony to this:

We did not have information about the terrain in New Guinea. As our forces withdrew under enemy pressure, we left some men with wireless sets to get information behind the enemy's lines. The results however were meagre ... Allied intelligence was far above what we would attain.398

The immense task faced by the AGS becomes apparent when one appreciates that the SWPA, unlike Europe, had not been extensively mapped or 'Baedekered' in the pre-war years, and so presented a unique challenge to the military commander. As Major General Willoughby records:

To solve the problem of the non-existence of terrain studies, the necessary Baedekers of war, MacArthur's G-2 had to start absolutely from scratch. Before the war was over in August 1945, G-2's AGS, one of the great unappreciated work-horses of the war, had turned out a grand aggregate of 193,555 terrain studies, terrain handbooks, and special reports, most of which had to be done on forced printing deadlines and hurried to troops and staffs on fixed dates, agreed upon for irrevocable operations. Throughout most of the war the documents were flown from Australia hundreds and even thousands of miles to the front, on split second deadlines.399
The AGS was established as an inter-allied, inter-service, organisation with good reason. First, the paucity of information on the SWPA meant that the vast majority of what did exist was held within Australia. This explains mainly why, for most of the war, the AGS remained heavily staffed by Australians, both military and academic. Second, and more obvious, prior to the war, the NEIs had been administered by the Dutch, the Philippines by the Americans, and New Guinea by Australia. Each colony was best known to its governing colonial power. This fact was acknowledged during the earliest period of the unit's establishment and was predominant in the decision, at Australian insistence, that the AGS be established as a separate organisation outside the influence of the American Corps of Engineers. This was not normal practice in American military administration. Obviously, prior to the re-occupation of the Philippines, American involvement was at a minimum due to manpower constraints, more pressing operational commitments, and its meagre pre-war knowledge of the areas being researched.

It is important to remember that AGS publications were designed to supplement the intelligence available to planning staffs and were meant for use in conjunction with the 'Current Intelligence Summaries'. They made no claim to provide information as to the disposition of enemy forces, or a tactical assessment of likely actions, although late in the war some rudimentary tactical intelligence, gained well in advance of operations, was included in some publications but would have been dated compared to the latest information. Such information was not known to the AGS, as it worked far from the fighting. The theory behind much of its work, the quality of which was often influenced by time constraints, was that 'some information on the geography of the areas being covered was better than none at all'. The fact that its findings were sometimes ignored by military planners, to the detriment of an operation, might easily be explained as being just something which happens in war, where personalities and egos have as much a part to play as commonsense does. However, in the final analysis, the least that can be said of the AGS is that nowhere in the official histories or in specialist books on various operations is the failure to provide adequate geographical intelligence cited as a legitimate cause of a setback or defeat. There was a clear thirst for the work of the AGS amongst forward units. Not every intelligence unit set up by the Allies in the SWPA could be said to be vitally necessary, but the AGS, together with the AIB and ATIS, were essential in gaining victory. It is hard to imagine the political fallout if any of these units had not operated and the Allies had suffered setbacks and defeats.
The AGS produced basic topographical information, often at short notice, for the use of planning staffs and military officers. This proved important in achieving victory in the SWPA. The AGS' responsibilities and functions are still acknowledged, although not in name, within the charters of present-day Australian and American intelligence agencies. To this end, according to Harold Winters, 'despite the evolving technology in warfare, physical geography has a continuous, powerful, and profound effect on the nature and course of combat'.

* * *

In London, three years after the Second World War, Cyril Falls (1888-1971), Chichele Professor of the History of War at Oxford (1946-1953), gave an address to the Royal Geographical Society entitled 'Geography and War Strategy'. In it, among other things, he asserted that 'geography will always hold the key to strategic problems'. In the discussion that followed, Field Marshal Lord Bernard Montgomery of Alamein (1887-1976), Chief of the Imperial General Staff, said:

Victories in battles win wars. That being the case, I feel the making of war resolves itself into very simple issues, and the simplest in my view is: what is possible and what is not possible, I would say that three things matter most. I am assuming, of course, that the weapon is a sharp weapon and not a blunt one; that is to say, that you have good armies and so on. I am assuming that you have a good command set up to wield the weapon; and finally that the allied solidarity is complete. Assuming that what is possible will depend firstly on geography, secondly on transportation in its widest sense, and thirdly on administration. Really very simple issues, but geography I think comes first.
Notes

Introduction


2 Willoughby was born in Heidelberg, Germany as Karl Weidenbach, changing his name to Willoughby on emigrating to America in 1910. He was promoted Colonel (temp) on 14 October 1941, Brigadier General (temp) on 20 June 1942 and Major General (temp) on 17 March 1945. He reverted to Brigadier General (temp) on 31 May 1946 and Major General (temp) on 24 January 1948. He retired in 1951 as a Major General.


4 Introductory notes in Q.S. Lander Papers, United States Army, Military History Institute (USAMHI), Carlisle, PA. Furthermore, many basic publications were relied upon, such as those referred to in the Colonel Q. S. Lander and Lieutenant Colonel R. Noonan files held at USAMHI. These include *Private Pillsbury Goes to Australia*, designed to introduce soldiers to Australia, and "Nil Desperandum": the Story of an Outcast in New Caledonia, translated into English by T. Lefaud in 1943 which commences 'Once upon a time...'.


7 *Brief History*, Foreword by Major General Paul Mueller, CSC, Chief of Staff, General Headquarters, Far East Command, Tokyo, Japan, 10 June 1948.

8 www.vietnamnews.vnagency.com.vn/2001-07/05/Colums/In%History.htm.


10 I am indebted to Mr Gerry Walsh, Canberra, for this information.


14 RENO was the plan devised by Headquarters SWPA to regain the Philippines after MacArthur was ordered to depart the islands for Australia on 12 March 1942, following the Japanese invasion. The American forces in the Philippines
subsequently surrendered to the Japanese on 6 May 1942. RENO involved the use of bold manoeuvre warfare including 'leapfrogging' Japanese strong points in New Guinea and the islands south of the Philippines. The plan was constantly revised on five occasions: RENO I, 25 February 1943; RENO II, 3 August 1943; RENO III, 20 October 1943; RENO IV, February/March 1944; and, RENO V, 15 June 1944.


31 The AGS is also briefly mentioned in the introductory volume to the series, *A Brief History of the G-2 Section, GHQ, SWPA and Affiliated Units*, and in passing in
several of the other volumes. Although it appears that Willoughby intended this series for publication in a general history of ‘MacArthur's Intelligence Service 1941-1951’, it seems only to have found its way into archives and remains in typescript.

43 Further examples are the Battle of Cannae between Hannibal’s army and the Romans in 216BC, the Battle of Lake Trasimenus (Trasimeno) also between Hannibal and the Romans in 217BC, and the Battle of Agincourt (Azincourt) between the British and French in 1415AD.

Chapter 1: ‘A Unit is Born’ (August 1930 - October 1942)

46 GHQ, SWPA, Directives, *Brief History*, Appendix II, p. 3.
47 Francis, *Recollections*, pp. 73-76.
49 *Brief History*, p. 7.
50 AWM93 50/2/23/466, War of 1939-45 (Correspondence with Captain Peter A. Reid regarding a personal narrative on the AGS for the official history).
51 AWM93 50/2/23/466, War of 1939-45 (Correspondence with Captain Peter A. Reid regarding a personal narrative on the AGS for the official history).
52 *Brief History*, p. 1.
33 Brief History, pp. 1-2. Memo was signed by C.G.R. 28 March 1942. Colonel C.G. Roberts, MC was Deputy Director of Military Intelligence 1941-1942. He then assumed the appointment of Controller AIB 1942-1944. Brigadier J.D. Rogers, CBE, MC was Director Military Intelligence, Land Headquarters 1942-1945. See also, Thomson, Winning With Intelligence, pp. 142, 150 and 210, Dudley McCarthy, Australia in the War of 1939-1945, Series I (Army), Volume V: South West Pacific Area - First Year: Kikoda to Wau (Canberra: Australian War Memorial, 1962), p. 446, and Gavin Long, Australia in the War of 1939-1945, Series I (Army), Volume I: To Benghazi (Canberra: Australian War Memorial, 1952), p. 84.


35 Brief History, p. 1.


37 Mellor, Role of Science and Industry, p. 546.

38 Those present at this meeting were: Lieutenant Colonel Gray (AMF), Major Gallaheir (USA), Commander Gower (RAN), Lieutenant Mogg (RAN), Lieutenant Williams (AMF), Lieutenant Pollard (AMF), Lieutenant Commander Van der Krap (RN), Captain Reinderhoff (RNA) and Lieutenant Sjerp (RNA). The RAADF does not appear to have been represented. Brief History, pp. 2-3.


40 Brief History, pp. 1-2.

41 GHQ, SWPA, Directives, Brief History, Appendix II, pp. 1-2.

42 GHQ, SWPA, Directives, Brief History, Appendix II, pp. 1-2.

43 GHQ, SWPA, Directives, Brief History, Appendix II, pp. 1-2.

44 Brief History, p. 3.

45 Brief History, p. 3.

46 GHQ, SWPA, Directives, Brief History, Appendix II, p. 3.

47 Evan Mander-Jones (1902-1975), Educated at Sydney Church of England Grammar School (Shore) and the Universities of Sydney and Oxford. In the 1920s and 1930s he taught English and Latin at Shore and served as an officer in
the Militia. Called up for duty as an intelligence officer in November 1939, he transferred to AIF in May 1940 and in October deployed to the Middle East with HQ I Corps. Sent to Sumatra, NEI, he helped Dutch civilians and refugees from Malaya to escape the invading Japanese and helped destroy part of the Oosthaven. For his work in Sumatra he was appointed OBE. On his return to Australia he was promoted Lieutenant Colonel in April 1942 and began a series of staff appointments. In January 1945 he was appointed deputy-director military intelligence, Allied Forces, LHQ. After the war he was Director General of Education in South Australia, 1946-67. He died on 18 July 1975. John Ritchie (gen. ed.), *Australian Dictionary of Biography*, Volume 15, (Melbourne: Melbourne University Press, 2000), pp. 294-5.

68 *Brief History*, pp. 4-5.

69 GHQ, SWPA, Directives, *Brief History*, Appendix II, p. 3.

70 *Brief History*, p. 3.

71 *Brief History*, p. 5. In regard to command the Directive of 19 July 1942 says that ‘an AGS has been organised under the DMI, ALF (sic) (AMF), with Lieutenant Colonel Mander-Jones, in Command’. It then goes on to say that ‘the AGS will be responsible for the preparation of all terrain studies required by GHQ and subordinate Commands’ and ‘priorities for studies will be set by GHQ’.

72 This was outlined in correspondence between May and July 1943. *Brief History*, Appendix IV, pp. 1-4.

73 AWM93 50/2/23/466, War of 1939-45 (Correspondence with PA Reid regarding a personal narrative on the AGS for the official history).

74 AWM93 50/2/23/466, War of 1939-45 (Correspondence with PA Reid regarding a personal narrative on the AGS for the official history).

75 Colonel William Vere Jardine-Blake, (b. 1 February 1894, d. 2 November 1971). Service Number: VX90028. Second Lieutenant from 1911 in the 3rd, 18th, 19th and 20th (Parramatta) Infantry Battalions. Appointed Lieutenant (AIF) on 5 May 1915 and posted to D Company 20th Battalion in Egypt and Gallipoli from 26 June 1915 to 24 October 1915 before being evacuated from the Peninsula with Enteric fever (typhoid) and hospitalised in Malta. During this period he had served as the Intelligence Officer for the 20th Battalion from late-August to mid-October 1915. Jardine-Blake was promoted Captain on 1 October 1915. On 7 January 1916 he was transferred to a hospital at Heliopolis, Egypt. On 15 January 1916 he embarked for Australia by hospital ship ‘Karoola’ and arrived in Sydney on 1 March 1916 to take up an appointment as a Captain Company Commander in the 35th Battalion before returning to the European theatre. He was posted to England with the 3rd Australian Division before serving continuously in France between November 1916 and May 1918. He was promoted Major on 4 May 1917. During 1917 and 1918 he served as second in command, and in command, 35th Battalion at different periods. From August to October 1917 Jardine-Blake served on the instructional staff of the Central Training School at Le Havre (France). On 4 May 1918 he was transferred to England to command the 9th Training Battalion at Fovant (Wiltshire) until the unit was disbanded on 29 January 1919 at which time Jardine-Blake assumed duty as the Commandant,
2nd Training Brigade Concentration Depot, Codford (Wiltshire). Between the wars he worked as a Solicitor and Officer in British Colonial Service in the Solomon Islands. Refer to related appendix for information regarding his service in the Colony of Fiji, Western Pacific High Commission. He was appointment as Officer Commanding AGS on 1 August 1942 and promoted to Lieutenant Colonel on 22 March 1943 and Temporary Colonel on 22 December 1944. His duties with AGS saw him spend 152 days overseas in Hollandia, Leyte and Manila. On 5 June 1946 Jardine-Blake relinquished the rank of Temporary Colonel and was placed on RSL retirement. He was subsequently transferred to the Reserve of Officers (Australian Intelligence Corps) 3 Military District (MD) in Victoria on 11 July 1946 and granted the rank of Honorary Colonel. On 19 August 1947 he is transferred to 4 MD in South Australia before returning to 3MD on 7 March 1949. On 13 November 1946 Jardine-Blake was awarded the Australian Efficiency Decoration. He was also awarded the US Legion of Merit, Degree of Officer for services to the United States during his work as Officer Commanding the AGS on 18 August 1944 (although this was not gazetted until 10 April 1947). Jardine-Blake retired to Norton Summit, South Australia, before moving to ‘Roquebrune’, Kalorama near Melbourne. He then left Australia for the United Kingdom and lived at 39 Hare Hill Close, Pyrford in Woking, Surrey. He was married twice. His first wife was Frances Alice Jardine-Blake, who in 1942 was listed as living at V.A.D. Household Cavalry Hospital in Berks, England. His second was Isabelle Jardine-Blake. William Vere Jardine-Blake died on 2 November 1971, leaving behind his wife Isabelle. He had no children. Taken from ‘Surrey North Western’ Registration district, Sub-district ‘Woking’, Administrative area ‘County of Surrey’. See also, record of service held at Soldier Career Management Agency (SCMA)/Central Army Records Office (CARO), Melbourne, copy dated 16 February 2001 and Record of Service First and Second World War as well as Legion of Merit Certificate dated 18 August 1944 provided courtesy of David Helfgott, North Bondi, Sydney. For service in the Western Pacific High Commission see Colony of Fiji and Western Pacific High Commission, Civil List, Corrected up to 1st January, 1942, (Suva: By Authority - F.W. Smith, Government Printer, 1942), p. 292, located at the National Archives of the Solomon Islands.

Phone interview with Mrs W. Berchley of Innisfail, Queensland, 28 July 2003.


Brief History, p. 31.

Brief History (First Draft), MacArthur Memorial Library, Norfolk, VA, (no pagination).

Brief History, p. 31.
On p. 60 footnote 18-A of the Final Edit of the Brief History of G-2 Section, SWPA, MacArthur Memorial Library, Norfolk, Box 13 Folder 11 this sentiment is well expressed. Interpolations in Jardine-Blake’s own hand.

Brief History, p. 15.

Brief History, pp. 5-6.

Brief History (First Draft).

Rear Admiral Frederik Willem Coster (b. 16 February 1886, d. 23 June 1966). Coster was a Submariner and served as Marine Commandement Australie from 1 March 1942 to 1 May 1943.

Brief History, p. 34.

Brief History, p. 34.

Rear Admiral Pieter Koenraad (b. 6 June 1890, Dirksland, d. 22 February 1968, Las Palmas, Canary Islands).

Brief History (First Draft).

Brief History (First Draft).

Telephone conversation following receipt of letter from Patricia Sinden of Brisbane (formerly Corporal P.L.D. Power, AGS), 18 April 2001. She remembers Jardine-Blake’s attitude toward the Dutch by this remark made to her. This seems consistent with his remarks in the heavily edited ‘Dutch’ section of the First Draft of Brief History.

In Brief History (First Draft).

Brief History, pp. 54-55.

Information provided by J.A. de Moor, historian at the Institute for Military History of the Royal Dutch Army, 29 October 2003.


Captain Spoor was officially appointed Chief of Section I of NEFIS on 7 May 1943 a position that equated to Assistant Director. Information provided by J.A. de Moor, historian at the Institute for Military History of the Royal Dutch Army, 29 October 2003.

Admiral Conrad Emil Lambert Helfrich (b. 11 October 1886, Java, d. 20 September 1962, the Hague).


Information provided by Dr A.P. van Vliet, Director Institute for Maritime History, Royal Netherlands Navy, 4 November 2003.

Brief History (First Draft).

Francis, Recollections, p.80.

Francis, Recollections, pp. 90-93.
Chapter 2: 'Expansion to Dissolution' (October 1942 – January 1946)

Information provided by J.A. de Moor, historian at the Institute for Military History of the Royal Dutch Army, 29 October 2003.

AGS Final Progress Report, 15 September 1945.

Francis, Recollections, p.80.

Brief History, p. 33.

Brief History, p. 4.

GHQ, SWPA, Directives, Brief History, Appendix II, pp. 4-5.

Brief History, p. 6.

Mellor, Role of Science and Industry, p. 547.

112 Brief History, p. 55.

113 Dame Doris Alice Fitton (b. 3 November 1897, d. 2 April 1985). Married Norbert Mason in Sydney in 1922 and had two sons. Australian Women: Biographical Entry at http://www.womenaustralia.info/ biogs/IMP0028b.htm.

AGS Final Progress Report, 15 September 1945. See also AGS Regimental Orders.

See School of Public Health and Tropical Medicine, University of Sydney, Commonwealth Health Department, Service Publications No’s 1 – 6. Of specific interest: No. 2, R. Elliot Murray and I.F. Stephens, Plumbism and Chronic Nephritis in Young People, together with, A Method for the Estimation of Lead in Biological Materials, (Canberra: University of Sydney and Commonwealth Department of Health, 1939), No. 5, Frank H. Taylor and R. Elliot Murray, The Intermediary Hosts of Malaria in the Netherlands Indies with Notes on the Distribution of Malaria, (Canberra: University of Sydney and Commonwealth Department of Health, 1943/44), and No. 6, Frank H. Taylor and R. Elliot Murray, Spiders, Ticks and Mites, Including the Species Harmful to Man in Australia and New Guinea, (Canberra: University of Sydney and Commonwealth Department of Health, 1946).

Brief History, p. 56. See also AGS Regimental Orders.

Brief History, p. 56.

Francis, Recollections, p.74.

Brief History, p. 55. See also Box S-451, AGS Correspondence 1944-45, NARA.

Box T-1214, GHQ SWPA & USAFP General Correspondence 1942-46 (Battle Order & PI Teams), NARA.

Brief History, pp. 33-34.

Brief History, pp. 15 and 45. See also Box S-451, AGS Correspondence 1944-45 (Leyte, OC Forward Echelon), NARA. Report No. 62, AGS LO, dated 21 April 1945.

Brief History, p. 52.

Telephone conversation with Mrs Dorothy W. Berchley, Innisfail, Queensland, 19 April 2001. Mrs. Berchley recalled that Javanese nationals were being used as clerical staff within the Melbourne (NEI) Detachment.
Lieutenant Commander Fritz Julius Wissel (b. 21 January 1907, d. 9 October 1999).

Lieutenant General Simon H. Spoor, (b. 6 January 1902, d. 25 May 1949). Some speculation may have surrounded the General’s death. Francis, in *Recollections*, p. 92 writes that ‘soon after [Spoor’s] arrival in Java, the General and his party were assassinated by Indonesian irregulars. I was never to learn of the details, but there appeared no doubt as to the correctness of the information.’ J.A. de Moor, historian at the Institute for Military History of the Royal Dutch Army, advised on 29 October 2003 that ‘many wild stories and rumours have been circulating [about Spoor’s death], ranging from assassination and suicide to poisoning. Wonderful stories but plain nonsense.’

Interview with Mrs D.W. Berchley, Innisfail, Queensland, 19 April 2001. See also, Anton Ploeg, In Memoriam F.J. Wissel at www.kun.nl/cps/23/nb23e.html. Also, the ‘1942 Military Phone Book for Brisbane’ identifies Wissel as the NEFIS Liaison Officer to AGS. The ‘1943 Military Phone Book for Brisbane’ does not list a NEFIS Liaison Officer possibly because the AGS Melbourne Detachment had been formed in March 1943 from related NEFIS elements. The AGS Melbourne Detachment did not function effectively until December 1943 when the AGS (NEI Detachment) was formed.

*Brief History*, p. 52.

Information provided by Dr A.P. van Vliet, Director Institute for Maritime History, Royal Netherlands Navy, 21 March 2004.


Information provided by J.A. de Moor, historian at the Institute for Military History of the Royal Dutch Army, 24 October 2003.

*Brief History*, p. 36 (footnote).

*Brief History*, p. 81.


*Brief History*, pp. 37-38. A large amount of correspondence was raised concerning the treatment of geographical names. See, Box s-451, AGS Correspondence 1944-45 (Geographical Place Names December 1944-45), NARA. The mapping agencies under the OCE and Directorate of Survey, Australian Army were (1) OCE: 648th Engineer Base Topographical Battalion, 650th Engineer Topographical Battalion, 67th, 69th, 670th, 671st, 955th (Aviation) and 966th Corps Topographical Companies, and the 2773rd Engineer Reproduction Company; and (2) Directorate of Survey, Australian Army: 2/1st and 6th Australian Army Topographic Survey Company, 2nd, 3rd, 4th and 5th Field Survey Companies, 1st Australian Mobile Lithographic Section, and the Cartographic Company, Land Headquarters.

*Brief History*, pp. 37-38.

Francis, *Recollections*, p.76.

*Brief History*, pp. 42-43.

Refer to AGS Regimental Orders.
141 Brief History, pp. 46-48. Information on Sergeant Anthony Elephthere Pappadopoulos was located electronically at the Museum of Australian Military Intelligence, Canungra, Queensland.

142 Brief History, pp. 50-51. Appendix III, p.1, of Brief History contradicts this. It cites that there was one USN officer and one other rank on the consolidated table of organisation for the AGS as of 15 September 1945. Also, the AGS Souvenir Book names two USN personnel as being members of the section: Ensign B.H. Wabeke (Research); and, SP(X)2c J.W. Courtney.

143 Brief History, pp. 50-52.

144 Brief History, p. 46, pp. 50-51.

145 See also Box T-1211, GHQ SWPA & USAFP Correspondence 1942-46 (Assignment of Officers). This file outlines some of the staffing issues facing the AGS and requests for personnel.

146 Brief History, pp. 50-51.

147 Brief History, pp. 44-45.

148 Mrs M. (Agnes) Morrissey (formerly Corporal Perry, AGS Netherlands East Indies Detachment) of Kangaroo Flat interviewed by telephone on 21 May 2001, Mrs S. Vickers (NEI Detachment) of Melbourne interviewed 19 April 2001, Mrs Patricia Sinden (Brisbane and Melbourne HQ AGS) of Brisbane interviewed by telephone on 18 April 2001, and Mrs W. Berchley (Research Section), of Innisfail, interviewed by telephone on 19 April 2001 all talked of their disappointment at not being permitted to serve in Manila. They all joined the AWAS to serve and go anywhere and found it frustrating to be left in the Rear Echelon when the Forward Échelon went to Manila.

149 Brief History, pp. 48-49.

150 AWM93 50/2/23/466, War of 1939-45 (Correspondence with PA Reid regarding a personal narrative on the AGS for the official history). See also, 1942 Military Phone Book for Brisbane.

151 Hubert Leonard Murray (1886-1963), public servant and Administrator of Papua. He arrived in Port Moresby in February 1909 and became assistant and private secretary to his uncle, the Lieutenant Governor of Papua, Sir Hubert Murray. In his travels along the coast and island patrols he gained a detailed knowledge of Papua. He was a navigator on the government ship, E eleva, and a master of the Merrie England and the 150-ton Laurabada. He wrote Territory of Papua: Sailing Directions (Port Moresby, 1923 and 1930). Member of both the Executive and Legislative Councils in Port Moresby from 1925. With the formal declaration of military rule on 14 February 1942 he departed for Australia. In Sydney he approached General MacArthur and was employed in the AGS. He put his name forward in 1945 for the appointment of Administrator of Papua New Guinea, but was rejected. Australian Dictionary of Biography, Vol. 15, pp. 448-450.

152 H.L. Murray, Territory of Papua: Sailing Directions, (Port Moresby: Government Printer, 1930). See also, M2105 (M2105/1), Papers relating to of H.L. Murray’s service in the Hydrographic Section of AGS, Australian National Archives. Another officer, Captain W. Donk, is mentioned by Jardine-Blake in a letter to Murray dated 7 September 1945, as having been involved in AGS hydrographic work.
Interview by phone with Dr Alan Stephens, Australian Defence Force Academy, Canberra, 31 July 2003.

*Brief History*, pp. 48-50.

*Brief History*, Appendix IV, pp. 6-9.

*Brief History*, Appendix IV, pp. 1-4.

For a consolidated Table of Organisation and summary of expenditures for the AGS as at 15 August 1945 see *Brief History*, Appendix III, pp. 1-2.

*Brief History*, p. 58. See also AGS Regimental Orders.

### Chapter 3: ‘The Unit at Work’ – How the AGS functioned

*Brief History*, pp. 27-28.


*Brief History*, pp. 29-30. A large amount of correspondence was raised concerning the treatment of geographical names. Evidence of this can be found in Box s-451, AGS Correspondence 1944-45 (Geographical Place Names December 1944-45), NARA.

*Brief History*, p. 30.

Evidence of the incredible workload placed on AGS personnel is the fact that they received some priority in billeting for accommodation. In one request for the Billet of Major Russell on 22 February 1943 Jardine-Blake wrote, ‘Officers of this Section work long hours with frequently irregular meal hours. They are at call all hours and it is submitted that they should be accommodated in close proximity to the Section office. This principle has been accepted in relation to Australian Officers...’ See Box s-201, GHQ SWPA - Liaison Military Intelligence Service 1943-44 (Captain Russell and others), NARA.

AWM93 50/2/23/466, War of 1939-45 (Correspondence with PA Reid regarding a personal narrative on the AGS for the official history).

*Brief History*, p. 28.

John Stanley Cumpston (1909-1986), son of J.H.L Cumpston (b. 3 June 1909, d. 14 August 1986). Cumpston was educated at Wesley College and the University of Melbourne, graduating in Arts and Law. Prior to his service with the AGS he was a clerk, Crown Solicitor’s Office, Melbourne and Sydney, 1933-35 and he worked with the Department of External Affairs from 1935-39. Between 1940 and 1945 he saw service in the Middle East between 1940-43 as LO, HQ Aust. Inf. Bde.; Adjutant 26 Inf. Training Bn.; OC 9 Aust. Div. Ski Co; 2/23rd Aust Inf. Bn. He was mentioned in dispatches at Tobruk. Between 1943-45 he was attached to the AGS as an IO. His work with the AGS contributed materially to him being awarded a Doctorate of Letters from Melbourne University in 1948. Among the material he submitted for his doctorate were five AGS publications. After the war Cumpston served in Santiago, Chile (1946-49); he was official secretary to the High Commission in Wellington (1950-53); Australian Consul in Noumea (1953-58) and attached to the Department of Foreign Affairs and Trade Historical Section (1960-69). On retirement in 1969 he established the Roebuck Press which specialised in publishing Australian history. See: http://

167 WMM93 50/2/23/466, War of 1939-45 (Correspondence with PA Reid regarding a personal narrative on the AGS for the official history).

168 Information gained from Mr N. Whitelock, of Sydney, a former RAAF Corporal in AGS sent to the Philippines with the Photographic Section in 1945. Interviewed by phone, 10 April 2001. He spoke of serving with SGT later Sir Eric Willis, who became Premier of NSW. Another interview with Mrs W. Berchley, of Innisfail, 19 April 2001 revealed that Lieutenant Commander F.J. Wissel, Royal Netherlands Naval Reserve, was a senior member of the New Guinea Oil Company, who escaped from Netherlands by flying boat which was subsequently bombed in Broome Harbour. He had lakes named after him in Hollandia. Also, Major Russell was the Secretary to the Dean of Harvard. She also recalled the names of other prominent members as mentioned in the text.

169 Brief History, p. 43. Jardine-Blake states that three people took part in the commissioning initiative. On examination of unit Regimental Orders, only the two members mentioned could be identified. See also, AGS Regimental Orders.

170 Phone interview with Mrs W. Berchley, Innisfail, Queensland, 28 July 2003.

171 H.W. Ponder, Java pageant: a description of one of the world’s richest, most beautiful, yet little known islands; and the strange customs and beliefs, (2nd ed.) (London: Seeley Service, 1935).


174 Phone interview with Mrs W. Berchley, Innisfail, Queensland, 28 July 2003.

175 Information provided by Lindsay Foyle, The Australian, September 2003.

176 See AGS Instructional Memorandum No. 8-A entitled ‘Method of Treatment of Landing Beaches for AGS Publications’ (no date). The photos and considerations in this memorandum reflect changing methods and technologies. Box s-451, File 1 (Treatment of Landing Beaches, Instructional Memo No. 8-A and Photos), NARA. See also footnote 12.

177 Brief History, p. 12.

178 Brief History, p. 7.

179 Mellor, Role of Science and Industry, p. 546.

180 See Brief History, (First Draft), pp. 7-8.

181 Brief History, p. 13. It is worth noting that in the absence of suitably qualified military personnel, civilians with necessary qualifications for service with the AGS were not easily found.

182 Professor Martin Fritz Glaessner (b. 25 December 1906, d. 22 November 1989). Member of the Order of Australia (AM) 1985. Educated University of Vienna (LID 1929, PhD 1931). DSc, University of Melbourne 1948. Research Associate,
Department of Geology, Natural History Museum, Vienna 1923-32; Lecturer in Economic Geology, Volkshochschule [Adult Education Institute], Vienna 1930-31; research on fossil Crustacea, British Museum (Natural History), London, on behalf of the Trustees 1930-31; Senior Research Officer and Chief of the Micropalaeontological Laboratory, Moscow Petroleum Institute (Institute of Mineral Fuels, Academy of Science of the USSR from 1934) 1932-37; Senior Research Officer (part-time), Palaeontological Institute, Academy of Science of the USSR 1936-37; Lecturer in Palaeontology, Petroleum Institute, Moscow 1936-37; geologist, Anglo-Iranian Oil Company, later seconded to Australasian Petroleum Company, in charge of the company’s palaeontological laboratory, Port Moresby 1938-42; voluntary work on mineral resources for Directorate of Research, LHQ Australian Military Forces and for Allied Geographical Section, Melbourne 1942-45; Chief Palaeontologist, Australasian Petroleum Company 1942-50; Special Lecturer in Micropalaeontology, Postgraduate course, University of Melbourne 1946; Senior Lecturer in Palaeontology, University of Adelaide 1950-51, Reader in Palaeontology 1952, Reader in Geology and Palaeontology 1953-54, Professor 1964-71, Emeritus Professor from 1972. Fellow, Australian and New Zealand Association for the Advancement of Science 1951; Clarke Memorial Lecturer, Royal Society of New South Wales 1953; Fellow, Australian Academy of Science 1957; Walter Burfitt Prize, Royal Society of New South Wales 1962; Verco Medal, Royal Society of South Australia 1970; Fellow, German Academy of Natural Sciences Leopoldina 1971; ANZAAS Medal, Australian and New Zealand Association for the Advancement of Science 1980; Charles Doolittle Walcott Award and Medal, US National Academy of Sciences 1982. Chairman, Australian Academy of Science National Committee for Geological Sciences 1962-77. His book, *Principles of Micropalaeontology*, was published in 1945. Bright Sparcs Biographical Entry at http://www.asap.unimelb.edu.au/bsparcs/blogs/P000442b.htm.

183 *Brief History*, p. 13.
184 *Brief History*, p. 13.
185 *Brief History*, pp. 13-14.
186 Letter from Mr L.M. Modistach, 14 April 2001.
187 Telephone conversation with Mr Lindsay M. Modistach (formally a SGT and LT in the AGS, 1943-45) of Noosa Heads, 21 May 2001.
188 AWM93 50/2/23/466, War of 1939-45 (Correspondence with PA Reid regarding a personal narrative on the AGS for the official history).
189 *Brief History*, p. 12.
190 Information from Mrs W. Berchley, Innisfail, Queensland, 19 April 2001. She was formerly of the AWAS.
191 *Brief History*, p. 14. By the time of the major operations in New Guinea, such as Lae, Madang, and Wewak, the Section’s IOs were well versed in the art of interrogation.
192 *Brief History*, p. 14.
This was edited out from the First Draft, pp. 14-15. See also Brief History, p. 76.  
Brief History, p. 15.


Phone interview with Mrs W. Berchley, Innisfail, Queensland, 28 July 2003.


Evidence from Boxes G-1446 and 1448 (MIS-X Publications General), NARA.

AWM4 831/3/65 (AGS Reconnaissance Reports).

Telephone conversation with Mrs W. Berchley, Innisfail, Queensland, 19 April 2001. Further evidence of interaction (and exchange of information) between the various agencies within the Military Intelligence Section were shown in a letter by Jardine-Blake to Willoughby on 26 August 1943 which deals with the sending of Captain J.M. Russell to the USA on a research trip. It was said that prior to him departing he would be fully briefed by the AGS prior to consulting with other interested theatre ‘staffs (Engineers, A-2 (Air intelligence), NEFIS etc.’. On 27 February 1944, Lieutenant Colonel C. McVittie (Willoughby’s Chief of Staff at Headquarters SWPA) wrote to Willoughby with reference to Russell’s report on his visit overseas stating that the ‘Engineers are anxious to have a copy of this. I see no reason why they shouldn’t’. See Box, s-201, GHQ SWPA - Liaison Military Intelligence Service 1943-44 (Captain Russell and others), NARA. See also AGS Regimental Orders.

Contained in letter from Lieutenant Colonel McVittie to Jardine-Blake dated 19 May 1945. Nevertheless, by 21 July 1945 the Washington Liaison Officer (Pierce) wrote to Jardine-Blake telling of an incredibly successful visit to JICPOA’s Washington Liaison Officer Lieutenant W.C. Childs, United States Naval Reserve who offered to help the AGS in any way possible. The possibility of a United States Naval Liaison Officer being sent to AGS by JICPOA was tentatively discussed also. Box’s G-1445, G-2 General Correspondence 1944-46 (LTCOL McVittie’s Letters) and s-451, AGS Correspondence 1944-45 (LO Major Pierce), NARA.

Brief History, p. 15.

Brief History (First Draft), n.p.


Brief History, pp. 15-18, and p. 47.

Brief History, pp. 16-17.

Brief History (First Draft).
See Box s-201, GHQ SWPA - Liaison Military Intelligence Service 1943-44 (Captain Russell and others) as well as the other boxes cited which contain numerous praises for material uncovered in Washington by the AGS LOs.

Some of these agencies were: the Military Intelligence Service; Intelligence Section, Office of the Chief Engineer; Army Air Force Intelligence; Hydrographic Office; Coast and Geodetic Survey; Office of Naval Intelligence; Office of Strategic Services; Joint Chiefs of Staff; Dutch Missions; Board on Geographical Names; Department of Interior; National Archives; and, the Army War College, to name but a few. The extent to which these agencies contributed to AGS work can be clearly seen in a report by Major Russell for the use of future AGS LOs to Washington dated 5 September 1944. Box s-201, GHQ SWPA - Liaison Military Intelligence Service 1943-44 (Captain Russell and others).


See Box's; G-1445, G-2 General Correspondence 1944-46 (LTCOL McVittie's Letters); s-201, GHQ SWPA - Liaison Military Intelligence Service 1943-44 (Captain Russell and others); s-451, AGS Correspondence 1944-45 (LO Major Pierce); s-454, AGS Informal Memo's (LO USA Washington, D.C, LTCOL Tobin); and, s-452, SWPA, G-2 (OMURA-Major Navy Operations Stations for Landing Seaplanes), NARA.

See Box s-454, AGS Informal Memo's (Liaison Officer USA Washington, D.C, LTCOL Tobin), NARA.

Evidence of such correspondence can be found from NARA, Box s-451, AGS Correspondence 1944-45 'Oxford - Indian Correspondence 1946'. Also see box s-201, GHQ SWPA - Liaison Military Intelligence Service 1943-44 (Captain Russell and others). In a letter dated 17 February 1944 from Jardine-Blake to Willoughby the 'tentative arrangements entered into with ISTD (Oxford) to facilitate the exchange of information with AGS (in accordance with instruction of [General Willoughby] dated 6 December 1943)', is referred to.

This was edited out from First Draft of Brief History.

Edited out of the First Draft of Brief History.

Edited out of the First Draft of Brief History.

Brief History, p. 17.

Brief History, p. 9.

Brief History, p. 7. The OSS later became known as the Central Intelligence Agency (CIA).
A Basis for Victory: The Allied Geographical Section 1942-1946

224 History of the CIA’s World Factbook: http://www.wifak.uni-wuerzburg.de/fact98/history.html


226 History of the CIA’s World Factbook: http://www.wifak.uni-wuerzburg.de/fact98/history.html

227 Brief History, p. 18

228 Brief History, p. 18.

229 See Box G-1445, G-2 General Correspondence 1944-46 (LTCOL McVittie’s Letters), NARA.

230 See, Final Edit of Brief History of G-2 Section, Box 13 Folder 11, MacArthur Memorial, Norfolk, p. 45.

231 Box s-451, AGS Correspondence 1944-45 (LO Major Pierce), NARA.

232 See Box G-1445, G-2 General Correspondence 1944-46 (LTCOL McVittie’s Letters) and s-454, AGS Informal Memo’s (LO USA Washington, D.C, LTCOL Tobin), NARA. See also Box S-451, AGS Correspondence 1944-45 (Leyte, OC Forward Echelon), Report No. 55, AGS LO, dated 30 March 1945.

233 Box s-451, AGS Correspondence 1944-45 (LO Major Pierce), NARA.

234 An example is AGS Instructional Memorandum No. 8-A entitled ‘Method of Treatment of Landing Beaches for AGS Publications’ (no date). The table of contents covers such areas as the purpose of the memorandum, method of treatment for Terrain Studies, Special Reports, Handbooks, Spot Reports, and describing landing beaches. It also contains a variety of descriptive photographs such as varying types of landing craft and gradients of beaches. Box s-451, File 1 (Treatment of Landing Beaches, Instructional Memo No. 8-A and Photos), NARA. Also located are memos No. 1 ‘Areas for Paratroop Landings’ dated 26 January 1944; No. 2 ‘Choice of Areas for Radar Locations’ dated 26 January 1944; No. 3 ‘Landing Beaches for Seaplanes’ dated 26 January 1944; No. 4 ‘Operational Bases’ dated 29 January 1944; No. 5 ‘Airfields and Airdromes’ dated 3 February 1944; No. 6 ‘Roads and Bridges’ dated 11 February 1944; No. 7 ‘Camouflage and Concealment’ dated 1 March 1944; No. 9 ‘Notes on Use of Gliders in Tactical Operations’ dated 23 July 44; and, No. 10 - relating to nautical matters dated 30 January 1945. It must be appreciated that instructional memos 1-7, 9 and 10 were much smaller and less detailed than No. 8-A. In many cases they only totalled two pages and a few photographs. Interesting is the fact that a brief questionnaire was enclosed in each to test the user in their level of comprehension of the content. Box s-452, SWPA G-2 (AGS SWPA, Instructional Memorandums), NARA.

235 Brief History, pp. 24-25.


237 See Box G-1445, G-2 General Correspondence 1944-46 (LTCOL McVittie’s Letters), NARA. See also Francis, Recollections, p.74.
Chapter 4: ‘Basic Intelligence’ – Publications of the AGS

238 See Box G-1445, G-2 General Correspondence 1944-46 (LT COL McVittie’s Letters), NARA.

239 See Box G-1445, G-2 General Correspondence 1944-46 (LT COL McVittie’s Letters), NARA.

240 Brief History, p. 40.

241 Brief History, p. 54.

242 See Box G-1445, G-2 General Correspondence 1944-46 (LT COL McVittie’s Letters), NARA. Jardine-Blake wrote to McVittie on 21 May 1945.

243 See Box G-1445, G-2 General Correspondence 1944-46 (LT COL McVittie’s Letters), NARA. Jardine-Blake wrote to McVittie on 21 May 1945 that he ‘distrusted’ the officers involved in prioritising the air movement of AGS work and organisational requirements.

244 Francis, Recollections, p. 78.

245 Brief History, pp. 28-29.

246 Brief History, pp. 58-59. See also, AGS Final Progress Report, dated 15 September 1945. Box s-454, AGS Informal Memo’s (LO USA Washington, D.C, Lt Col. Tobin), NARA.

247 Brief History, p. 28.


The figure 111 includes the Report on Timor (the first AGS publication). This was most likely an early form of Area Study.

The figure of 104 includes the un-numbered Java-Servicemen Handbook, and Railways-Japan. Although not numbered, these publications would have been regarded as being Special Reports. Interestingly a 104th Special Report was published, No. 116, Shanghai (China) in January 1946. The AGS Final Progress Report was published before the existence of Special Report No. 116 and, incorrectly, did not include the various AGS booklets and railway publications as Special Reports. It also did not identify the existence of Java-Servicemen Handbook.

The figure of 66 includes three Handbooks, Nos 64, 81, 82 and 83, that were not identified in the AGS Final Progress Report. No Handbook No. 33 was produced. Although the index in the Final Progress Report records a total of 62 Terrain Handbooks being issued (Japan area: 0; Philippine Series: 24 and Areas South of Philippines: 38), it should be noted that in the same report the handbooks actually listed in the Philippine Series by title only total 23 issues. Hence, some doubt exists as to which figure (61 or 62 issues) is accurate. It has been assumed that 62 is the correct total as this is consistently used across publications. Final Progress Report, 15 September 1945.

These included, among others: Vegetation Study and Timber Resource Study - Philippine Islands as well as a series of timber identification cards for SWPA were produced in conjunction with the Commonwealth Council for Scientific and
Industrial Research. These were of value not only to ground troops but also air crews, photo interpreters, and other technical services; AD HOC Reports (223 were produced) on Malaya (1-79), Sumatra (1-105), Burma (1-4), Siam (1-28) and Indo-China (1-7); and Spot Reports (numbers 1 to 30). Final Progress Report, 15 September 1945. The Final Progress Report contains a list of all publications, index maps, and distribution charts, produced by the Section and an organisational diagram. The compilation of these publications and sources of information will be detailed in later chapters.

255 Brief History, p. 2.
256 Brief History, pp. 19-20.
257 Brief History, p. 19.
258 Brief History, p. 20.
259 GHQ, SWPA, Directives, Brief History, Appendix II, pp. 3-4.
260 AWM93 50/2/23/466, War of 1939-45 (Correspondence with PA Reid regarding a personal narrative on the AGS for the official history).
261 The first Terrain Handbook produced was AGS, SWPA, Terrain Handbook 1, Wau and the Gold Field Area, June 1st 1943.
263 Brief History, p. 18.
264 AWM93 50/2/23/466, War of 1939-45 (Correspondence with PA Reid regarding a personal narrative on the AGS for the official history).
265 Brief History, p. 22.
266 An example of such a report is entitled ‘Topographical Features of Tanimbar Island’. It covers landing points, beaches, jetties, aerodromes and a variety of other detailed information for tactical and operational needs. Box s-200, NARA.
267 Box s-452, NARA. Treatment of Landing Beaches, Instructional Memo No. 8A and Photographs.
268 Brief History, p. 8.
269 Final Progress Report, 15 September 1945.
270 Note: The AGS Final Progress Report records that only six editions of Sailing Directions were produced. A seventh publication (typescript, without an AHP number), Sailing Directions Netherlands Borneo, was later produced in October 1945 and not recorded. Note also that a typographical error is made in the diagram enclosed whereby the AGS is attributed as producing AHP’s 1-8.
271 Brief History, p. 22.
272 Brief History, p. 23.
273 F.E. Williams was the author of all three booklets, Getting About in New Guinea. See, Griffith, The Career of F.E. Williams and AWM93 50/2/23/466, War of 1939-45 (Correspondence with PA Reid regarding a personal narrative on the AGS for the official history).
which the AGS’s predecessor the Geographical Section would have undoubtedly played a key role as a sub-section of ATIS. “Operation Blacklist”, aimed to collect essential material for war crimes trials in both Germany and Japan. Documents were collected with the cooperation of US Army and Navy organisations such as the ATIS, JICPOA, SEATIC, SHAEF and others. A considerable quantity of material was collected between March and August 1946. Other agencies involved include the Map Service of the US Army.

Boxes G-1445, G-1455, T-1214, G-1453, s-132-136 and s-200, NARA, all contain information pertaining to the AGS supplement to the BLACKLIST and Order of Battle (ORBAT) ‘G-2 Estimate of the Enemy Situation’, and ‘Information Bullets’ which were produced on each operation or locality of interest by G-2 SWPA. Some examples include, G-2 Estimate of the enemy situation with respect to an operation against Aitape (26 January 1944) and Ramu Valley Activity (6 August 1943), among others. Also G-2 information bulletins: enemy activity Ramu-Markham River corridor (4 June 1943), Possibilities of Enemy Landings in Gulf of Papua to Attack Port Moresby (26 May 1942), to name two. AGS Terrain Studies and reports are referenced along with the geographic and topographic information extracted for specific use in these estimates.

Some examples of G-2 Estimates of the enemy situation with respect to BLACKLIST operations include: Kyushu-Honshu (24 March 1945); an operation against Southern Kyushu (25 April 1945); an operation against the Tokyo Plain of Honshu (31 May 1945); among several others. All used AGS publications as the basis of geographical planning, especially the Japan Series of ‘Special Reports’.

Chapter 5: ‘Hold Them Back’ – The AGS Contribution to Halting the Japanese Advance (June 1942-November 1943)

A number were located two of which were ‘Port Moresby to Wau Via Lakekamu River’ dated 25 September 1942 and ‘Overland Routes from Buna to Port Moresby, [n.d. September 1942?]. Box T-1220, GHQ SWPA and USAFP General Correspondence1942-46 (Route Moresby to Wau via Lakekamu River) & (Overland Routes from Buna to Port Moresby), NARA.

AGS, G-2, GHQ, SWPA, Terrain Study No. 12, ‘Area Study of Buna and Plains of Northern Division’, [? July 1942]. TS No. 12 superseded TS No. 4 [n.d. ? June 1942] and was later superseded by TS No. 27 on 18 October 1942. Date of TS No. 12 is unknown but is assumed to have been in July 1942 based on the fact that two known publications; TS 8, 28 June 1942; and, TS 15, 8 August 1942 were published in close proximity to this publication. Box T-1220, GHQ SWPA and USAFP General Correspondence1942-46 (Overland Routes from Buna to Port Moresby), NARA.

See Appendix B, Box T-1220, GHQ SWPA and USAFP General Correspondence1942-46 (Overland Routes from Buna to Port Moresby), NARA.

GHQ SWPA MIS, G-2 Information Bulletin, ‘Port Moresby to Wau Via Lakekamu River’ dated 25 September 1942. Box T-1220, GHQ SWPA and USAFP General Correspondence1942-46 (Route Moresby to Wau via Lakekamu River), NARA.
Box T-1220, GHQ SWPA and USAFP General Correspondence 1942-46 (Route Moresby to Wau via Lakekamu River), NARA.

Box T-1220, GHQ SWPA and USAFP General Correspondence 1942-46 (Overland Routes from Buna to Port Moresby), NARA. See also folders 2 & 3 in Box s-200, Intelligence Reports (Buna-Kokoda-Moresby: Additional and Miscellaneous), NARA. See also Box s-200 (Report on Madang), NARA.


AGS, G-2, GHQ, SWPA, *Terrain Study No. 4, Area Study of Buna and Plains of Northern Division*, 17 June 1942. Superseded by *Terrain Study No. 12, 24 July 1942 and Terrain Study No. 27, 18 October 1942*.


Winters, *Battling the Elements*, pp. 236-238.


See *Terrain Handbook No. 53, Cebu Island*, 8 January 1945, located in the F.H. Gilbert papers at the USAMHI, Carlisle. Also, in the study of SE Borneo some analysis of the Japanese dispositions were given when the employment of radar stations and Anti-Aircraft batteries was briefly described in some areas. Regardless, for enemy distributions and strengths the reader is still directed to see current intelligence summaries. See *Terrain Study No. 109, SE Borneo*, 15 January 1945.


Memo Jardine-Blake to Willoughby 'Extracts from Report of AGS LO in New Guinea' dated 22 October 1943. Box S-451 (AGS Correspondence 1944-45 G-2, GHQ - 6), NARA.


AGS, *Terrain Study No. 36, Area Study of Finschhafen and the Huon Peninsula*.

AWM93 50/2/23/466, War of 1939-45, Correspondence with PA Reid regarding a personal narrative on the AGS for the official history.

AGS, *Terrain Study No. 36*.

Chapter 6: 'To Japan' - The AGS Contribution to the Allied Offensive Against Japan (December 1943-August 1945)

301 Brief History, p. 14.
302 G-2, GHQ SWPA, AGS, Terrain Study No. 71, Northern Molukkas, 23 October 1943.
305 Winters, Battling the Elements, p. 220.
306 Winters, Battling the Elements, p. 220.
307 Winters, Battling the Elements, p. 224.
308 Winters, Battling the Elements, pp. 221-222. Charts for this area were over 100 years old having been produced by Lieutenant Charles Wilkes, USN, in 1841.
309 Winters, Battling the Elements, p. 222.
310 Smith, Coral and Brass, pp. 90-92. Higgins Boats, named after designer and builder, Andrew Higgins, were modelled on a prototype developed in 1926, being designed for use on the shallow waters of the Mississippi. It featured a unique spoonbill bow and did not attract serious USN attention until 1937. It was further modified with a ramp gate which allowed it to discharge men and cargo more effectively than 'over the side'. The craft was designated the LCVP (Landing Craft Vehicle, Personnel, Ramp) and was tested successfully by the USMC in 1942. In the opinion of General H.M. Smith, USMC the Higgins Boat 'contributed more to ... common victory than any other single peace of equipment used in the war'. Higgins was to provide the USN with a variety of other vessels during the war.
311 Winters, Battling the Elements, p. 222.
312 J.D. Hittle, 'Jomini and Amphibious Thought', Marine Corps Gazette, May 1938, pp. 35-38 (Located at the United States Military Academy, West Point). Antoine Henri Jomini's (1779-1869) famous book, Summary of the Art of War (1838), is perhaps his best remembered contribution to military theory. He spoke several times of 'the hazards of wind and sea to which landing forces are exposed' and that the sea would be forever the 'non-consistent' factor in amphibious planning. Jomini's principles for amphibious operations were five-fold; first, 'deceive the enemy as to the point of debarkation'; second, that a beach must be selected that has favourable hydrographic and terrain conditions by choosing 'an anchorage where the landing can be expeditiously executed'; third, 'vigorously push the attack'; fourth, 'early landing of artillery; and fifth, prompt seizure of ground to permit the development of the attack'. His thinking was radical and well ahead of its time. Jomini was author of a long and important list of publications which for over a quarter of a century played a leading part in forming military thought of the era.
313 Winters, Battling the Elements, p. 221. Doctrine for amphibious operations during the war was developed largely by the United States Marine Corps between 1926
and 1935. The only previous modern amphibious operation being the disastrous Gallipoli campaign in 1915.

Winters, Battling the Elements, p. 221.


Terrain Study No. 71, p. 7.


Terrain Handbook No. 30, map 2 and Photos 5-10 & 17.


Terrain Handbook No. 30, map 2 and Photos 5-10 & 17.


Terrain Study No. 71, p. 7.

Terrain Study No. 71, p. 7.


Terrain Handbook No. 30, map 1 and Photos 1A-4, & 17.

Terrain Study No 71, pp. 3-4. Australian Defence Force Academy Library, Canberra.

Smith, U.S. Army in World War II, pp. 483-493 (See also Map 20).


Terrain Study No. 71, p. 9.


Long, Six Years War, pp. 449-451.

G-2, GHQ SWPA, AGS, Terrain Handbook No. 61, Tarakan, 26 February 1945.

Terrain Handbook No. 61, pp. 19-20, map 7; photos 5, 6, 8-12.

Terrain Handbook No. 61, See 'Landing Beach Summary' enclosed.

Terrain Handbook No. 61, p. 19.

Terrain Handbook No. 61, photograph 8.

Terrain Handbook No. 61, photograph 8.

Terrain Handbook No. 61, p. 19.

Assumption based on description in Terrain Handbook No. 61 and translated to map in Long's, Six Years War, p. 449.
Chapter 7: To What Avail? Operational Assessment of the AGS

[358] Minute from Jardine-Blake to Willoughby, dated 11 November 1943, NARA. A Request to secure an exchange of officers of organisations engaged in Geographical Intelligence in different theatres to secure information on SWPA and make available to other areas relevant information available in SWPA. Blake, in his Brief History, describes the failure of such attempts. Box S-451 (AGS Correspondence 1944-45), NARA.

[359] GHQ, United States Army Forces, Pacific, Office of the Chief Engineer, Engineer Intelligence Division (EID), 'Field Investigation Report, Balikpapan, Borneo, N.E.I.', dated 4 September 1945. This report is written by a team sent to investigate the accuracy of information provided by the EID in the reports: Terrain Evaluation No. 109A, Beach Approach Photography No. 109B, and Industrial Study No. 5. It is assumed that 109A and 109B were utilised as Engineer annexes to Terrain Study No. 109, South Eastern Borneo, dated 15 January 1945. The report finds that the EID information being checked is, with minor exception, almost completely correct in its estimates and information. Box T-126 (GHQ, SWPA and USAFP General Correspondence 42-46: Collection of Military Information), NARA.


[361] AWM54 831/3/65 (AGS Reconnaissance Reports).

[362] AWM54 831/3/65 (AGS Reconnaissance Reports). This record contains a comparison of a HQ NGF Special Report and AGS Special Report No. 20. The AGS
A Basis for Victory: The Allied Geographical Section 1942-1946

The report is shown through close examination to be superior and more accurately compiled. This is but one of many examples.


Copy of Terrain Study No. 66, Ramu-Markham Valley with link to Madang, 25 November 1942 located at Special Collections, Australian Defence Force Academy Library, Canberra.

Captain M. White II, Field Artillery, 7th Australian Division, ‘Terrain, 7th Australian Division, Operational Area’.


The following account is from: Memo Jardine-Blake to Willoughby ‘Extracts from Report of AGS LO in New Guinea’ dated 22 October 1943. Box S-451 (AGS Correspondence 1944-45 G-2, GHQ - 6), NARA. See also AGS Regimental Orders.


Box G-1445, G-2 General Correspondence 1944-46 (Willoughby’s Memos), NARA.

Daniel E. Barbey (b. 23 December 1889, Oregon, d. 11 March 1969, Bremerton, Washington). Served as Staff Officer to Admiral Ernest King (May to December 1942) before being appointed Commander 7th Amphibious Force SWPA on 8 January 1943. Barbey directed a number of successful operations in SWPA including the final amphibious assault of the war at Balikpapan - Borneo.


Brief History, Appendix IX.

Conclusion

Brief History, p. 61.

Brief History, p. 61.

Brief History, pp. 61-62.

Brief History, p. 67.

Francis, Recollections, p. 90.
Francis, Recollections, p. 94; E. Andrews, The Department of Defence, Volume V, The Centenary History of Defence, (Melbourne: Oxford University Press, 2001), p. 187 and p. 265; DIO homepage: http://www.defence.gov.au/dio; and, E:\_source\opera\REPORT\F.Roles of Army Officers.doc dated 08 October 1999. See also Box s-454, AGS Informal Memo’s (LO USA Washington, D.C, LTCOL Tobin). See also, AWM 113 10/9/1 DMI and AGS files – transfer to AWM. Two copies of each Terrain Study were set aside by AGS for the Military History Section, Army HQ, Victoria Barracks Melbourne. This file also contains correspondence dated 25 March 1947 detailing the intention to incorporate the AGS into the JIB.

Francis, Recollections, p. 90.

Francis, Recollections, p. 92. See also AGS Regimental Orders.

Francis, Recollections, p. 94; also see Andrews, The Department of Defence, p. 187 and p. 265; DIO homepage: http://www.defence.gov.au/dio; and, E:\_source\opera\REPORT\F.Roles of Army Officers.doc dated 08 October 1999. See also Box s-454, AGS Informal Memo’s (LO USA Washington, D.C, LTCOL Tobin).

For further reading on the contemporary legacy of the AGS in theatres such as Korea, Malaysia, Vietnam and East Timor see: Brief History, pp. 64-66 for Publications completed by the Geographical Section up until publication of Brief History; For Korea, three Special Reports were completed by the AGS on key areas of Korea. These were, Pusan, Kunsan and Kyongsong; For Malaysia, a pamphlet designed for the use of troops and police in the Malayan Confrontation (8919-5M-4/64) signed by Director of Borneo Operations and dated 15 April 1964 demonstrates the legacy of AGS work through its similar format and intent to the booklets produced by the AGS for ‘Hearts and Minds’; For Vietnam, Major J. Fletcher, Intelligence: A Principle of War, in Army Journal, No. 247, December 1969. Also, Area Handbooks for North (& South) Vietnam, Foreign Area Studies, The American University, 1967; For East Timor see, Major J. Blaxland, ‘On Operations in East Timor: The Experiences of the Intelligence Officer, 3rd Brigade’, in Army Journal, Issue 2000.


In 1945 the Australian government set up the School of Civil Affairs in Canberra. Its aim was to train administrative officers for Papua and New Guinea – initially for ANGAU and later for the post-war administrators of these territories. The School transferred to Sydney (Mosman) in 1946. For some time it was co-located with the School of Military Intelligence, as the Australian School of Pacific Administration (ASOPA). The School had a training function (teachers, patrol officers etc.) but was also a centre for the study of colonial problems. Paul Hasluck, A Time for Building, Australian Administration in Papua and New Guinea 1951-1963, (Melbourne: Melbourne University Press, 1976), p. 65.

Brief History, Appendix IX.
The Legion of Merit was the first US decoration created specifically as an award for citizens of other nations, and was the first award to have different classes. Executive Order 9260, dated 29 October 1942, and endorsed by President Roosevelt, established the rules for the Legion of Merit. It was awarded to people who have distinguished themselves by exceptionally meritorious conduct in the performance of outstanding services. Awards of the decoration of the Legion of Merit could be proposed to the President by the Secretaries of the Army, Navy, and Air Force, each acting upon the recommendation of an officer of the armed forces of the United States who has personal knowledge of the services of the person recommended. Degree of Officer was usually awarded to foreign generals or admirals, high ranking civil authorities and foreign attaches.

AWM 119 US14. Correspondence relating to the conferral of the Legion of Merit (US) award on Colonel W.V. Jardine-Blake.


Willoughby, Brief History of the G-2 Section, p. 62.


Winters, Weather and Terrain, p. 4.


### APPENDIX 1

### THE PUBLICATIONS OF THE AGS

**Allied Geographical Section, South West Pacific Area:**
**Terrain Studies (TS)**

Note: Items marked with (*) could not be located to confirm publication date

<table>
<thead>
<tr>
<th>TS No.</th>
<th>TS Title.</th>
<th>Date Published</th>
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<tr>
<td>N/A</td>
<td>Report on Timor</td>
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<tr>
<td>1</td>
<td>Rabaul, Gasmata, New Ireland Locality Study (Locality Study) later superseded by 52, 60 and 74</td>
<td>14 June 1942</td>
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<tr>
<td>2</td>
<td>Babo, (Locality Study) later superseded by 37</td>
<td>June 1942</td>
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<td>3</td>
<td>Manus, (Locality Study) later superseded by 67</td>
<td>June 1942</td>
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<tr>
<td>4</td>
<td>Buna and Plains of Northern Division (Locality Study) later superseded by 12 and 27</td>
<td>17 June 1942</td>
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<tr>
<td>5</td>
<td>Lae, Salamaua, Madang, Wewak, (Locality Study) later superseded by 32, 33, 59, 69 and 76</td>
<td>23 June 1942</td>
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<td>6*</td>
<td>Tulagi, (Locality Study) later superseded by 11</td>
<td>June 1942?</td>
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<td>7</td>
<td>Rabaul, Gasmata, (Locality Study) later superseded by 60 and 74</td>
<td>28 June 1942</td>
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<td>8</td>
<td>New Ireland, (Locality Study) later superseded by 52</td>
<td>28 June 1942</td>
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<td>9</td>
<td>Lae and Salamaua, (Locality Study) later superseded by 32 and 33</td>
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<td>South New Guinea, (Locality Study)</td>
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<td>11</td>
<td>Guadalcanal (Area Study)</td>
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<tr>
<td>12</td>
<td>Buna, (Locality Study) later superseded by 27</td>
<td>24 July 1942</td>
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<td>13</td>
<td>Kai Islands, (Locality Study) later superseded by 56</td>
<td>17 July 1942</td>
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<td>14</td>
<td>Fak Fak, (Locality Study) later superseded by 37</td>
<td>30 July 1942</td>
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<td>15</td>
<td>Mandated Solomons, (Area Study) later superseded by 41, including: Buka, Faisi, Kieta.</td>
<td>8 August 1942</td>
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<td>16</td>
<td>Salamaua, (Locality Study) later superseded by 33</td>
<td>15 August 1942</td>
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<td>17</td>
<td>Lae, (Locality Study) later superseded by 32</td>
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<td>18</td>
<td>Choiseul, (Area Study) later superseded by 48</td>
<td>30 August 1942</td>
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<td>19</td>
<td>New Georgia, (Area Study) later superseded by 54</td>
<td>30 August 1942</td>
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<td>20</td>
<td>Ysabel, (Area Study) later superseded by 39</td>
<td>30 August 1942</td>
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<td>21</td>
<td>Central Dutch New Guinea (locality Study) (sub-division Wissel Lakes). Superceded by 68</td>
<td>9 September 1942</td>
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Gazelle peninsula & Rabaul (Area Study). Superseded by 74
D'entrecasteaux & Trobriand Islands (Area Study), including: Goodenough Island, Fergusson Island, Normanby Island, Trobriands Island
Talasea (Locality Study). Superseded by 64
Cape Gloucester (Locality Study). Superseded by 63
Gasmata (Locality Study). Superseded by 60
Buna [revised] (Area Study)
Main Routes Across New Guinea (Locality Study)
Tual Subdivision Tanimabar (Locality Study) Superseded by 87
Madang (Locality Study) Superseded by 59 and 69
Lae (Revised) & The Lower Markham Valley Locality Study)
Salamaua (Revised) (Locality Study)
Louisiaade Archipelago (Area Study), including: Misima Island, Deboyne & Torlesse Islands, Renard Islands, Rossel Island, Calvados Chain, Sudest Island
Woodlark Island and Other Islands (Area Study), including: Marshall, Bennet, Laughlan, Egum & Alcester Groups
Finschhafen & the Huon Peninsula (Area Study)
Bomberai Peninsula - Netherlands New Guinea (Area Study), including: The Bomerai Peninsula
Aroe Islands (Area Study) Superseded by Special Report 42
Ysabel (Revised) (Area Study), including: Solomon Islands
New Georgia (Revised) (Area Study) Superseded by 54. including: Gatukai Island, Vangunu Island, New Georgia & Roviana Lagoon, Tetipari Island, Rendova Island, Baanga & Woodford (Paru) Islands, Wana Wana Lagoon (Wana Wana & Arundel Islands), Gizo, Kolombangara, Simbo, Ganongga, ella Lavella
The Mandated Solomons & the Shortland Islands (Area Study), including: Buka Passage, Kieta, Buin/Faisi Area (Revised)
Marobe - Waria Valley & Adjacent Catchment Areas (Area Study)
Manus & Western Islands (Area Study) Superseded by 67. including: Nauna, Los Reyes,
Tong, Pak, Rambutyo, Horno, Fedarb and St Andrew’s Island, Lou, Baluan & Mok, Alim, Purdy Island, Mbu ke Sisi Liu, Hermit Island (Maron), Kaniet (Anchorites), Ninigo Islands, Liot, Awin, Manu (Allison), Aua, Wuvulu (Matty), Los Negros, Pityilu, Ponam – Islands

44 Merauke (Locality Study) superseded by 55
45 Ambon Island (Area Study)
46 The Vogelkop & Salawato Islands – Netherlands East Indies (Area Study)
47 Russell Islands (Area Study)
49 The Markham Catchment (Area Study)
50 Portuguese Timor (Area Study)
51 Eastern New Britain Excluding: Gazelle Peninsula (Area Study) Superseded by Special Report 63
52 New Ireland (Area Study)
53 Tanimbar Islands - Netherlands East Indies (Area Study), Superseded by Special Report 37
54 New Georgia Group (2nd Revision) (Area Study)
55 South-west New Guinea (Area Study)
56 Kai Islands - Netherlands East Indies (Area Study) superseded by Special Report 49. Including: Koer-Drie Gebroeders Group, Tajandoe Group, Noehoe Rowa (Little Kai) Group, Noehoe Tjoet (Great Kai) Group
57 Western New Britain (Area Study), Excluding: Cape Gloucester, Including: Garove Island, Witu Islands, Unea Island, Narega Island, Sands Island, Mundua Island, Umboi (Rooke) Island, Siasii Islands, Tolokiwa, Sakar & Ritter Islands, Unaga, Chilling & Wambu Islands
58 South-western Islands (Islands N.E. of Timor) (Area Study). Including: Wetar (& Lirah), Romang (Roma) Group, Damar Group, Kisor Island, Leti Islands (Leti, Moa, Lakor), Sermata Islands (Island Sermata,Loeang – Kalapa Group & Meatij Miarrang), Babar Islands (Barbar, Wetan, Dai,Dawera, Daweloor, Masela)
59 Madang - Vol.1 (text & maps) (Area Study), including: Long Island, Crown Island and Kankow Reef, Bagabag Island, Karkar Island, Manam (Vulcan) Island
Madang - Vol.2 (photographs)
61 Northeastern Netherlands New Guinea & Geelvink Bay (Area Study)
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<td>61C</td>
<td>Photographic Annex - Impedi Village to Menoerwar Village</td>
<td>20 May 1944</td>
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<td>New Hanover (Area Study), including: Islands North &amp; East of New Ireland St., Matthias Group (Emirau, Mussau &amp; Tench Islands)</td>
<td>18 August 1943</td>
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<td>Cape Gloucester (revised) (Area Study)</td>
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<td>64</td>
<td>Talasea (revised) (Locality Study)</td>
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<td>The Sepik District - Vol.1 (text &amp; maps) (Area Study), including: The Schosten Islands, Kairiru &amp; Nearby Islands</td>
<td>6 October 1943</td>
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<td>The Sepik District - Vol.2 (photographs) Engineer Annex</td>
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<td>66</td>
<td>Ramu - Markham Valley with link to Madang (Locality Study)</td>
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<td>The Admiralty Islands (Area Study), including: Manus &amp; Adjoining Islands, Eastern Islands, Southern Islands, South-eastern Islands, Western Islands</td>
<td>20 September 1943</td>
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<td>68</td>
<td>Central Dutch New Guinea (sub-division Wissel Lakes) (Area Study)</td>
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<td>69</td>
<td>Madang (Locality Study)</td>
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<td>70</td>
<td>Dutch Timor, Netherlands East Indies (Area Study), including: Samaoe Island, Kambing Island, Taboei Island, Kera Island, Tikoes Island, Bueroeng Island, Batek (Gala Bata) Island, Portuguese Province of Ocussi</td>
<td>19 November 1943</td>
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<td>Northern Molukkas (Area Study). Excluding: Soela Islands, including: Morotai Island, Halmahera Island, Ternate Island, Tidore Island, Batjan Group, Obi Islands, Adjacent Islands of lesser importance (Excluding: Soela Islands)</td>
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<td>Hansa Bay - Vol.2 (photographs)</td>
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<td>73</td>
<td>Seran (Ceram) &amp; Adjacent Islands (Area Study). Excluding: Ambon, Boeroe, Haroeoe, Saparoea, Including: Boano Island, Kelang Island, Manipa Island, Seran Laoet Group, Goram Group, Watoebela Group</td>
<td>6 December 1943</td>
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<td>Gazelle Peninsula - Vol.1 (text &amp; maps) (Area Study)</td>
<td>1 December 1943</td>
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<td>Duke of York Group</td>
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<td>Kavieng (Locality Study), including: East Coast, West Coast, Inter Island Area</td>
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<td>Aitape - Wamino (Locality Study)</td>
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<td>Hollandia (Dutch New Guinea) (Locality Study)</td>
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<td>Hollandia - Photographic Annex, including: Tami River to Cape Djar, Cape Djar to Cape Soeadja, Cape Tanahmerah to Iris Bay</td>
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<td>Radja Ampat Group (Area Study), including: Misool &amp; Adjacent Islands, Batanta &amp; Adjacent Islands, Waigeo &amp; Adjacent Islands, Boo Kofiau, Jef Doef, Jef Fam Groups, Gag Island, Gebe &amp; Adjacent Islands, Ajo &amp; Asia Islands, Helen Reef, Tobi Island</td>
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<td>80</td>
<td>Mindanao Island - Vol.1 (text &amp; maps) (Philippine Series), including: Dinagat, Siargao &amp; Bucas Islands</td>
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<td>Mindanao Island - Vol.2 (photographs), excluding: Misamis Occidental, including: Agusan Province, Bukidnon Province, Cotabato Province, Davao Province, Lanao Province, Surigao Province, Misamis Oriental, Zamboango, Dinagat Island</td>
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<td>Kaoe Bay (Locality Study)</td>
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<td>Talaul &amp; Sangihe Islands (Locality Study) superseded by Terrain Handbook 32. Including: Kawio Islands, Nanoesa Islands, Miangas (Palmas) Island</td>
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<td>83</td>
<td>Menado (Celebes)</td>
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<td>Leyte Province (Philippine Series)</td>
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<td>S.E. Luzon [Bicols] (Philippine Series)</td>
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<td>Cagayan Valley (Philippine Series), including: Cagayan Provinces, Isabela Provinces, Nueva Vizcaya Provinces, Palaui Island</td>
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<td>Cagayan Valley (map supplement) (Philippine Series)</td>
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<td>Tanimbar Islands - Netherlands East Indies (revised) (Area Study), including: Silaroe Island, Jamdena &amp; surrounding Islands</td>
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<td>Samar Province (Philippine Series)</td>
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<td>Sarawak &amp; Brunei - Vol.1 (text &amp; maps), including: Labuan Island</td>
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<td>Sarawak &amp; Brunei - Vol.2 (photographs)</td>
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<td>North Borneo, including: Tarakan Island</td>
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<tr>
<td>91</td>
<td>Tayabas Province (Philippine Series), including: Central Luzon - East Coast, Polillo Islands, Abat Islands, Balesin Islands, surrounding Islands</td>
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116 Shanghai (China) January 1946

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1 Friendly Fruits and Vegetables (General Staff, LHQ, Australia on authority ALF SWPA) - Useful plants of New Guinea and Adjacent Islands [probable un-attributed AGS publication]. 31 May 1943
Vegetation Study, Philippines 25 September 1944
Timber Resources Study, Philippines 25 September 1944
2 Sailing Directions, Passages through the Great Barrier Reef, Australian Hydrographic Publication (AHP) 1 1943
Sailing Directions (part 1) North East New Guinea-Area (AHP) 2 1943
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APPENDIX 2

CONSOLIDATED LIST OF KNOWN AGS PERSONNEL
TO SEPTEMBER 1945

(Based on AGS Souvenir Book with minor additions and amendments)

INTELLIGENCE OFFICERS (IOs) ARE IN BOLD

ADVANCED ECHELON

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33. GUDGEON, Russell D., Maj., (US) (IO)
34. HAEGE, Robert E., Tec 5, (US) (Typing Pool)
35. Haire, J.T., Lt, (AIF) (IO)
36. HANSFORD, G.B., S/Sgt, (AIF) (IO)
37. HATTER, J.R., Sgt, (AIF) (Distribution)
38. HAUSER, Henry F., Maj., (US) (PI)
39. HAYES, C.M., Capt., (AIF) (IO)
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41. HERALD, A.A., Maj., (AIF) (IO)
42. HILL, F.P., Sgt, (AIF) (Drafting)
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44. HINTON, R., Sgt, (AIF) (Drafting)
45. HUETER, Ernest B., Maj., (US) (Amphibious Section)
46. HUEY, B.W.A., Sgt, (AIF) (IO)
47. HUGHES, J., Cpl, (AIF) (Drafting)
48. IBARRA, Raul, Tec 5, (US) (Reproduction)
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53. KRUTZKE, Herbert G., Capt., (US) (PI)
54. KUYKENDALL, Kenneth A., 2nd Lt, (US) (PI)
55. LAU, Wilson B., 1st Lt, (US) (Administration)
56. LEAR, J.C.R., Cpl, (AIF) (Maps)
57. LEVY, Henry Jr, Tec 5, (US) (Research)
58. LEWANDOWSKI, Henry, Cpl, (US) (PI)
59. MAHER, J.E., Capt., (AIF) (IO)
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61. MARQUART, Otto, 1st Lt, (US) (IO)
62. McCABE, Cornelius T., 1st Lt, (US) (LO)
63. McMANAMON, James E., Tec 4, (US) (PI)
64. MITCHELL, James A., 1st Lt, (US) (PI)
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66. MOREAU, Hector A., 1st Lt, (US) (PI)
67. NEUMANN, S.R., Cpl, (AIF) (Distribution)
68. NEWMAN, F.F., F/O, (RAAF) (IO)
69. NEWHAM, N.W., Sgt, (AIF) (IO)
70. OFFERMAN, Henry, Pvt., (US) (Typing Pool)
A Basis for Victory: The Allied Geographical Section 1942-1946

71. O'HALLORAN, J., Cpl, (AIF) (Drafting)
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76. PIERCE, Wilbur J., Maj., (US) (LO)
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78. POST, Donald A., Tec 5, (US) (Distribution)
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113. WOLCOTT, Roger D., Maj., (US) (IO)
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78. HOOGENKAMP, J.G., S/Lt, (RNN) (Informants)
79. HORN, Elsa, Miss, (Typing Pool)
80. HORSTINK, M., Capt., (NEI) (IO)
81. IRVING, Dorothy Wendy, Sgt, (AWAS) (Research)
82. ISAACS, W.R.E., Maj., (AIF) (IO)
83. JARROTT, M.R., Pte, (AIF) (Informants)
84. JOHNSON, Edith D., Mrs, (Typing Pool)
85. JOHNSON, Kathleen Margaret, Cpl, (AWAS) (Maps)
86. JOHNSTONE, (nee Smiles), Dorothy Anne, Sgt, (AWAS) (Records)
87. KING (nee Warner), Mabel Jean, Pte, (AWAS) (Administration)
88. KLEERKOPER, S.E., 2nd Lt, (NEI) (IO)
89. LANCELOT, M., Vdg, (IO)
90. LASKIE, R.J., WOII, (AIF) (Drafting)
91. LEE, Nita Lorraine, ACW, (WAAF) (Research)
92. LEMP, Lilian Susan, Pte, (AWAS) (Administration)
93. LINDSAY, M.C., Cpl, (AIF) (Drafting)
94. LOCHER, G.W., Dr, (IO) (NEI Government Anthropologist)
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99. McMaster, Rita, Miss, (Typing Pool)
100. MACROBERT, I., Lt, (RANVR) (IO)
101. MACE, N., Maj., (British Army) (IO)
102. MARSHALL, A.J., Capt., (AIF) (IO)
103. MARTIN, Margaret, Cpl, (AWAS) (Administration)
104. MASON, N.K., Capt, Capt., (AIF) (OC Sydney Detachment)
105. MASON, T.G., Mr, (IO)
106. MAY, T.B., Flg Off, (RAAF) (IO)
107. MILLARD, Lola Shirley, Miss, (Typing Pool)
108. MILLER, H.A., Mr, (IO)
109. MILLS, S.W., Lt, (AIF) (Reproduction)
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135. ROSENBERG, June, Cpl, (WAAF) (Administration)
136. ROSENOW, Margaret Ann, Pte, (AWAS)
137. ROUTLEY, W.F., Lt Col, (AIF) (Engineer Officer)
138. RUSSELL, J.N., Maj., (US) (LO)
139. RYCROFT, A.J., Lt, (RANVR) (IO)
140. RYDER, P., Pte, (AWAS) (Administration)
141. SANTOS DE SOUSA, A., Mr, (IO)
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143. SCHOLTE, A., Adjudant, (Informants)
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155. TURTON, (nee Frazer) Vida F.B., Lt, (AWAS) (Adjutant)
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161. VANDERPOOL, J.L., Cpl, (US) (Driver)
162. VAUGHAN, M.M., Pte, (AWAS) (Administration)
163. VEAL, June, Miss, (Typing Pool)
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174. WILSON, G., LAC, (RAAF)
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180. WRIGHT, J.J.H., WOII, (AIF) (Drafting)
181. WRIGHT, L.W.S., Lt Cdr, (Retd), (RN) (IO)
182. YOUNG, Violet, Cpl, (AWAS) (Administration)
APPENDIX 3

RECORD OF SERVICE IN THE COLONY OF FIJI AND WESTERN PACIFIC HIGH COMMISSION: WILLIAM VERE JARDINE-BLAKE

WILLIAM VERE JARDINE BLAKE. Born February 1, 1892 (sic). M. Assistant Treasurer and Collector of Customs. £600 and quarters. (£500 x £20 - £600 x £25 - £700.) Receives also a local allowance of £50.

<table>
<thead>
<tr>
<th>DATE</th>
<th>POSITION HELD</th>
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<tbody>
<tr>
<td>16 April, 1921</td>
<td>Sub-Inspector of [Coastabulary] Constabulary.</td>
</tr>
<tr>
<td>26 April, 1921</td>
<td>Assumed duty.</td>
</tr>
<tr>
<td>6 May, 1921</td>
<td>Sanitary Officer of the Sanitary District of Tulagi, (conjoint).</td>
</tr>
<tr>
<td>12 October, 1921</td>
<td>Acting Postmaster to 28th January, 1922.</td>
</tr>
<tr>
<td>5 May, 1922</td>
<td>Acting Officer in Command of Constabulary and Superintendent of Prisons to 19th September, 1922.</td>
</tr>
<tr>
<td>3 October, 1922</td>
<td>Sanitary Officer for the Sanitary District of Tulagi, including the islands of Nggela and Savo (conjoint) to 20th October, 1925.</td>
</tr>
<tr>
<td>6 October, 1922</td>
<td>Acting District Officer, Gizo to 22 November, 1922.</td>
</tr>
<tr>
<td>1 April, 1923</td>
<td>Postmaster</td>
</tr>
<tr>
<td>16 April, 1924</td>
<td>Appointment Confirmed</td>
</tr>
<tr>
<td>2 August, 1924</td>
<td>Vacation leave, 4½ months; and leave of absence, 15 days.</td>
</tr>
<tr>
<td>1 January, 1925</td>
<td>Resumed duty.</td>
</tr>
<tr>
<td>7 March, 1925</td>
<td>Acting Accountant, Treasury and Customs Department.</td>
</tr>
<tr>
<td>7 June, 1925</td>
<td>Accountant, Treasury and Customs Department.</td>
</tr>
<tr>
<td>26 February, 1927</td>
<td>Vacation leave 139 days; and travelling leave, 12 days.</td>
</tr>
<tr>
<td>27 July, 1927</td>
<td>Resumed duty.</td>
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17 December, 1927  Acting Treasurer and Collector of Customs to 15th May, 1928.

3 August, 1929  Travelling leave, 14 days; vacation leave, 120 days; commuted leave, 4 months; leave of absence, 8 days; and travelling leave, 14 days.

7 May, 1930  Resumed duty.

31 January, 1931  Acting Treasurer and Collector of Customs to 16th June, 1931.

12 November, 1932  Travelling leave, 7 days; vacation leave, 150 days; commuted leave, 15 days; and travelling leave, 7 days.

10 May, 1933  Resumed duty.

29 November, 1933  Acting Treasurer and Collector of Customs to 13th April, 1934.

12 June, 1936  Travelling leave, 14 days; vacation leave, 6 months; commuted leave, 3 months and 2 days; leave of absence, 15 days; and travelling leave, 14 days.

26 April, 1937  Resumed duty.

9 July, 1938  Acting Treasurer and Collector of Customs to 5th December, 1938.

9 July, 1938  Temporary Official Member of the Advisory Council to 5th December, 1938.

29 April, 1939  Acting Treasurer and Collector of Customs to 8th November, 1939.

16 February, 1940  Acting Treasurer and Collector of Customs to 13th April, 1940.

23 April, 1940  Title of post changed to Assistant Treasurer and Collector of Customs.

21 March, 1941  Travelling leave, 8 days; vacation leave, 3 months; vacation leave on medical grounds, 2 months and 6 days; and travelling leave, 14 days.

18 September, 1941  Resumed duty.

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