# Missing Pieces:

## The Intelligence Jigsaw and RAN Operations from 1939-71

**Ian Pfennigwerth**

SEA POWER CENTRE - AUSTRALIA

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### Director Sea Power Centre - Australia

| Department of Defence | | |
|---|---|---|
| Canberra ACT 2600 | Telephone: | +61 2 6127 6512 |
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# Abstract

This study contends that the Royal Australian Navy (RAN) did not always give sufficient consideration to the provision of intelligence support in planning and conducting combat operations in the conflicts beginning with World War II (WWII) and ending with the Vietnam War. It reconstructs the intelligence background to RAN operational activities in prosecuting the conflicts, and the specific intelligence used by operational commanders to plan and execute their missions.

The study briefly describes the development of the RAN and its status at the beginning of WWII, and explains the naval, joint and Allied intelligence arrangements that paralleled the growth of the navy from a colonial squadron of the British Imperial Navy to an independent entity. It also considers the political and strategic decisions that gave the RAN its role and shaped its force structure, and the intelligence assessments that underlay them, and outlines changes in modes of warfare and the influence of technology on operations.

In addressing the issue of operational intelligence, the study describes the inputs to and outcomes from selected operational interludes in each of the conflicts. The six chapters, in turn, concern the RAN's role in the war with Italy, Vichy France and Germany (1939–41), the retreat from Southeast Asia after the Japanese onslaught (December 1941 to May 1942), the repulse of the Japanese (May 1942–August 1945), the Korean War (1950–53), the Malayan Emergency (1948–60), Indonesia's 'Confrontation' with Malaysia (1964–66) and the Vietnam War (1967–71).

The research involved in the study has been extensive, but it has not always been possible to get full access to the facts. Restrictions on the release of some official records continue, and parts of those opened for research have been expunged or withheld. Contemporary security regulations required the destruction of many highly sensitive intelligence records after they had been read, while the intelligence informing commanders' decisions was often so transitory that it was never written down. It is sometimes possible to reconstruct the intelligence envelope in which operations were conducted from the recollections of veterans, but the known limitations of oral history as an accurate record must always imbue the result.

These caveats notwithstanding, the picture to emerge from the research is plausible, and credible conclusions can be drawn from it. The principal conclusion is that no matter the quality of the intelligence support provided, RAN commanders always attempted to extract the optimal result out of every operational situation, and frequently succeeded. Where intelligence was accurate this was relatively easy to do; where it was inadequate commanders appear to have relied on their training and experience in bringing the enemy to battle and, in most cases, in defeating them. This operational

instinct ensured that even faulty intelligence did not always count against the RAN commander. In operations ending disappointingly or in defeat, inadequate intelligence can often be seen as an important contributing factor. However, the crucial factor in all operations was the quality of personnel rather than their intelligence support.

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In this book, place names are rendered in their modern forms. Chinese names are rendered in the Pinyin system, 'Tianjin' not 'Tientsin', and Netherlands East Indies (NEI) place names generally use their Indonesian form, 'Cilicap' rather that 'Tjilitjap'. However, major geographical features bear their Western names: 'Sunda Strait' rather than 'Selat Sunda'. Korean and Vietnamese names are rendered without accentuation.

Dimensions, distances and depths are rendered in metric units where appropriate. Distances at sea are in nautical miles (nm) and speeds in knots (nm/hr). Armament sizes quoted are those of the manufacturer: USN 5-inch guns instead of 127mm, but 20mm Oerlikon guns. Bomb weights are also in Imperial measure, mainly because the power of a 500lb bomb is more familiarly recognisable than a 227kg one.

To avoid any confusion between US and Japanese numbered fleet designators during WWII, US fleets are rendered with Arabic numerals (7th Fleet) while Japanese formations are spelled out (Sixth Fleet).

Times use the 24 hour system, with the zone suffix attached as necessary.

# Abbreviations

| | |
|---|---|
| AA | Anti-Aircraft |
| ABDA | American-British-Dutch-Australian command organisation (WWII) |
| ACH | Area Combined Headquarters |
| ACNB | Australian Commonwealth Naval Board |
| AHC | Assault Helicopter Company–US Army, Vietnam |
| AIB | Allied Intelligence Bureau (SWPA Agency, WWII) |
| AMS | Australian Minesweeper, more commonly known as 'corvette' |
| ANGLICO | Air and Naval Gunfire Liaison Company (Vietnam) |
| ANZAM | Australia, New Zealand and Malaya (defence agreement) |
| ANZUS | Australia, New Zealand and United States (treaty) |
| ARO | Admiralty Reporting Officer (WWII) |
| ARVN | Army of the Republic of Vietnam (South) |
| A/S | Anti-Submarine (British, WWII) |
| ASIO | Australian Security Intelligence Organisation (post-1949) |
| ASIR | Australia Station Intelligence Report (RAN, WWII) |
| ASIS | Australian Secret Intelligence Service |
| ASW | Anti-Submarine Warfare |
| AWM | Australian War Memorial |
| BCOF | British Commonwealth Occupation Force (Japan, 1945–1954) |
| *B-Dienst* | *Beobachtungs-Dienst* (German Naval Cryptanalysis Service, WWII) |
| CAFO | Confidential Admiralty Fleet Order |
| CANF | Commander Allied Naval Forces (SWPA, WWII) |
| CB | Central Bureau (SWPA Sigint Agency, WWII) |
| C&C | Command and Control (helicopter)–Vietnam |
| CCAS | Commodore Commanding Australian Squadron |
| CCO | Clandestine Communist Organisation (Confrontation) |

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|---|---|
| CCS | Combined Chiefs of Staff (WWII UK-US Strategic Planning Committee, based in Washington DC) |
| CDT | Clearance Diving Team (RAN) |
| CIA | Central Intelligence Agency |
| CINCFE | Commander in Chief Far East (US, Korean War) |
| CinCFE | Commander in Chief Far East (British, Confrontation) |
| CINCPAC | Commander-in-Chief Pacific |
| CINCPACFLT | Commander-in-Chief US Pacific Fleet |
| CNS | Chief of Naval Staff (Australia) |
| COIC | Combined Operational Intelligence Centre |
| COMUSMACV | Commander US Military Assistance Command Vietnam |
| COMFEF | Commander Far East Fleet (British, Confrontation) |
| COMNAVFE | Commander Naval Forces Far East (US, Korean War) |
| COMNAVFORV | Commander Naval Forces Vietnam (US) |
| COSC | Chiefs of Staff Committee (Australia) |
| CSWPSF | Commander Southwest Pacific Sea Frontiers (CNS, WWII) |
| CT | Communist Terrorist (Malayan Emergency) |
| CTF | Commander Task Force |
| CTG | Commander Task Group |
| CTU | Commander Task Unit |
| CTE | Commander Task Element |
| C7F | Commander 7th Fleet (USN) |
| DF | Direction finding (radio) |
| DMZ | Demilitarised Zone (between South and North Vietnam) at 17th North parallel of latitude |
| DNI | Director of Naval Intelligence |
| DOBOPS | Director of Borneo Operations (Confrontation) |
| DPRK | Democratic People's Republic of Korea |
| DRV | Democratic Republic of Vietnam (North) |
| DSB | Defence Signals Branch (Australia, 1946–1962) |
| DSD | Defence Signals Directorate (Australia, post-1962) |

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|---|---|
| DTG | Date/Time Group – the identifier of a naval message |
| EOD | Explosive Ordnance Demolition |
| EW | Electronic Warfare |
| FECB | Far East Combined Bureau (British Far East Command) |
| FESR | Far East Strategic Reserve (Malaya/Confrontation/Vietnam) |
| FO2ICFES | Flag Officer Second-in-Command Far East Station (British) |
| FRUMEL | Fleet Radio Unit Melbourne (Joint USN-RAN activity, WWII) |
| GC&CS | Government Code and Cipher School (British) |
| GCHQ | Government Communications Headquarters (successor to GC&CS) |
| GHQ | General Headquarters |
| HFDF | High Frequency Direction Finding |
| HMAS | His/Her Majesty's Australian Ship |
| HMS | His/Her Majesty's Ship (British) |
| *HSK* | *Handelsstörkreutzer* (German armed merchant cruiser) |
| H&I | Harassment and interdiction – method of NGS unassisted by spotting |
| IJA | Imperial Japanese Army (WWII) |
| IJN | Imperial Japanese Navy (WWII) |
| ISD | Inter-Allied Services Department (clandestine operations agency cover name, SWPA, WWII) |
| JIB | Joint Intelligence Bureau (British and Australian) |
| JIC | Joint Intelligence Committee (British and Australian) |
| JOC | Joint Operations Center (coordinator of UN air activity, Korea) |
| LZ | Landing Zone (helicopter)–Vietnam |
| *MLD* | *Militaire Luchtvaart Dienst*, NEI Naval Air Arm |
| MRLA | Malayan Races Liberation Army (Malayan Emergency) |
| MV | Motor Vessel |
| NAA | National Archives of Australia |
| NACP | US National Archives and Records Administration, College Park, Md, Annex |
| NEI | Netherlands East Indies (WWII) |

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|---|---|
| NGS | Naval Gunfire Support |
| NHC | US Naval Historical Center, Washington, DC |
| NID | Naval Intelligence Division (Admiralty or RAN) |
| NKPA | North Korean People's Army |
| NLA | National Library of Australia |
| nm | nautical mile |
| NOIC | Naval Officer-in-Charge (RAN sub-area commander) |
| NOFORN | 'No foreign access'–US security codeword |
| NSA | National Security Agency (US Sigint activity, post-1953) |
| NVA | North Vietnamese Army |
| ONI | US Office of Naval Intelligence |
| PLA | People's Liberation Army (China) |
| PLENAPS | Plan for the Employment of Naval and Air Forces of the Associated Powers of the Eastern Theatre (pre-1942) |
| POA | Pacific Ocean Area |
| PRC | People's Republic of China (post-1949) |
| RAAF | Royal Australian Air Force |
| RANHFV | Royal Australian Navy Helicopter Flight Vietnam |
| RAF | Royal Air Force |
| RACAS | Rear Admiral Commanding Australian Squadron |
| RAN | Royal Australian Navy |
| RANR | RAN Reserve |
| RDF | Radar (British terminology, literally 'radio direction-finding') |
| RN | Royal Navy |
| RNZN | Royal New Zealand Navy |
| ROK | Republic of Korea |
| RVN | Republic of South Vietnam |
| RVNN | Republic of Vietnam Navy |
| SEAL | Sea Air Land Force–USN Special Forces |
| SEATO | South East Asia Treaty Organisation |
| Sigint | Signals Intelligence |

| | |
|---|---|
| Slick | Troop-carrying helicopter (Vietnam) |
| SOPAC | South Pacific Area (WWII), adjacent to and east of SWPA |
| SWPA | South West Pacific Area (WWII), broadly covering Australia, New Guinea and the Philippines |
| TA | Traffic analysis |
| TE | Task element, component part of a task unit |
| TF | Task force |
| TG | Task group, component part of a TF |
| TU | Task unit, component part of a TG |
| UKNA | UK National Archives, Kew |
| UKUSA | UK-USA Agreement on Signals Intelligence 1948 |
| ULTRA | Codename given by Allies to intelligence derived from high-grade signals intelligence in WWII |
| UN | United Nations |
| USAF | United States Air Force |
| USAAF | United States Army Air Force (before 1947) |
| USN | United States Navy |
| USS | United States Ship |
| VC | Viet Cong (Vietnamese liberation movement in South Vietnam) |
| VESCAR | A database maintained by the British Admiralty during WWII on the dispositions of Allied merchant shipping |
| WBLC | Waterborne logistics craft–North Vietnamese blockade-runner |
| WIR | Weekly Intelligence Report (Admiralty, WWII) |
| 1ATF | First Australian Task Force (Vietnam) |

# Introduction

> *By 'intelligence' we mean every sort of information about the enemy and his country – the basis, in short, of our plans and operations.*[1]

This book analyses a relatively untouched aspect of Australian naval history. It asks whether the Royal Australian Navy (RAN) gave sufficient consideration to intelligence in planning and conducting combat operations in the conflicts beginning with WWII and ending with the Vietnam War.[2] It explores the context in which Australian operations took place, the intelligence organisations that existed to support those operations and the outcomes of operations in the light of operational intelligence available. It does not concern itself with strategic or theatre intelligence, except where these impinged upon the environments in which RAN operational commanders were pursuing their goals. But it does investigate the development of Australian naval intelligence capabilities under the dual pressures of operational demands and the requirements of Australia's allies.

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Naval operations take place in a context much different from that of land forces. 'Command' of the sea does not require a physical presence. Indeed, the term 'sea' means only that part of the ocean which is to be used by a nation's forces for a particular purpose while being denied to an enemy. Sea control requires that a naval force or, more accurately, maritime force – to include support provided by air forces – be capable of imposing its control only over that patch of water that it requires for its own operations. In convoy operations, for example, the convoy commander needs only to keep the enemy out of the convoy's environs to frustrate an attack and achieve his objective: the convoy's safe and timely arrival. Activities in the rest of the wide ocean are of little direct concern. Put simply, naval operations are matters of manoeuvre.

In World War I (WWI) the circle of sea over which control needed to be exerted was only the radius of the best lookout's vision from the tallest structure in the ship. This could be extended by the employment of scouting forces, the use of balloons and, later, by ship-launched aircraft. Knowing the enemy was within this wider circle was, naturally, most useful. But any contest of wills over control of the sea could only begin at the maximum effective range of the biggest guns in either force, about 13 nautical miles (nm) for battleship encounters. Aerial attack was in its infancy and proved largely ineffective against ships. In naval operations of the day the emphasis was on tactics, which made local intelligence a key factor in operational success.

By the outbreak of WW II technological advances had bred major tactical developments, particularly in the US Navy (USN) and the Imperial Japanese Navy (IJN), where the power of air warfare had been brought to the naval battlefront.[3] As later events were to demonstrate, it was now feasible to conduct that contest of wills over markedly longer distances (250nm as a rule of thumb) and to achieve decisive results at that range. Cooperation with a land-based air force could extend the radius of engagement to over 1000nm. Control of the sea now also required control of the airspace over it. This fact had to be learned the hard way − by the Italians at Taranto; by the Royal Navy (RN) in Greece, Crete and through the loss of HM Ships *Prince of Wales* and *Repulse* off the Malayan coast in December 1941 to Japanese aircraft; and, most dramatically, by the USN at Pearl Harbor. The Japanese − master exponents of the new warfighting methods − had this lesson read back to them by the Americans at Midway in June 1942. And as the maritime battlefield expanded, so did the need for coordinated operational intelligence support.

Some navies had the capacity to carry their wide-area air defence systems with them in the form of strike and defensive aircraft operating from carriers. Those navies without carriers were now compelled to operate either where effective cooperation from land-based air power could be provided, or to shelter under an ally's air umbrella, to limit operations to times and conditions unsuitable for air operations, or to operate only in areas relatively free from enemy air capability. The RAN fell into the latter 'have-not' category.[4]

Finally, during WWII a plethora of amphibious operations created new rules for command of the sea. The only recent Western experience was the British landings at Gallipoli in 1915, and most of the amphibious tactics, instructions and material used in WWII had to be created almost from scratch, while 'amphibious warfare' was not even listed in the USN's 1934 edition of *War Instructions*. The defence of beachheads required specialised tactics and equipment to seize control of the contiguous seas and hold them against possible stiff resistance. The loss of the ability to manoeuvre − to choose a battlefield best suited to one's own capabilities and otherwise avoid battle − which had always characterised naval operations, now placed navies in situations akin to those endured by their army brethren. These operations, in particular, called for excellent operational intelligence.

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Intelligence is the finished product that emerges from a number of interrelated and largely sequential activities − the 'intelligence cycle'. Planning and direction resulting from a commander's statement of information requirements are followed by collection and processing, during which the information collected is converted into a useable form. The production phase fuses relevant information from all sources to meet the

commander's requirements. The final phase is dissemination, which is not simply a matter of delivering the intelligence product to the requesting headquarters; it also covers the task of the commander's intelligence staff to ensure that the product is used appropriately in planning and executing operations.

Operational intelligence is rarely the product of a single source. Donald McLachlan, a distinguished practitioner of and writer on intelligence issues, referred to intelligence as 'a mosaic into which the intelligence worker has to fit his own particular fragments', and listed 17 categories from which those fragments might be drawn.[5] These categories may be informed by strategic issues, but might also depend upon essentially local information from a variety of agencies. The information used can be both of long-term significance and of immediate and 'perishable' nature.

In this book an effort has been made to identify the categories of intelligence information that a maritime operational commander would see as necessary precursors to a commitment to operations. Figure 1 portrays an ideal relationship between operations and intelligence.[6] Lack of some intelligence may not preclude the successful outcome of an action, but that outcome will grow steadily less certain as the volume and accuracy of the information are reduced.

Figure 2 summarises the intelligence on own and enemy forces that a maritime operational commander would like to have in planning his mission, and the following paragraphs illustrate the value of the intelligence in each category.

Location of enemy forces is an essential part of any operational decision. This information is not always available, and an enemy will make every effort to conceal it. It need not always be positive: for a commander wishing to avoid action, knowing where the enemy is *not* is as valuable a piece of intelligence as knowing where the enemy is. Location reports are seldom sufficient in themselves to enable an operational plan to be executed successfully. A commander really needs to know what he is facing − the composition of enemy forces. Knowledge of a superior enemy force may lead to a decision to avoid action or to adopt a particular tactic or formation to counter it. A classic example is the unusual split formation devised by Commodore Harwood in successfully pitting three smaller British cruisers against the superior weaponry of the German pocket battleship *Graf Spee* in the Battle of the River Plate in 1939. Intelligence of the range of the German guns and the relatively slow speed of *Graf Spee* led him to divide his force, causing the German to split his fire between two targets, thus improving the chances, first of Harwood's one heavy cruiser, and then his two light cruisers in formation, scoring damaging hits.[7]

False, inaccurate or misleading information on the composition of an opposing force provided by intelligence or a commander's organic reconnaissance can lead to incorrect decisions on tactics and armament to be employed. Japanese Vice Admiral Nagumo made a series of fatal decisions and counter-decisions on the arming of his carrier
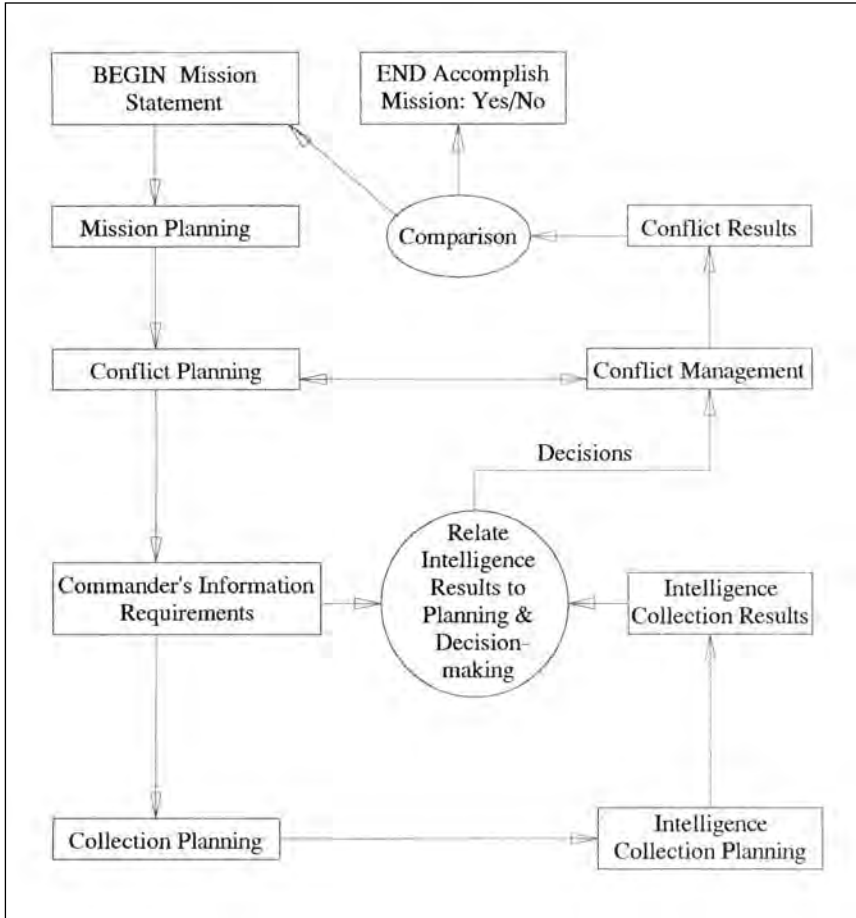
Figure 1 - Operations and Intelligence Interfaces

| | |
|---|---|
| Enemy weapons and fuel state and any hindrance to operations | Location of enemy forces |
| Composition of enemy forces | Enemy aims and objectives |
| Capability of enemy weapons and systems | Characteristics of enemy tactics |
| Enemy electronic and other signatures | Background on enemy situation appreciations |
| Enemy knowledge of friendly force dispositions and capabilities | Weather and hydrographic intelligence |

What do I know about the enemy ?

What does he know about me?

Figure 2 - Desirable Intelligence for Naval Operations

aircraft at the Battle of Midway that were precipitated by incorrect and inadequate information on the composition of the USN force sighted by a Japanese scout plane.[8] For this reason, denial or concealment of his force's composition to an opponent is of critical interest to any commander: operational deception is the art of injecting false information into the enemy's appreciations.

Understanding the enemy's aims and objectives will facilitate good decision making. In both World Wars the British understood that the successful re-routing of convoys was crucial in frustrating the German aim of destroying Britain's supply lines across the Atlantic. Sinking U-boats was an important but secondary issue.[9] Conversely, for a long period of the war in the Pacific, US submarine efforts were directed against Japanese warships, while Japan's military conquests were only the means to its war aim of ensuring access to supplies of industrial materials. The US shift to targeting Japanese commercial shipping in late 1943 directly attacked that aim.[10]

Significant intelligence effort is expended in determining how effectively an enemy force can resist attacks and deliver counterattacks. Knowledge of the capability of enemy weapons and systems provides information on weapon engagement and effectiveness ranges, and allows the development of physical or tactical countermeasures to reduce that effectiveness. In peacetime, covert or overt observation is the most likely source of intelligence, while in wartime it is likely to come from exploitation of captured or recovered documents and equipment. Similarly, knowledge of enemy tactics enables opposing naval forces to refine their operational doctrine. Once proven to be effective, standardised tactics are taught and practised to improve the capability of ships and aircraft to participate effectively in operations. Clearly, the opportunity of observing an enemy's tactics most often arises when one is on the receiving end of them, although assumptions made in the heat of battle may be erroneous until further researched. In the early days of the Pacific War many Allied ship losses in action were attributed to mine strikes. The actual cause was the Japanese 'Long Lance' torpedo, of which the Allies knew nothing.

Shortages of fuel, ammunition or damage to ship systems will inhibit a commander's freedom of action. In May 1941, the German battleship *Bismarck* successfully engaged elements of the British Home Fleet, evaded detection by reconnaissance forces and would probably have broken out into the Atlantic were it not for relatively minor battle damage to her forward hull. This caused a reduction in speed and a loss of fuel, which prompted her commander to seek repairs in occupied France. She thus re-entered the area being searched by the British, was subsequently torpedoed aft and lost steering, making her an easy target for the pursuing British heavy forces.[11] Knowledge of the opposition's weapon and fuel state and any hindrance to anticipated enemy actions can shape an operational plan. However, this information is not always easily ascertained and signals intelligence (Sigint) or a breach of enemy security is usually the source of it.

Sigint involves the interception and analysis of deliberate enemy electronic transmissions. Typical steps in attacking communications, for example, include traffic analysis, transmitter 'fingerprinting', code and call sign recovery, and cryptanalysis. Sigint can be carried out tactically or, more commonly, in cooperation with nets of shore sites and facilities. Captured codes and cyphers are of particular value in confirming and supporting cryptanalysis. A closely related field of tactical intelligence gathering is electronic warfare (EW), which exploits enemy electronic emissions for detection, identification, deception and countermeasures. The detection of an enemy radar transmission can identify the radar type, the platform on which it is mounted and the radar's mode of operation as well as providing information on the transmitter's relative position to friendly forces.

Any maritime platform, including those using 'stealth' technologies, produces some form of involuntary discernible signature comprising one or more emissions such as sonic, electromagnetic, magnetic, heat, pressure and nuclear resonance. These are detectable at short ranges in the case of magnetism and pressure but at ranges in the order of hundreds of kilometers for some of the other emissions. Foreknowledge of enemy electronic and other signatures is therefore important to any operational commander because their detection can identify and provide warning of the approach of an enemy force, a particular class of enemy platform or an individual unit. Deliberate electronic emissions in the form of sonar, radar or radio communications are all valuable sources of enemy identity, operating mode and, sometimes, intentions, and they can all be detected at significant longer than self-detection ranges. The information may be detected by surface, air and shore sensors, while satellites now play an important part in its collection. The collection and correlation of electronic information is an important peacetime activity in all maritime forces.

Knowledge of enemy situation appreciations may disclose intentions, location of enemy supporting forces, tactical considerations of importance and the state of preparedness of the enemy's forces.[12] Similarly, an enemy's knowledge of friendly force dispositions and capabilities may reveal elements of misappreciation that can be exploited. It may also reveal sources of intelligence on friendly forces being used by the enemy, leading to the possibility of deception measures being introduced. Sigint is the normal way this kind of information is obtained. Prior to the Battle of Midway in June 1942, the USN contrived to have the US Marine detachment on Midway Island send a plain-language message reporting (falsely) the breakdown of a desalination plant. Confirmation that the island was the focus of a Japanese attack plan came in a decoded Japanese transmission, which ordered additional stocks of water to be transported in the landing force.

Weather in a potential operational area can lead to the adoption of quite different modes of approach and deployment, particularly relating to the use of aircraft or operations in support of land forces. Conversely, enemy interest in weather in a particular area indicates the likelihood of planned operations there. The Allies waged an intense

struggle in the North Atlantic during WWII to eliminate German weather stations afloat and ashore. The most celebrated outcome was the ability of Eisenhower's chief meteorological officer to predict a short period of improvement in the weather during the period 4–7 June 1944, enabling the Allied landings on Normandy beaches to proceed, while German forces were stood down because their forecasts indicated weather unsuitable for an assault.[13]

Similarly, hydrographic intelligence is an essential part of any operations involving inshore work. In much of the South West Pacific in 1942 hydrographic intelligence was in very short supply, complicating Allied and Japanese maritime offensive and logistics operations. Hydrographic information can be gained only through survey work, although photo reconnaissance of high quality can assist in selecting appropriate landing beaches for amphibious operations and the channels leading to them.

However, the application of naval intelligence is rather more than just collection and use of information. Its principal element is the human mind. The activity about which information is sought is man-made, as are the circumstances that give rise to the need for that information. Its collection is organised by humans, and analysis of the raw data is an activity that relies in the end on human decisions. Humans then decide on the relevance of the processed information to operations at hand and decide who will see the information and how it will reach them. Finally, operational commanders and their staffs decide how they will use that information in support of their assigned tasks.

All intelligence is processed information and the resulting product is not value-neutral nor is its application. The propensity of humans at all levels in the intelligence process to assimilate new information into a perceived pattern of thought acts almost to exclude information that does not fit the perception.[14] Military commanders are no more immune from this condition than their staffs. Intelligence information must survive the tailoring by intelligence staffs to meet the commander's information requests and the biases that drive a commander's actions before they inform their decisions. These may arise from distrust of information at variance with the conventional wisdom or from mere wishful thinking, but throughout this book examples of commanders either ignoring intelligence or downgrading its importance will be drawn upon in the case studies examined.

A second factor affecting the application of intelligence to maritime operations is the question of volume and ambiguity. While McLachlan's 'mosaic' description of intelligence analysis is an elegant representation of the process in theory, when in close contact with an enemy a commander's intelligence sources – remote and organic – may present him with a mass of information, usually incomplete, often conflicting, or sometimes simply wrong. In Chapter 3, the circumstances of the Battle of Savo Island demonstrate how these factors resulted in the inability of a superior Allied force to deal with the Japanese night assault on their dispositions on 8–9 August 1942.

In her study of the causes of the debacle at Pearl Harbor on 7 December 1941, Roberta Wohlstetter coined the word 'noise' to describe the buzz of competing sources of information presented to a commander and his staff that complicates the extraction of essential messages from among the dross.[15] In more recent times, the term 'information overload' has become commonplace to describe the same phenomenon affecting decision making in many fields.

Application of intelligence is also a factor of the professional background of the commander. Until the end of WWI, senior naval commanders could make sound tactical decisions based on what they themselves could observe. They may not have had a thorough knowledge of all their ships and their handling capabilities and weaponry performance, but they were familiar with the capacities and personalities of their subordinate commanding officers. By the outbreak of WWII, however, this situation had changed. New ship and weapon technologies, together with new detection and intelligence capabilities like radar, high frequency direction finding (HFDF) and Sigint, and the tactical changes these introduced, meant few senior officers could claim sound knowledge of the forces under their command, or how to use them effectively.[16] Commanders were obliged to rely on their staffs in providing expert input to their decision making. Before the Battle of Midway, the designated USN commander became medically incapacitated. Rear Admiral Raymond Spruance was posted in his place, and was able to use his predecessor's staff to advise on the aviation aspects of the operation to make up for his lack of personal knowledge of aviation issues. He decisively won the battle.

However, many senior naval commanders opted for conservative use of their resources while some evinced a scepticism bordering on rejection of 'new' intelligence methods and the information they supplied.[17] This distrust was frequently exacerbated when the information provided was not from the Service to which the commander belonged or came from an Allied agency. We are accustomed now to expect and accept 'homogenised' intelligence information from a variety of sources, but for many commanders this was not so, even in the closing stages of WWII.

Throughout my study of the supply and application of intelligence to RAN operational commanders, I found it useful to apply the analogy of a jigsaw puzzle. The commander and his staff were seeking out and inserting as many pieces as they could to aid their decision making without, of course, having the picture on the box to guide them as to what the completed puzzle should look like. When poorly supported with intelligence, either from superior authority or organically derived, the resulting picture they had to work with was frequently ambiguous and sometimes wrong. However, when the intelligence jigsaw puzzle was complete, or nearly so, operational decisions could be taken with confidence.

This short introduction to the major features of operational intelligence as it applies to maritime operations should enable readers to appreciate the subtleties of the situation

facing RAN commanders as they embarked upon operations in the face of their enemies, as illustrated in the case histories reconstructed in this book. However, I need to sound a note of caution about the completeness of the record. First, there are some peculiarities in the recording of intelligence, as quotes from two other researchers demonstrate:

> Because so much of the work goes unrecorded on paper, lost forever in scrambled talk and burnt teleprinter flimsies, any account must be incomplete. One runs, therefore, the risk of arousing the historian's interest without fully satisfying his curiosity.[18]

> Intelligence is a fascinating and infuriating subject. Deceit, mystification and secrecy are inherent in intelligence. You know from the outset that you will not get the full story, nor will you even be correct in all you write. In few fields of research will you meet more obstruction and be told more lies.[19]

I encountered all these diffculties and more in researching this book. Quite odd restrictions placed on access to official records by modern-day security and intelligence agencies complicated the task. However, a larger problem is that of the destruction of records. Enormous damage has been done by the inappropriate disposal of records by many government authorities without regard to the need to preserve their past. So let me state quite plainly that the accounts in this book have necessarily been constructed from fragmentary and often conflicting evidence. The reconstructions, therefore, can only be approximations but I am as confident as one can be that they are substantially accurate.

# 1. Setting the Scene -
# The RAN and its Intelligence Division
# to 1939

The Royal Australian Navy (RAN) had its origins in the unwillingness of the six 19th century Australian colonies – New South Wales, Queensland, South Australia, Tasmania, Victoria and Western Australia – to place their entire faith in the naval defence offered by the British Admiralty.[20] Defence was, in fact, one of the issues that compelled the colonies to consider seriously the idea of federation, which occurred on 1 January 1901. Before Federation, five of the six colonies maintained some naval forces designed to afford local maritime protection. They operated under the aegis of the Australian Squadron of the Royal Navy (RN), which was based in Sydney. Immediately prior to Federation, several colonial naval units were on active service in China under RN command.

Under the Australian Constitution of 1901, defence became a federal responsibility, with the Governor-General as commander-in-chief of Commonwealth forces. All colonial naval and military forces were transferred to the Commonwealth, and the new 'Commonwealth Naval Forces' came into existence on 1 March 1901. The resulting 'fleet' was a motley collection of widely dispersed and largely obsolescent warships.

What the British Government had wanted, and had argued for over several decades, was a force largely paid for and supported by Australians, but firmly under Admiralty control. It had partially achieved this with the creation of the Australian Auxiliary Squadron as an outcome of the Colonial Conference of 1877. After Federation, with severe financial stringencies seeming likely to result in the collapse of the Commonwealth Naval Forces, the British returned to the familiar theme of 'one Empire, one sea, one fleet'. However, protagonists of an Australian force under Australian control, led by the Director of Naval Forces, Captain (later Vice Admiral) William Creswell, were able to gain the support of Prime Minister Alfred Deakin. With his help they were able to win the argument against trenchant opposition from the British, and some local figures, and to lay the foundations of an indigenous naval force. Their main premise was that, without control, Australia had no means of ensuring that its contributions to the Imperial Navy in finance and personnel would be used in the defence of Australian interests, as perceived by Australians.[21]

Faced with Australian persistence in an independent stance on naval defence, and with the arms race with Germany becoming serious, British objections to an Australian Navy were withdrawn during the Imperial Conference of August 1909. On 5 October 1911 King George V assented to the title 'Royal Australian Navy', and the newly constructed

Australian fleet steamed into its new base in Sydney on 4 October 1913. The last British commander of the Australia Station hauled down his flag in favour of an RAN successor, although he too was a serving RN officer. This was a practice that largely continued until the first graduate of the Royal Australian Naval College was appointed the Chief of Naval Staff (CNS) in February 1948.[22] But it was the first time that a Dominion government had taken over full responsibility for its naval defence.

At the same 1909 Imperial Conference, the concept of a British Pacific Fleet was mooted. Components were to be provided by Australia, Canada and Britain – the latter was to provide two squadrons from the East Indies Station and the China Station. Although capable of independent operation, in wartime the Australian Fleet – with Australian Government consent – would come under the operational control of the Admiralty. This arrangement facilitated the influx of large numbers of experienced British naval personnel to supplement and train the Australians. Second, it dictated that the structure and organisation of the new Australian force should be firmly modelled on the RN. Third, it gave the Australians access to British organisational and operational doctrine and experience. The Australian piece of the Pacific Fleet jigsaw was shaped so that it would fit smoothly into position when called upon to do so.

Strategically, the Pacific Fleet concept allayed Australian concerns about the rising power of Japan. Admiral Togo's defeat of the Russian Fleet at the Battle of Tsushima in 1905 had signalled, at least to Australians, the beginning of a different era in power relations in Asia and the Pacific. There was thus some consternation when Britain abandoned the Pacific Fleet idea in 1912 in the face of the growing German naval menace in home waters, and this was not greatly allayed by British assurances that the Anglo-Japanese Alliance of 1902 was an effective instrument of defence for Australian maritime interests. Australian fears of Japan were a central theme in defence planning, aggravated by the grant to Japan of League of Nations mandates in the Caroline and Marianas Islands after WWI. This put the nearest Japanese-occupied territory of Truk only 1000nm from Australia.

Any thoughts of a deeper RAN capacity for operational independence were overtaken by WWI. An Order-in-Council on 10 August 1914 placed all Commonwealth naval forces under Admiralty control for the duration of hostilities. RAN units fought with distinction throughout the war but, with the exception of the early activities against German territories in the Pacific, and the initial stages of the search for the cruisers of Admiral von Spee's East Asiatic Squadron, they were always under British operational control. Furthermore, Australian units, and their officers and men, gained much of their warfighting experience in the context of the Grand Fleet and its efforts to draw the German High Seas Fleet into decisive fleet action in the North Sea.

In the post-war period, the RAN languished because of political dithering – the aftermath of the implementation of the Washington and London Naval Treaties, at which it was represented by the British, and by the effects of the Great Depression. Even had the Australian Government wished to develop a navy capable of competent and balanced

independent operations, it was bound to observe the limitations imposed by the successive naval treaty negotiations. The main aim of these was to forestall a naval arms race by fixing an upper limit on the main battle strength of each of the five naval powers involved, Britain, the United States, France, Italy and Japan. The expectation at the time was that this would ensure stability and security by reinforcing the post-war status quo. But Australian governments were not inclined to spend money on defence. Instead, they continually sought, and found, some reassurance in the British plan for constructing a major naval base at Singapore, and in British guarantees that the timely dispatch of the Main Fleet to operate from there would protect Australia from the expanding Japanese empire and its forces.[23] It was not until 1934 that the rebuilding of the RAN began in earnest; its modest order-of-battle expansion was only just completed by the outbreak of the European war.

The Admiralty, appropriately, saw the looming international conflict from a different perspective. Its task was to concentrate the maximum effective force against its principal adversary, Germany, while counting on the French Fleet to hold the Italian Navy at bay and the diplomats to keep Japan from entering the fray for as long as possible.[24] However, successive Imperial Conferences held between 1921 and 1937 failed to lead to a coherent collective Imperial defence policy or the development of comprehensive contingency plans, joint staff structures and the other essentials of Allied operations. As late as April 1939, a conference on Pacific defence held in Wellington, New Zealand, yielded no common strategy for dealing with Japan, nor a joint regional command structure, nor any plans for joint operations.

Nevertheless, the Australian Government was generally sympathetic to the overall Admiralty plan for the coming war. In September 1939, after some initial reluctance and misgivings, Canberra agreed to British requests for the dispatch of Australian ships to other stations. The Admiralty held HMAS *Perth,* on her delivery voyage, in the West Indies and wanted one other cruiser and five destroyers for the Mediterranean. The Australian Naval Board agreed, because the destroyers were likely to be of more value hunting German submarines in European theatres than on convoy escort in Australia.[25] On 7 November 1939, an Order-in-Council placed all Australian ships in commission at the disposal of the Admiralty 'until the issue of a further order modifying or annulling this order'.

Thus the RAN was not an independent force at the outbreak of WWII.[26] While Australia had created a local financial and personnel management system to serve the RAN, very little else had been developed to support a capacity for planning and executing operations independently. The choice of ships for its order of battle, made by senior officers on secondment from the RN, focused the RAN on trade protection and convoy duties, and providing reinforcements for a British force that might perhaps arrive in the Pacific. In the context of the worldwide struggle soon to engulf it, the RAN carried limited strategic weight, while its experience in conducting or participating in the kinds of operations in which it was soon to be involved was very limited.

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The light cruiser HMAS *Perth*

Just as Australian planning and training between the wars had produced a navy designed to operate as an effective part of the RN, so the intelligence arrangements to support the RAN were subordinate to those of the Admiralty. Admiralty intelligence was provided by the Director of Naval Intelligence (DNI) responsible for the Naval Intelligence Division (NID) of 17 separate sections, and the Operational Intelligence Centre. The Centre's staff was collocated with the Admiralty operations staff and comprised sections dealing with surface warships and raiders, submarines, naval air operations, merchant shipping, and minefields and wireless interception.[27] The Admiralty Centre was responsible for home waters and the Atlantic, and there were local Operational Intelligence Centres in the Mediterranean and China Fleet commands.

The organisation and fortunes of Australian naval intelligence had to some extent mirrored those of the RAN itself. Established on 25 June 1914 by Cabinet, the Australian NID had supported trade protection operations on the Australia Station during WWI under the able and enthusiastic leadership of Captain Walter 'Hugh' Thring, Director of War Plans. The RAN took over the duties being discharged by RN officers in Sydney and other intelligence centres, and a noteworthy contribution to Imperial defence was the capture of the German merchant codebook from a German ship in Melbourne and the breaking of other German codes by a master at the RAN College.[28] The RAN also operated a war room and its own direction-finding network and Sigint capability. In a report commissioned by the acting prime minister, the Naval Staff stated that the NID had two tasks: as a node in the Admiralty worldwide intelligence organisation, and the collection of 'intelligence on regional countries' in support of the CNS.[29] Included in the RAN War Staff were five officers with geographic intelligence responsibilities.

Captain Walter 'Hugh' Thring, RAN, 1920

However, after the retirement of Thring at the end of WWI, naval intelligence went into decline: it was poorly manned and received little support from the Naval Board. The Sigint network was disbanded, and the title 'Intelligence' was removed from the Naval Staff List in 1921. The Admiralty noted the paucity of information on the Pacific arriving from RAN sources and offered the services of an experienced intelligence professional to bring some form and order to the matter.[30] This offer was accepted, and on 29 January 1921 Lieutenant Colonel Francis Griffiths of the Royal Marines arrived in Australia to take up duties as the 'Imperial Liaison Intelligence Officer'. On 14 January 1922, Griffiths' title was changed to Director of Naval Intelligence. He established a Naval Intelligence Centre in Sydney, remote from Navy Office in Melbourne but close to the fleet and in the nation's busiest port. This was to remain the centre of RAN intelligence activities for the next 15 years. The DNI in 1923 said that 'Sydney is 'a model example' of a district intelligence centre', and noted that the District Intelligence Officer Sydney was investigating possible Communist cells in HMA Ships and establishments.[31]

Griffiths quickly identified the RAN's intelligence priorities and began to service them. At Admiralty request, he set about the collation of naval and economic information on Papua, the Solomons, the New Hebrides [Vanuatu] and New Caledonia, and published the results as NID handbooks in 1923. He instituted a monthly series of Australia Station Intelligence Reports (ASIR), recruited new staff and established additional NID centres in Brisbane and Melbourne.[32] One of the staff members appointed was Mr William Brooksbank, who provided the continuity for the Intelligence service through the inter-war years, became Civil Assistant to DNI in 1939, and proved a tower of strength throughout the war.

Unfortunately, in August 1923 Griffiths returned to the Admiralty and was not replaced. The duties he had performed were combined with those of the Assistant Chief of Naval Staff in Melbourne, and Intelligence again ceased to be a staff division.[33] It was not until 1936 that the position of Assistant DNI, concerned purely with intelligence matters, was established in Navy Office in the rank of lieutenant commander.

One intelligence initiative that was to prove vital in the Pacific War was the establishment of the RAN Coastwatcher Service in 1926. First proposed by Commander Thring in 1913, it was revived in 1919 as a means of providing information on maritime activities in less frequented parts of the Australian coastline, and by 1928 the Service had reporting officers all around Australia and at Thursday Island, and as far afield as Port Moresby, Rabaul, Samarai, Madang, Tulagi, Nauru and Port Vila.[34] Coastwatchers were, for the most part, civilians – typically port officials, customs officers and lighthouse keepers, with missionaries covering much of the northern coastline. In the Pacific Islands they were usually copra planters and missionaries.

In 1929, the book *Naval Intelligence Organisation (Australia),* ACB 45, was published, with a distribution of 100 copies to government departments, all Admiralty Reporting Officers (AROs), every HMA Ship, and to London, Ottawa, Wellington and the Commanders-in-Chief China, East Indies and Africa Stations. As part of the worldwide Admiralty organisation, the RAN DNI was on the distribution of Admiralty intelligence reports, and in turn contributed ASIRs to the imperial collection effort. RAN intelligence policy was that Australia should form one centre of a worldwide Admiralty intelligence organisation and would thus share in 'the mutual exchange of information provided in that organisation'.[35] ASIRs were also sent to Ottawa and Singapore.

Although not a direct DNI responsibility, Sigint activities had a long history in the RAN. In 1921, despite the disbandment of the Wireless Intercept Service after WWI, RAN ships were provided with details of the Japanese *kana* code, which converted Japanese phonemes into Morse-like groups of dots and dashes. Wireless telegraphists were encouraged to become proficient in reading *kana*. An early exponent of breaking Japanese naval codes was Lieutenant Theodore Eric Nave, RAN, who was seconded to the British China Fleet for this purpose and later transferred to the RN as a cryptanalyst.[36] Interception of Japanese transmissions became known as 'Procedure

Y', and was normally carried out in cruisers, but other ships, including *Franklin*, the yacht of the Administrator of Papua and New Guinea, and shore stations were also involved.[37] In 1928, Procedure Y operators were recognised for their skills with the addition of the prefix 'Special' to their titles. The Naval Estimates for 1934−35 contained provision for eight additional special wireless operators, and in May 1936 the Naval Board advised Admiralty that it intended to act upon recommendations made regarding the construction of HFDF stations. Australia would establish three stations, located at Darwin, Rottnest Island off Fremantle, and Sydney, and provide two special wireless operators per cruiser for Procedure Y duties.[38]

The RAN was also closely involved in the development of the Far East Combined Bureau (FECB), which was set up by the Admiralty in 1935 in Hong Kong. This became necessary when British intelligence failed to detect Japanese aggressive moves against China in the early 1930s, and an all-Service, all-source intelligence centre was mandated to fill the gaps. Despite an acute shortage of officers, the Australians filled the Deputy Chief position in the rank of commander.

At the outbreak of the European war, the Australian NID comprised only ten personnel, the majority of whom were responsible for coding and ciphering classified messages. There was no technical section, no operational intelligence centre, little cooperation with the other services, and no cryptanalytical capability.[39] However, one factor that was to ensure that the Australian NID succeeded in 'punching above its weight' was the character and personality of its director, Acting Commander Rupert Long, better known by his nickname ' Cocky'. Long had been a cadet in the first entry into the Royal Australian Naval College in 1913. As was the pattern of service for young Australian officers, he spent considerable periods serving in RN ships from 1917 onwards, and became a torpedo specialist. He showed an early interest in intelligence and, although denied the opportunity to train in intelligence by the Naval Board, contrived to gain experience in the collection and interpretation of intelligence during his tours of duty with the RN, which included a period of service with the China Fleet. Long's successful career as a contemporary of Commanders Collins and Farncomb (who both later reached flag rank) ended abruptly after he successfully completed the RN Staff course in 1934. He did not receive the expected promotion to commander and elected to take up the unwanted position of District Intelligence Officer Sydney.

Long's aptitude for and interest in intelligence were complemented by his personality and social connections, which enabled him to establish effective personal networks of intelligence collection beyond the naval chain of command, and well outside the normal sphere of activity of a DNI.[40] His lowly rank was dictated by RAN personnel regulations. That made fighting for resources and attention for intelligence in the Australian military establishment difficult, but did not diminish the esteem in which he and his directorate were held by overseas intelligence authorities.

The organisation Long inherited was in no shape for the coming war, and he launched a vigorous campaign to prepare it, particularly for hostilities against the Japanese. In response to frequent reports of Japanese incursions in Papua New Guinea and northern Australia, DNI improved the Coastwatcher Service and other reporting services, building the former to a strength of over 700 observers, mostly civilian, by mid 1938.[41] He also contrived to equip almost every Coastwatcher with a specially designed 'teleradio' with a unique operating frequency and code. To boost the capacity of the organisation in Australia's northern perimeter, an Intelligence Centre was established in Port Moresby in September 1939. Appointed to head this unit was Lieutenant Commander Eric Feldt, a term mate of Long's at the Naval College, who had left the RAN in 1922 and spent the time since in the Papua New Guinea area as a patrol officer. Long's plan to establish a chain of radar stations to fill the gaps between coastwatchers was defeated, firstly by the expense involved, and later by the Japanese attack.

The new Assistant DNI took a leading role in the reawakening of Australia's counter-intelligence organisation, the Commonwealth Security Service. There were two major sources of concern. The first was the threat to the security and timely sailing of shipping bound for the United Kingdom, largely occasioned by the waterside workers at Communist instigation. The second was efforts by the Japanese to obtain information. Ostensibly matters for the Special Branches of the civilian police forces, Long used passes issued by the RAN to control access to the wharves.[42] On the other side of the coin, he began to establish his own network of agents throughout the Asia-Pacific region. Based on Long's private papers and the evidence of his staff – as Long destroyed all his agent records to protect their identities – it is estimated that he 'ran' up to 150 agents, including former members of his intelligence staff. As an example, in 1938 Long's Senior Intelligence Clerk with 14 years experience took up a posting as Assistant Trade Commissioner Shanghai. Long also contrived to send one of his NID intelligence clerks on a 'honeymoon' tour of Singapore, Saigon and New Guinea.[43] He arranged for civil airline pilots to be briefed by the FECB, by then in Singapore, and to report to that organisation on observations made in their overflights of Japanese-controlled areas of the Pacific.

Long was an early convert to the cause of Sigint. Although both the Y service afloat and the shore wireless stations were controlled by the Director of Naval Signal Communications, DNI had ensured that the nascent capability had been built up in the period leading to war.[44] In December 1939, at the urging of Long, CNS Vice Admiral Sir Ragnar Colvin proposed to the other service chiefs the establishment of a 'cryptographic' organisation by the Australian forces, and the Defence Committee agreed to refer the matter to the United Kingdom in February 1940.[45] However, Prime Minister Menzies decided to seek the views of the Dominions Secretary before committing the manpower and money required to create a cryptanalytical organisation in Australia. Menzies was concerned about cost and operational utility. The real difficulties were in training personnel, setting up intercept sites and building up the necessary background understanding to be able to pluck enemy transmissions out of the ether and to work on them.[46]

To summarise, by 1939, with the majority of Long's reforms of naval intelligence in place, the RAN intelligence service was well positioned for war. Through its place in the Admiralty intelligence network, the NID or, for particularly sensitive intelligence, DNI personally, was receiving a flow of information on the Pacific and Indian Oceans from adjoining naval station commands and the Admiralty itself. AROs throughout the Australia Station were reporting shipping movements to DNI and then to the Admiralty. A system known as VESCAR was in place to pass relevant parts of this information to RAN warships and shore commands in weekly reports.

The NID was also on the distribution of all messages between RAN and Royal Australian Air Force (RAAF) operational commanders, and was monitoring incidents in less-frequented areas of the station through the Coastwatcher system. Long tapped sources of insider information from his own agents across the station and his more formal contacts in Hong Kong and Singapore. The Admiralty's worldwide direction-finding network was in operation, tracking shipping of interest on the Australia Station, although the positional accuracy of the system would have to wait the completion of the Australian stations before it could be improved.[47]

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While DNI was preparing his organisation for war, the remainder of the Naval Staff in Melbourne was also engaged in setting the RAN's operational organisation to rights in the context of the foreseen trade protection operations. From the outbreak of WWII, the RAN would be engaged in the defence of trade. With the possible exception of those Australian units which served in the Mediterranean theatre, where initial actions were directed against the Italian Fleet and in support of Allied military operations in North Africa, the operation of every ship was connected in some way with the protection of trade routes to and from the continent.[48] Along those routes passed commercial cargoes vital to the war effort and troopships, whose precious cargo received the best protection that could be afforded.

In September 1939, the RAN itself was a reasonably balanced force, whose order of battle was structured for the primary role of trade protection. The heavy elements were two 8-inch gun heavy cruisers, HMA Ships *Australia* and *Canberra,* both constructed in 1928. There were three modern light cruisers, HMA Ships *Sydney*, *Hobart* and *Perth*, each with eight 6-inch guns, and the older light cruiser HMAS *Adelaide,* which had been constructed in Sydney in the 1920s and had only recently been converted from coal to oil. There were five destroyers of WWI vintage (termed by the Germans 'the scrap iron flotilla') and two more modern sloops. Five merchant ships had been converted to armed merchant cruisers, each mounting four 6-inch guns, but three of these were serving as units of the RN, while HMA Ships *Manoora* and *Westralia* were RAN units. A small number of merchant vessels had been equipped as minesweepers, while two sloops and a destroyer were under construction in Sydney.[49]

The heavy cruiser HMAS *Australia*



The light cruiser HMAS *Adelaide*

The responsibility for defence of the sea routes on the Australia Station rested with CNS, and this force could not provide enough warships to convoy every merchant ship. In the Indian Ocean, where the intensity of enemy attacks on trade was expected to be only sporadic, many ships would have to sail independently. The Australian command organisation for its naval forces mirrored that of the British. CNS, who was also the First Naval Member of the Australian Commonwealth Naval Board (ACNB), exercised operational command of the RAN and of Imperial ships assigned to the Australia Station. He was thus both an operational commander of forces and the executive head of the RAN. Australian ships leaving the station would transfer to the operational command of the appropriate station commander, such as Commander-in-Chief China Station. At a joint level, Area Command Headquarters (ACH) were set up in Melbourne, Fremantle and Darwin to facilitate close cooperation between the RAN and the RAAF in maritime operations.

CNS delegated operational control of naval forces on the Australia Station to the Rear Admiral Commanding Australian Squadron (RACAS), who usually exercised this control in one of the cruisers as flagship. He directed forces assigned to him on tasks and operations approved by CNS. This arrangement worked far from smoothly. Throughout 1938, RACAS Wilfred Custance engaged the Naval Board in a series of exchanges regarding his responsibilities in the event of war.[50] Separate arrangements were in place for the command and control of naval ports where Naval Officers-in-Charge (NOICs) had responsibility for naval affairs in their assigned 'districts'. These included operation of Port War Signal Stations, harbour defences and the examination of ships entering the port. In wartime their responsibilities would be expanded to include the command of local defensive operations using assigned vessels, cooperation with the Army and RAAF in port security and defence, and the assembly and sailing of convoys and escorts.[51]

In August 1939, the Naval Board comprised two serving officers, Vice Admiral Sir Ragnar Colvin RN as First Naval Member, and Commodore Boucher as Second Naval Member. Mr A R Nankervis was the Civil and Financial Member (and permanent head of the Department of the Navy after November 1939) and the Secretary was Mr G L Macandie. The Operations and Intelligence Staff , under Captain Joseph Burnett as Assistant Chief of the Naval Staff, consisted of twelve permenant officers, including Lieutenant Commander Rupert Long as DNI, Henry Burrell and George Oldham both staff officers.[52] The entire Naval Staff, including medical, naval stores, victualling, accounts, works, staff & industrial, engineering & construction and the personnel branches, stood at just 252. This was too small a staff to fight a war, but the Naval Staff was handicapped by the shortage of RAN officers of sufficient seniority and operational experience to undertake the additional staff workload.[53]

Thus was the RAN organised as events in Europe and the Far East continued a spiral of deterioration towards war. The manifest shortcomings in the organisation, manpower,

state of training and order-of-battle of the RAN would soon become evident, and the NID too would be tested thoroughly. On 28 August 1939 ships and staffs went to war stations, and on 3 September the war warning telegram 'TOTAL GERMANY' signalled the start of WWII.



Director of Naval Intelligence - Commander Rupert Long, RAN

# 2. Operations against Italy, Vichy France and Germany, 1939–42

The first two years of WWII provided the RAN with important experience in combat operations, especially in the Mediterranean. On the Australia Station, as had been expected, the major task was trade protection, with the principal threat proving to be German armed merchant cruisers – raiders. Even so, the RAN was hard pressed to deliver the level of protection required.

The period allowed the naval intelligence organisation to 'bed-down' and for all involved to become familiar with and proficient in their roles. The Admiralty became the main source of processed intelligence, but the RAN had considerable and often important input into the collection task. Intelligence gaps and operational experience demonstrated shortcomings in the Australian organisation for war, and some effort was expended, particularly by the RAN, to address those. There seems to have been a common understanding at the strategic level that the main threat to Australia came not from Europe but from the Japanese, and some measures were implemented to prepare for this.

While the RAN command arrangements had worked reasonably satisfactorily during peacetime when the tempo of naval activity was constrained by funds available for fuel, in wartime the relationships began to fray. In fact, neither CNS in Melbourne nor RACAS in his flagship had all the information or expertise necessary to function well. During the first 12 months of the war the majority of the RAN's fighting strength was under the operational command and control of the Admiralty. The Australia Station was left with only two cruisers and two armed merchant cruisers. The experience of war also caused an expansion of the Naval Staff in 1940, and an additional change was made in October 1941. This separated the Operations and Plans areas, leaving the former to concentrate on trade defence, troop transportation, naval control of shipping (including convoy routeing) and other local operational responsibilities. Plans took responsibility for training, equipment, and army and air force liaison.[54]

There were more changes in the joint operational arena. On 30 July 1940 the chiefs of staff authorised the establishment of a Joint Planning Committee.[55] This created a Central War Room in Victoria Barracks Melbourne to conduct joint operations, and an attached Combined Operational Intelligence Centre (COIC) under DNI Long's directorship, and with representation from all three services. The COIC opened on 16 October 1940, and was tasked 'to pool, assess and distribute operational intelligence, particularly on *Japanese* activities' [author's emphasis].[56] Setting up the COIC was an

RAN task, as neither of the other Services had much to offer in the way of relevant intelligence, and it was not until 18 December 1940 that COIC went on continuous watch in response to the activities of the German raider *Pinguin* in Australian waters.[57]

The war caused some significant developments in RAN Sigint as well. In April 1938 the decision was taken to post the few special wireless operators from ships to shore wireless stations, and these formed the nucleus of the RAN's Sigint contributions throughout the coming war. By April 1940 the Naval Staff was ready to offer the Admiralty more than a dozen operators, with more in the training pipeline. A significant step was the establishment of the RAN Special Intelligence Bureau, collocated with NID in Melbourne in September 1940.[58] The Bureau was led by an Australian, Commander Eric Nave, who had transferred to the RN in 1930, and who had been sent to Australia to convalesce from an illness caused by his service in the Far East. He was now on secondment to the RAN. The Bureau was tasked with the intercept of Japanese communications through the services of the three intercept and direction-finding (DF) stations in Australia at the time, Darwin (HMAS *Coonawarra*), Canberra (HMAS *Harman*) and an Army station at Park Orchards in Melbourne. In May 1941, the Special Intelligence Bureau absorbed Army personnel and academics who had independently been investigating Japanese codes to form Australia's first joint signals intelligence organisation. By July 1941 Sigint product had become available to COIC from Bureau and British sources.[59]

DNI Long continued to strengthen Australia's links with other intelligence and cryptanalytic agencies. The FECB connection was already working well, and after April 1941 a naval liaison officer in Batavia was cultivating links with the Dutch. By that time the British had made inroads into the new IJN operational code, Code D, and the Dutch as well were thought to be making progress in solving it. Direct liaison between FECB and the USN codebreakers at Station CAST in the Philippines had first occurred in March 1941, and decodes from the Code D/JN-25 system were being exchanged, their security protected by the new security warning 'ULTRA'.

These Australian command and control arrangements, and their intelligence support, were tested by a series of operations undertaken on and proximate to the Australia Station between April 1940 and December 1941. From these I have chosen a representative selection of incidents to examine the relationship between intelligence and operations, and to decide how well both the Naval Staff and the NID played their supporting roles. The sinking of the Italian cruiser *Bartolomeo Colleoni* in the Mediterranean by *Sydney* has been included as a yardstick to assess whether Australian Squadron units were more or less confident and effective within the more advanced and experienced Admiralty system of operational and intelligence support.

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# Pursuit of MV *Romolo*, June 1940

Australia opened hostilities with Italy at 0900 on 11 June 1940. The Italian declaration of war had been expected for some time, and CNS had been able to plan the capture of the two Italian merchant ships on the Australia Station at the time, MV *Remo* in Fremantle and MV *Romolo*, which had sailed from Brisbane on 5 June.[60] Contrived problems in Australian ports had delayed *Romolo*, which had been ordered by her agents in Sydney to leave Australian territorial waters no later than 31 May.[61] She finally sailed, declaring her next port of call as Macassar in Indonesia, and with a Torres Strait pilot embarked for the voyage up the Australian east coast.

The armed merchant cruiser *Manoora* was ordered to shadow. *Manoora* had been selected and modified for her auxiliary merchant cruiser role in 1934, but had only recently been taken up from trade and was still in the livery of the Adelaide Steamship Company. Although armed, *Manoora* had only a three-knot speed advantage over *Romolo*, and her commanding officer, Acting Captain Arthur Spurgeon RAN, elected to pick up his quarry in Moreton Bay, as he could not afford to let the pursuit turn into a stern chase.[62] Spurgeon believed that there was a possibility of *Romolo* attempting to divert into the Coral Sea to escape Australian surveillance, and he was proved correct. Contact was lost on the night of 6 June, and a run at high speed to the east was required before *Manoora* fortuitously regained contact the following day.

At this juncture not much intelligence was available to Admiral Colvin and the Naval Staff, or to Captain Spurgeon and his command team. War with Italy was imminent, but there was no clear idea on when hostilities might begin: the instructions issued to Spurgeon were to capture the Italian on the declaration of war. The Naval Staff was not aware of any secret instructions that the Italian Government might have issued to *Romolo* to be executed in case of war, but all now realised that *Romolo's* declaration of her next port of call as Macassar was false. CNS had arranged air surveillance to assist Spurgeon in his task, but this could only be provided while *Romolo* remained within the operating range of RAAF aircraft. Continued easterly movement would soon see this limit reached, but the staff was aware that the Italian was sailing with depleted fuel bunkers. Lack of fuel limited *Romolo's* options to finding a neutral port soon, rather than Spurgeon's understanding that she would try to lose herself in the Pacific, but this important piece of information was not passed to *Manoora*. Finally, the Naval Staff had ordered the monitoring of *Romolo's* radio transmissions and to have the ship tracked by DF bearings, should the Italian choose to transmit.

Spurgeon's team had available to them their orders, the advice that war with Italy was imminent, and knowledge that the Italian might choose scuttling instead of flight if war was declared. The Italian ship soon provided more intelligence. When *Manoora* regained contact on 7 June, *Romolo* had her boats turned out as if in preparation for scuttling and, despite *Manoora's* civilian appearance, from the Australian's manoeuvres she was clearly aware of *Manoora's* purpose. Spurgeon now had most of the essential

elements of intelligence he needed for successful performance of his mission – enemy position, course, speed, capabilities, likely intentions, and knowledge of friendly forces. And while the two ships steamed in company for the next two days, it needed only the announcement of hostilities for the capture plan to be put into effect.

The Naval Staff now intervened by deciding to call off the shadowing mission; Gill's official history suggests that this was because of uncertainty over when Italy would declare war. Burrell said of this instruction, 'I cannot remember my part in this decision, but I hope I said 'Is this wise?' It turned out to be a mistake.'[63] *Manoora* closed *Romolo*, embarked the Torres Strait pilot (who must have been a very relieved man) and, following an exchange of flag hoists wishing the Italian *buon viaggio,* turned away for Port Moresby. From the pilot, Spurgeon learned that *Romolo's* new intentions were to proceed to Yokohama, that she carried only a large-scale chart of the Pacific, that her maximum speed was only 12.5 knots, and that the Italians thought that a declaration of war was a month away. Then, when the ships were 160nm apart, the Naval Staff ordered the shadowing resumed.

It is not recorded what comment Spurgeon might have made on receipt of this instruction. He was now faced with the stern chase of a ship whose intentions could only be guessed at in a very large ocean. However, based on the presumption that *Romolo's* master had told the Torres Strait pilot the truth, the *Manoora* command team appreciated that the Italian would probably head for Truk in the Japanese-held Marianas to take on fuel. He would also select a track to keep well clear of the poorly-charted waters around the Solomon Islands. Spurgeon set course to intercept and requested air reconnaissance assistance. His appreciation proved correct, as the track chart of *Romolo* at Map 1 shows.[64] One other intelligence source, the Coastwatchers, might have spotted the Italian ship in the vicinity of the Solomons, but there is no specific evidence that they were able to assist, except by advising where she was not.

Spurgeon's plans were now disrupted a second time. The RAAF controlled air reconnaissance, and operational coordination was the job of the ACHs, of which one had now been established in Port Moresby, with Melbourne directing its operations. ACH Melbourne ordered Port Moresby to conduct a search for *Romolo* in an area southeast of the southern point of the Solomons on 10 June. Communications between the two headquarters were bad, and Melbourne remained in ignorance of whether the search had been carried out until late on that day. Then ACH Port Moresby revealed that it had searched, but in the wrong area, and that the aircraft had not had sufficient fuel remaining to search the requested position.

Fate had not yet finished with Captain Spurgeon and his officers. They had, again, correctly divined *Romolo's* movements, but the Y Service now muddied the waters with a succession of DF bearings from stations in Australia and New Zealand indicating that the Italian was well west of the position expected. Class A bearings from Awarua in New Zealand even suggested that *Romolo* had travelled 300 miles in a westerly
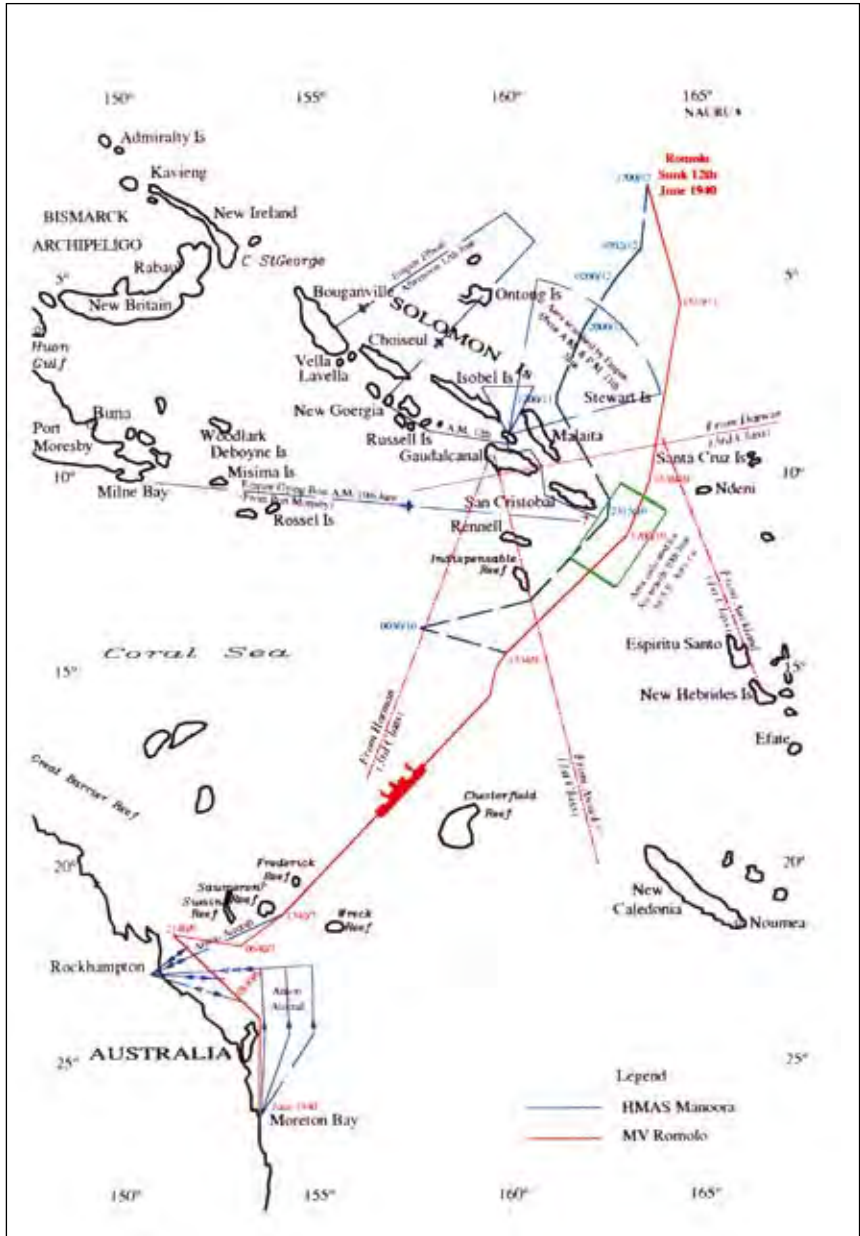
Map 1 - Pursuit of MV *Romolo* by HMAS *Manoora*, June 1940

direction between 1704 on 10 June and 0435 on 11 June, making good a speed of 28 knots![65] The aircraft sent by ACH Port Moresby was hampered in reaching the search zone east of the Solomons by headwinds, and was diverted to search further west in the area suggested by the DF bearings. It was then ordered to fuel in Tulagi and to resume its search to the northeast of the Solomons. Spurgeon must have been doubly disappointed to learn later from the Naval Staff that *Romolo* had been sighted by a British merchant ship at noon on 10 June exactly where he had thought she would be. Again, this piece of information was not passed to *Manoora*. Disappointment was to continue; the delayed reconnaissance aircraft was able to report to *Manoora* when leaving its patrol area on 11 June that nothing had been sighted north east of the Solomons. Reconstruction of tracks indicated that the aircraft had been within 20 miles of *Romolo* when it turned back to base.

But by 12 June *Romolo* was beyond the range of land-based Australian aircraft, and a sighting relied on a chance encounter with another British ship or the success of *Manoora*'s search. Spurgeon's attempts to launch his own amphibian – a process which required the ship to stop, crane the aircraft overboard and create a lee for it to take off – resulted only in the loss of an hour and damage to the aircraft before *Manoora* resumed the pursuit. To make up for the lost time, Spurgeon abandoned his previous curved track and steered north to 'cut the corner'. At 1120 on 12 June *Romolo* was again in sight*.* The climax of the hunt came at 1315 when, despite warnings from *Manoora* not to scuttle, including warning shots from her six-inch guns, the Italian ship emerged from a rainsquall listing heavily and furiously on fire. *Manoora*'s impressive performance in the first offensive action of the war on the Australia Station had not met with success.[66]

The Australian command and intelligence systems had not performed nearly as well. Lacking speed, *Manoora* was the wrong ship for the task, but Admiral Colvin had little choice.[67] The decision to cease shadowing indicates either a lack of resolve or poor intelligence. Some sympathy can be felt for Colvin, as one of his precious east coast assets seemed to be on a leisurely cruise to nowhere and was getting further away from her station. The Naval Staff's focus may have been on the fate of the Allies in Europe at this point, rather than the possibility of taking an Italian prize.

But the Naval Staff could take no comfort from the performance of the Y Service. Even Class A bearings taken of *Romolo*'s transmissions were considerably in error, and coordinated plotting of them seems to have been faulty, a mistake which would have been detected and corrected by an experienced COIC staff. The failures to inform Spurgeon of the Italian's fuel state and of the sighting by the British merchant ship also reveal procedural errors in the operational headquarters. One could also ask why the Naval Staff did not request RAAF assistance in tracking *Romolo* after calling off *Manoora* on 9 June. This might have alerted both ACHs to the need to pre-plan the conduct of searches for a ship at the limits of aircraft endurance from their normal operating bases.

The Italian motor vessel *Romolo* - scuttled, 12 June 1940

The incident revealed the very poor state of efficiency of the ACH system, as well as the limitations of Australia's air surveillance capability. Direction of air searches was also shown to need improvement, and communications were clearly inadequate between Melbourne and subordinate headquarters. One would have hoped that both RAN and RAAF had learned the lessons of the *Romolo* incident and made the necessary adjustments to organisation and procedures. However, as will be seen in the next chapter, the response to the very present danger of a powerful Japanese task force in the Coral Sea in May 1942 revealed that little had changed when it came to RAN–RAAF reconnaissance cooperation.

## Sinking of *Bartolomeo Colleoni* at the Battle of Cape Spada, July 1940

The British had sought to delay as long as possible the entry of Italy into the war. Even with the support of the French Navy, an enemy fleet on the flanks of its vital trade route through the Mediterranean to the Suez Canal and the Empire would pose a serious threat to the capability of the British to continue the war. Mussolini's decision was not a surprise. Sigint had warned of this intention up to a month in advance, but the fall of France, the neutralisation of the French Fleet and the beginning of hostilities with Italy on 10 June 1940 imposed huge burdens on an RN unprepared and under-equipped for war on two fronts.[68]

British intelligence on Italy was good, particularly on its navy. The British cryptanalysis organisation, the Government Code and Cipher School (GC&CS), had broken Italian naval codes during the Abyssinian Crisis of 1938, and the British Mediterranean Fleet had an active program of intelligence collection. As well, the RN had gained experience of opposing elements of the Italian Fleet during the Spanish Civil War, and had also managed to get a close look at some of the Italian ships.[69] However, the British had greatly overestimated the degree to which the Italian Navy and Air Force could cooperate in maritime strike and support operations, and it was greatly concerned for the rough handling it anticipated from the latter. Despite this, in another illustration of the lack of executive response to threats revealed by intelligence, no apparent effort was made to strengthen the AA defences of the ships of the Mediterranean Fleet.

These intelligence capabilities against the Italians suffered serious setbacks at the outbreak of war. First, the Italian Navy changed its codes and callsigns in early July 1940, and the Mediterranean Fleet was afterwards forced to rely on traffic analysis, DF and callsign recovery for most of its intelligence in the first year of the war.[70] Second, the dearth of British air reconnaissance assets made detection and localisation of the Italian Fleet a very sporadic matter. The Commander-in-Chief of the Mediterranean Fleet, Admiral Andrew Cunningham, was strongly inclined to take the offensive against the Italians, but was handicapped by a lack of aircraft and a somewhat unbalanced order of battle.[71] The vulnerability of Malta, just 60nm from Sicily, to air attack also forced him to withdraw most of the fleet to Alexandria in Egypt, which made reconnaissance of Italian Fleet bases even more difficult.

British strategy therefore developed two main features. The first was to bring the Italian battle fleet to action at a place and time of Cunningham's choosing, with strongly supported convoys between Alexandria and Malta and Gibraltar and Malta the bait. The second was the conduct of offensive sweeps through areas likely to be frequented by Italian commercial shipping, and the bombardment of Italian shore facilities in the Dodecanese by fast groups of cruisers and destroyers. These were designed to seize and hold the initiative locally, while tempting Italian ships to battle in smaller formations.

*Sydney* joined the Mediterranean Fleet in May 1940, and had already participated in sweeps along the African coast and towards the Adriatic, as well as the successful Battle of Calabria on 9 July. On 17 July she was ordered with five destroyers to conduct a sweep around Crete and off Piraeus, the port of Athens. Cunningham was a strong believer in giving his commanders as few written orders as possible, and *Sydney*'s captain, John Collins, stated that he was despatched on this mission with verbal orders, confirmed only by a sailing signal.[72] Collins was to provide support for a division of four British destroyers conducting a night anti-submarine patrol north of Crete, before proceeding with another destroyer to an area off Piraeus, and then returning to Alexandria.

Captain John Collins, RAN

Mediterranean Fleet Headquarters did not tell their ships that there were submarines north of Crete or that there would be Italian shipping off Athens, and there is no firm evidence that the British were sure of any Italian naval units operating in the vicinity. Neither the destroyer division nor Collins were provided with specific search areas.

However, Collins and his command team did have some intelligence to work with. They and the other British ships had good identification details on every Italian naval ship and submarine, and some appreciation of enemy capabilities from the experience drawn from previous encounters.[73] *Sydney*'s team, however, would have been unclear as to tactics the enemy might adopt when and if they sighted the British force, and they had no knowledge of the whereabouts or identity of any enemy unit. Collins' force had no shore air-reconnaissance support, and *Sydney*'s Walrus reconnaissance amphibian had been left in Alexandria after incurring bomb damage. Collins did not have any

personal knowledge of the British destroyers, but he was confident about the abilities of his own ship and its company. In his report on the battle to come, he said:

> It was fortunate that HMAS *Sydney* had, in company with the remainder of the 7th Cruiser Squadron, been in action twice in the preceding three weeks, and I was thus in the happy position of taking a ship into action that had already experienced two successful encounters with the enemy.[74]

The response to be adopted if any enemy ships were discovered would be dictated by the circumstances at the time, and would rely on the commonsense and training of the officer in tactical command, Collins.

John Collins was a rising star in the RAN. A member of the first entry into the RAN College in 1913, he had served in a British battle cruiser in the Grand Fleet during WWI and later become a gunnery specialist. He was the gunnery officer of the cruiser *Melbourne* during that ship's exchange tour with the Mediterranean Fleet in 1926. He helped commission the new heavy cruiser *Australia* in 1928 and served for two years in the Admiralty's Plans Division before standing by the new cruiser *Sydney* during her construction, and as executive officer during her first commission. After 18 months in Navy Office, he was posted in command of *Sydney* in November 1939. Very much a product of the age, he was Australian undoubtedly, but one very comfortable with the RN. He was also familiar with the organisation and ethos of the Mediterranean Fleet.

This experience was the crucial element in the battle about to take place. Collins and his command team appreciated that Italian reconnaissance aircraft had not yet detected the force, but that the destroyer division would still be within close proximity to Italian airfields at daybreak before they made their return run for Alexandria. If *Sydney* were to leave the destroyers' vicinity to fulfill the mission off Piraeus too early, she would not be in a position to provide any support if the division was attacked before getting into open waters. Employing their knowledge of the likely mode of operations of the Italian Air Force and of airfields in the area of operations, Collins decided to remain relatively close to the destroyers.[75] Preserving radio silence, he reported his intentions neither to the commander of the destroyer division nor to Fleet Headquarters.

The Battle of Cape Spada, as the Italians know it, took place on the following morning, 19 July, when the four British destroyers sighted two Italian light cruisers. The Italians had been sent to attack British shipping operating between Greece and Turkey, and to pass north of Crete to be off the eastern end of that island at dawn on 19 July. The encounter surprised both sides.[76] The British ships had not been sighted the previous day and the Italians had not launched their morning air patrols. The destroyers radioed an enemy contact report, alarming Fleet Headquarters and alerting *Sydney*, which turned to close their position. The destroyers were considerably outgunned and could not outrun the cruisers. *Bartolomeo Colleoni* and *Giovanni della Bande Nere* were the

*Sydney*'s 'A' and 'B' turrets

The Italian cruiser *Bartomelo Colleoni* after the engagement
with HMAS *Sydney* and several Royal Navy destroyers

fastest cruisers in the world on commissioning in 1931, with a potential speed advantage of eight knots over the British ships. The only support available was *Sydney,* thought to be about 100 miles, or about three hours, away.

When *Sydney*'s salvoes began falling around the Italian ships only an hour after the first contact report there was considerable relief on the British side.[77] The Italians were dismayed, having no prior knowledge of *Sydney*'s presence and believing that the destroyer accompanying her was a second cruiser. In the chase that followed, *Bartolomeo Colleoni* was stopped and sunk and *Bande Nere* damaged and driven off. A track chart of the battle, based on Gill's account in *Royal Australian Navy, 1939−1941*, is at Map 2.

At first sight, intelligence would appear to have made little contribution to the outcome of the battle, however, this is not the case. Collins' decision to remain relatively close to the destroyer division was based on the knowledge that Italian air reconnaissance of and attack on the destroyers was a strong possibility. Similarly, he resisted what must have been a powerful argument for breaking radio silence to inform the destroyers and Cunningham of his altered plans because of the realisation that the Italians would probably intercept his transmission and his position would be revealed.[78] While he and his staff might have wished for more information on which to base their action plan, especially the size of the cruisers they were speeding to intercept, they made use of what they had to deadly effect.
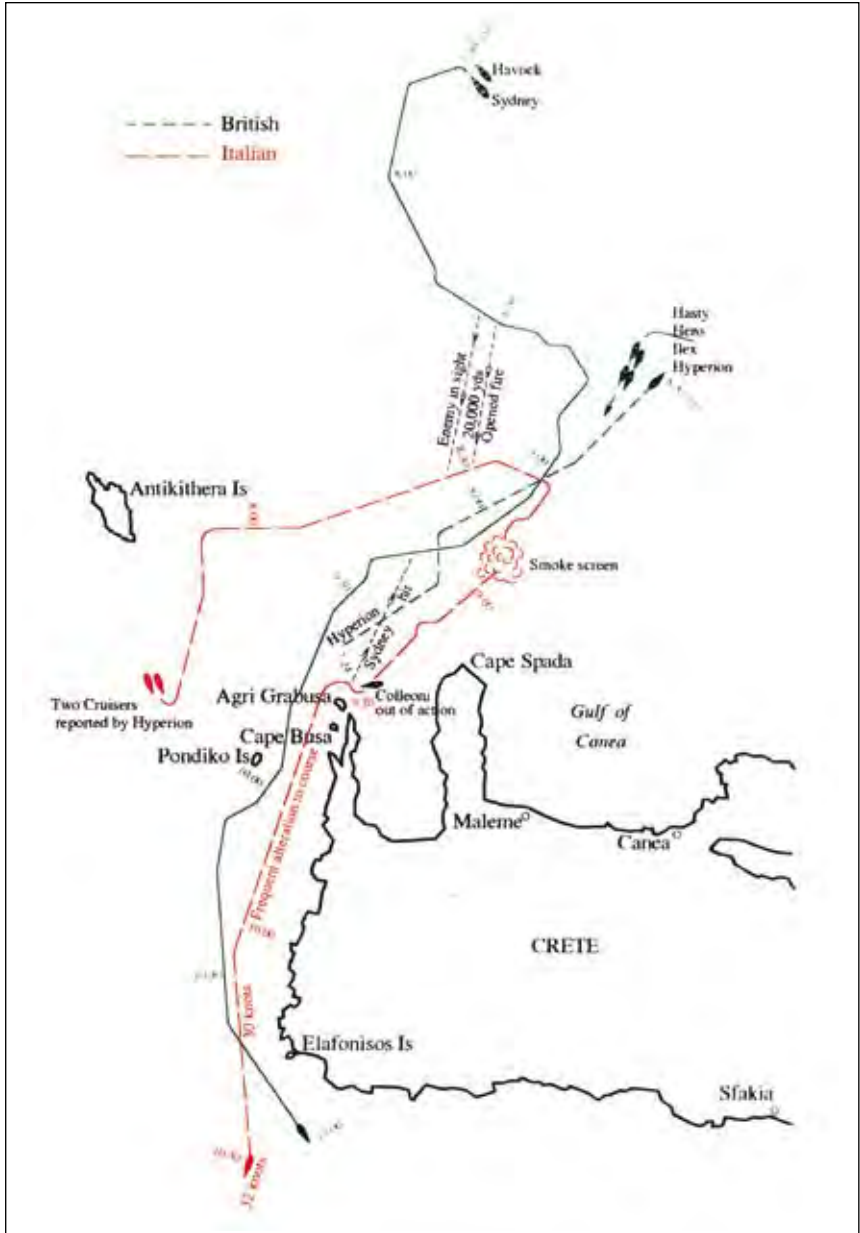
Map 2 - Battle of Cape Spada, July 1940

Admiral Cunningham had schooled his commanding officers in the need to take the initiative in encounters with the enemy. In doing so he was applying his belief, derived from intelligence, that the Italian Navy was unwilling to risk battle unless the odds were heavily in its favour. The correctness of the appreciation and the tactics derived from it was repeatedly proven in the Mediterranean fighting to follow. Cunningham's covering letter to the battle reports from his ships on the Cape Spada action begins:

> The credit for this successful and gallant action belongs mainly to Captain J.A. Collins, CB RAN, who by his quick appreciation of the situation, offensive spirit and resolute handling of HMAS *Sydney*, achieved a victory over a superior force which has had important strategical effects. It is significant that, so far as is known, no Italian surface forces have returned to the Aegean since this action was fought.[79]

## The *Coup de Force* in New Caledonia, September 1940

The capitulation of France to the Germans in June 1940 created considerable disquiet in Australian political and defence circles because it raised for the first time the spectre of a Vichy-controlled New Caledonia.[80] The potential adoption of a pro-Japanese stance by Vichy might facilitate that island falling under Japanese control, and its nickel production might be cornered by Japan for use in its own war industries.[81] At the same time, Australia became critically aware of the inadequacies of its relations with and intelligence on New Caledonia. These tended to be of a political rather than a military nature. The NID had been building up its knowledge of the French colony since 1927, when *Adelaide* conducted an assessment of the defences of Noumea. The District Intelligence Officer Sydney consolidated available intelligence in the New Caledonia edition of the RAN Port Directory in 1932, and additions were made after a visit by HMS *Laburnum* in October 1933. There was a further large update in October 1934, and a report on the defences of Noumea by HMAS *Canberra* in November 1936 observed that they were in poor condition.[82]

New Caledonia also featured in several ASIRs in 1939, noting an increased Japanese interest in iron and nickel extraction, a growing Japanese presence in the commercial activities of the colony, and a French Government plan to spend FF30 million on defence works in New Caledonia. In March 1940, after he had been sent to the island to advise the colonial government on the construction of a military seaplane base at Noumea, Dr Bradfield of the Australian Department of Civil Aviation furnished a comprehensive report on the island. Bradfield stressed the inroads the Japanese were making in the island's extractive industries, noted that new airfields were being built, and added that some anti-aircraft defences had been constructed.

DNI Long had also organised some human intelligence sources in Noumea. He had arranged to have William Johnston appointed as ARO Noumea on 15 April 1940.[83] He had also organised through Lieutenant Colonel Maurice Denis, the military commander in Noumea, that a French naval officer would provide NID with naval intelligence. However, this officer was issued only with a simple code and not with any of the British naval reporting codes – a very prescient precaution.

As well, there were many commercial links between the two countries, but French economic measures had always served to keep the relationship between Australia and its colony at arms length. The British Foreign Office had reserved to itself the right to negotiate on behalf of Empire interests with the French. The new situation made the first stricture obsolete, while the Foreign Office had many higher priority matters in connection with the French capitulation and intimated that it now expected the Australians to deal with the issue of New Caledonia.

The Australian Government immediately recognised its great need for more information on what was happening in Noumea. The Governement knew that the governor, M. Georges Pelicier, at the urging of the New Caledonia General Council, had declared that his government would continue the war: Pelicier telegraphed this declaration to London, Canberra and Wellington on 24 June. But, as it became clear that Vichy had every intention of taking the whole of the French Empire out of the fight, concern about Pelicier's ability to honour his commitment grew. The Australian Government had already asked Britain to obtain US Government guarantees for the security of New Caledonia to pre-empt any Japanese move. In the meantime the Australian Government was developing a plan to build economic linkages with New Caledonia and, in mid-July, agreed to take a sizable proportion of the island's refined nickel production to keep the industry going. However, the Australians seemed unaware of pressure growing in Noumea for the governor to decide on the future allegiance of the colony.[84]

Major relations with the French colony were effected through the British High Commissioner for the Western Pacific, headquartered in Fiji. In addition, direct British contact with the French authorities was a daily event in the governance of the New Hebrides condominium, where Mr Blandy represented the British and M. Henri Sautot the French. Needing to have advice that was independent of the British, the Australian Government decided in mid-July to appoint Mr Bertram Ballard, a French-speaking lawyer, to Noumea to observe and report.[85] However, at the request of M. Pelicier, his arrival was delayed until the following month.

Meanwhile, in New Caledonia relations between governor and populace broke down over his publication on 29 July of the Vichy constitution laws, in repudiation of assurances given to the General Council on 24 July. A popular movement to rally the colony for General Charles de Gaulle was mooted, but no leader emerged willing to take the treasonous step of defying Vichy. Pelicier, afraid for his life, pondered leaving the colony and asked for the Vichy sloop *Dumont d'Urville* to be sent to Noumea. The

ship arrived on 23 August, on the same day as Ballard. While events had seemed to be moving under their own steam towards a declaration of the island for de Gaulle, the Vichy Government's reinforcement of its military power changed the balance of forces. Further, it dismissed the vacillating Pelicier on 28 August, appointing in his place the staunchly loyal military commander, Lieutenant Colonel Denis.

The Australian and British governments watched the unfolding drama with unease. The British thought New Caledonia would swiftly declare for de Gaulle if the latter 'despatched a gunboat' and officials to take over the administration. They also had a candidate for governor, M. Henri Sautot, the French Resident Commissioner in the New Hebrides Condominium, who had successfully rallied French interests in that colony to the Free French side. The Australian Government did not believe that things were quite so simple, and stalled until it could receive first-hand accounts of the situation in Noumea from Ballard. In fact, it believed an accommodation with a Vichy-controlled New Caledonia would be the most desirable outcome. The British were well aware that such an accommodation was impossible. They had been reading Vichy military and diplomatic codes from the fall of the French Government in June, but they seem not to have been prepared to share this information with the Australian Government.

Once in Noumea, Ballard was able to advise the Australian Government of the true situation. He reached the conclusion that neither the Australian nor British governments had a correct understanding of the situation. Although de Gaulle himself had embraced the 'gunboat' option, and was ready to appoint Sautot governor of a Free French-ruled New Caledonia, he had no gunboat, there was no Gaullist party in evidence in Noumea and there was the matter of the superior military force still controlled by Denis. Ballard's dispatches convinced the Australian ministers to act. The only 'gunboat' superior to the Vichy sloop available was the venerable light cruiser *Adelaide*, commanded by Captain Harry Showers RAN, and in early September the ship was ordered to Vila to be prepared to convey Governor-designate Sautot to Noumea.

The intelligence on New Caledonia that had been reaching the Naval Staff arrived fourth hand, and it would have been difficult for British bias not to have crept in. The pre-eminent British view was of a population ready for Gaullist rule. The Australians seem to have recognised that this was a pleasant fiction, based on the failure of most other French colonies to declare for de Gaulle, and they now had Ballard's views to support this. Vichy's dismissal of Pelicier and the arrival of *Dumont d'Urville* showed that it meant to retain control of the colony. As well, the British were now supplying Australia with some of the intercepted messages from that ship to Paris, showing her commander's determination to uphold Vichy rule and revealing his thoughts on the situation ashore.[86] In planning *Adelaide*'s mission, the Australian chiefs of staff recognised that they did not have the wherewithal to garrison or defend New Caledonia from attack. As well, the Naval Staff had neither firm information on the state of Noumea's defences nor of the willingness of the Vichy governor to use them to repel

foreign ships. In the end, *Adelaide* was ordered to Vila to collect M. Sautot and convey him to Noumea, using 'discretion', with the use of force prohibited. CNS Colvin had insisted that the issue of the use of force be discussed by the War Cabinet, and ensured that his view – that it should not be used – prevailed. On 10 September the War Cabinet instructed CNS that *Adelaide* should only respond if fired upon at Noumea.[87]

Showers' orders were therefore based on an inadequate understanding of the situation ashore in Noumea. The rosy view of a General Council and populace waiting to welcome its Free French governor was wishful thinking, as was the impression that Vichy officials would easily acquiesce in the coup. Equally poorly based were beliefs that the Governor of New Caledonia could maintain a nominal allegiance to Vichy while maintaining a business-as-usual attitude in dealings with Australia in the prosecution of the war.[88]

The man at the centre of this operation, Captain Showers, was another of the RAN College 1913 entry. Not as flamboyant as his term mate Collins, Showers may have felt somewhat left out of the action by his posting in command of the obsolescent *Adelaide*, engaged in protecting convoys on the Australia Station. His task appeared to have none of the glamour of his contemporaries serving in their fine new cruisers with the Mediterranean and East Indies Fleets. However, he was clearly a man of sound judgment, and throughout the trials to come he applied fully the old naval adage, 'Rules are for the guidance of wise men and the blind obedience of fools'. He played his limited hand very well indeed.

As Showers' own report on the events of September reveals, on arrival in Vila he became quickly convinced that the necessary organisation for the reception of Sautot and the handover of power was not in place in Noumea.[89] Guided by Blandy and a representative of the Free French movement who arrived in Vila on 8 September, and hastened by intelligence that a second Vichy sloop was expected to arrive in Noumea in a week, Showers and his staff proceeded to draft their own operational plan.[90] This was discussed with Sautot before being sent to the British consul in Noumea for discussion with the de Gaulle Committee. The essential element of the 'Showers Plan' was the necessity for the de Gaulle Committee to make concrete arrangements for Sautot's arrival.

The imminent arrival of Vichy naval reinforcement, the existence of de Gaulle's appointed representative a few hundred miles away, the active involvement of Commonwealth military forces and, above all, a plan for the *coup de force*, all galvanised the 'committee' into action. To that point it had been a 'committee' of one, but Showers' proposal caused the rapid amalgamation with other groups to provide it with the gravitas needed to set events in train.[91] They agreed on the plan on 13 September and organised a popular demonstration in support of de Gaulle to occur on 19 September.[92]

In accordance with new orders, Sautot embarked in a Norwegian tanker for the passage to Noumea on 16 September which, escorted by *Adelaide,* arrived off Noumea early on the morning of 19 September. Challenged by a boat from *Dumont d'Urville*, Showers stood off the port. Shortly after 0800 the first news of the uprising, and the state of martial law declared by Governor Denis in response, was received via a boat from shore. At this point, the port, the town and all the roads leading to it were in Vichy military hands, and the fort overlooking the port had orders to fire on *Adelaide*. Affairs did not bode well for the successful execution of the plan, but Showers decided to await the events of the day. He recognised that *Adelaide* could be in some danger from the guns of the fort, but he was more than a match for *Dumont d'Urville*, especially because many members of her ship's company had been deployed ashore on tasks supporting Governor Denis.

Later in the morning, Showers embarked M. Sautot in *Adelaide*, and shortly afterwards a boat from the de Gaulle Committee finally appeared with the news that the popular uprising had been successful. Sautot was despatched in the boat to shore, and nothing more was heard that day. A morning visit to *Adelaide* by Ballard and the British consul Johnston on 20 September brought a request from Sautot that de Gaulle dismiss Denis as military commander and appoint a Captain Michel in his place. In a second visit later that day, Ballard advised that law and order appeared to be breaking down, and that 'the possibility of an unfortunate incident' during the night was therefore very great. The nature of the possible incidents was not revealed by Showers, but Wilfred Burchett, an Australian journalist who was observing the mood of the Noumea crowd, suggested that some Gaullists wanted to take drastic measures to entrench their hold on power through a pogrom against Vichy forces and their supporters.[93] Ballard also conveyed Sautot's request that *Adelaide* should remain a further 48 hours. The Naval Staff agreed that Showers should remain in Noumea until further orders, and this stretched into a further five days.[94]

On the same day, the Dominions Office advised that the Vichy sloop *Amiral Charner* was believed to have sailed from Saigon for Noumea on 14 September with 100 troops embarked, and that Governor Denis had been ordered to use force if necessary to quell the Gaullists. Although the night passed quietly, the morning of 21 September brought further news of the confused situation ashore and a formal protest from the commander of *Dumont d'Urville* at the presence of *Adelaide* in French waters. The Australian Government now had to consider the possibility of the arrival of a second Vichy warship, while the outcome of the coup remained unclear. It already had advice from Sautot that all the military officers of the garrison were against him, and that he feared a second coup after *Adelaide's* departure.

On 22 September the Australian Government cabled the Dominions Office exploring the likely reaction in London if force were used to expel or neutralise *Dumont d'Urville*, and to deter *Amiral Charner* from entering Noumea. London responded on 24 September

approving the suggestion, but in Noumea Showers had already begun to interpret his powers of 'discretion' in broad terms to resolve the impasse, and a forcible solution was not required.[95]

In brief, following an unsuccessful revolt by the military leadership on 23 September, working in concert with Ballard, Showers convinced Governor Sautot to arrest the remaining Vichy leadership to forestall any attempt to reassert authority and send a letter (drafted by Showers) inviting *Dumont d'Urville* to depart. After the letter was rejected, Showers received the governor's permission to intercede, and in a series of meetings convinced *Dumont d'Urville* to sail from Noumea. He also arranged for the arrest and banishment of Vichy loyalists in a repatriation ship via Australia, providing a guard from his own ship's company with concise instructions on how to ensure the passengers did not succeed in any attempt to sabotage or take over the ship.[96] Finally, he and Ballard intervened in a number of 'payback' disputes between members of the new government and the previous one to ensure that the transfer of power was unmarked by incidents likely to foment difficulties for the new administration.[97]

Showers' sure hand in these activities shows a masterly grasp of the situation. Using the information on background and current events provided by Ballard and Johnston, and by frequent conferences with Sautot, he was able to devise a plan of action which would defend the new administration from its own excesses of zeal and, at the same time, would rid the colony of the threat of reprisals from Vichy and remove the core of Vichy support. This was done in such a manner as to uphold the prickly *honneur* of both sides. The successful conclusion to his mission was due to his excellent use of the intelligence provided by local sources, both British and Free French, and the clear mind of Commissioner Ballard. The contribution made by Australian intelligence was slight. It was left to the men on the spot to do the best they could, using their own resources.

The success of the 'Showers Plan' ensured that New Caledonia remained in the war on the Allied side. The fact that the *coup de force* was accomplished with no loss of life, despite the massive show of strength by Vichy and Gaullist sides, is a tribute to Showers' steadying influence and cool appraisal of the situation. For this he received commendable recognition.[98] The Secretary of the Department of External Affairs wrote, 'I was also struck with the evidence of initiative, clear thinking and decision of the Commanding Officer in most difficult and confusing circumstances'. The RAN acknowledged that Showers had carried out 'a difficult task with excellent judgment, tact and ability'. His more tangible reward was a series of postings, in command of the light cruiser HMAS *Hobart* in 1942, and to the heavy cruiser *Shropshire* in 1944. Later in 1944 he was promoted to be the Second Naval Member, and he completed his service as a rear admiral.

## Actions against German Raiders in the Indian and Pacific Oceans

One of the most difficult problems faced by the Naval Board in the first two years of the war was that of German surface raiders. Raiders operated on all British naval stations, and coordination of the struggle to detect and eradicate them was led by the Admiralty. But action against them and defence of shipping were local issues, and the Australian operations and intelligence communities were again tested in this demanding field.

Before WWII, the German Naval High Command did not believe that it could challenge the RN in battle before the completion of its major rearmament plan, the Z Plan, in 1945. However, since Hitler directed that his attack against Poland would take place in 1939, the High Command instead had to prepare for the lesser task of economic warfare against Britain.[99] The campaign was waged by German coastal forces in the North Sea, supplemented by Luftwaffe attacks on coastal shipping and convoys in the vicinity of German continental bases, by the submarine force in oceanic and distant waters, and by commerce raiders, of both warships and auxiliary cruisers.

The Germans accurately assessed that these commerce raiders would compel the British to divert considerable resources from other tasks to counter their sinking of ships, disruption to transport, sowing of mines in shipping focal areas and creation of alarm and confusion. They were to operate in the vastness of the oceans in search of targets among unescorted merchantmen, avoiding contact with Allied warships and endeavouring to ensure that their victims were unable to report their presence by radio.[100] After the sinking of *Graf Spee* in December 1939, the warships were recalled to Germany and their places taken by the first of a planned fleet of 26 of a new class of commerce raiders, the *Handelsstörkreutzer* (HSK).

These HSKs, although heavily armed, were merchant ships, and by the use of false deckhouses and funnels, differing paint schemes and alterations to masts and rigging, they could change their outward appearance to confuse even skilled observation. Armament varied, but the majority carried six 15cm guns in individual mounts, smaller calibre close range and anti-aircraft guns, deck- and underwater-mounted torpedo tubes and mines. Normally they carried aircraft for scouting and spotting. [101] They embarked considerable stocks of fuel, food and ammunition and were able to loiter for months without replenishment. A system of resupply by blockade-runners or ships from neutral ports – and even submarines later in the war – ensured that they need have no contact with populated areas.

HSKs were essentially immune from detection by the Allied Y Service, as they used an Enigma code variant which remained unbroken to the end of the war. Any essential transmissions were made using a form of signal-compression code known as *Kurtzsignal*, relatively difficult to intercept and unintelligible to all but the German Navy.[102] They carried sufficient equipment and operators to listen for Allied merchant

ship and warship transmissions on frequencies supplied by Germany, and had HFDF to take bearings of transmitters. HSKs all carried a detachment from the German Navy's Sigint organisation, *B-Dienst*, capable of intercepting and decoding British naval and merchant ship transmissions using codes captured from their prey. Some even carried British transmitters to confuse radio fingerprinting processes by the Y Service. By late 1941, one of them carried radar.

Detection was difficult. There were occasional warning signals – 'QQQQ' transmitted by a victim before the raider destroyed its radio – or wreckage or survivors discovered by patrolling ships. Short of destruction of the raider, there were only three occasions when first-hand information became available, all as a result of surface engagements between HSK *Thor* and British armed merchant cruisers. The HSK was victorious in all three: two of the British ships survived, one was sunk. Fixes from the Admiralty DF network could suggest raider activity, and there was always the chance of detection by a reconnaissance aircraft. Occasional successes, such as the sinking by *Canberra* of two raider supply vessels in the Indian Ocean in March 1941, revealed that the Germans were using captured British documents, such as the Admiralty's *Defence of Merchant Shipping*, to modify their attack strategies and anticipate the reactions of their intended victims.[103]

The Allies were not even sure how many there were, still less their identities. Thus HSKs were given alphabetical designators in the order their existence was suspected. As information on their true identity, appearance and movements slowly built up, it was communicated by intelligence staffs to commands.[104] An additional aid to warship commanding officers was the VESCAR system, which transmitted a weekly message to warships giving the identities of Allied shipping expected to be within each station's boundaries.[105] If a warship challenged a merchantman, a correct reply meant it could not be an HSK, but it left open the question of those that did not respond to the challenge, sent an incorrect reply, or replied with the identity of a ship not on the VESCAR list for that station. The option of resolving this issue by radio enquiry to headquarters was open to the warship, but would require breaking radio silence, which could also alert a real raider to her presence.

The Admiralty issued a series of instructions on the HSK situation in Confidential Admiralty Fleet Order (CAFO) 422/1940, 'German Merchant Shipping' on 21 March 1940. This divided the German merchant fleet into categories and suggested those that possibly had raiding roles. On 23 January 1941, this instruction was updated by CAFO 143/194, 'Raider Identification', produced as a handy guide to identifying German merchant vessels disguised as raiders, although none were specifically identified as such. This CAFO provided photographs and silhouettes of possible HSKs. As to what action a commanding officer should take on encountering a raider, CAFO 480/1941, issued on 6 March 1941, ordered that:

> No enemy merchant ship captured should be sunk unless the strongest
> military reason exists. Every ship may be of the greatest value as the
> war progresses. If a prize crew cannot be spared at the moment one
> possibility is to leave the ship stopped with caretakers on board.[106]

On the Australia Station, this mode of warfare was expected as British advice had shaped
the RAN for trade protection duties. But the Admiralty had requested and achieved
the detachment of the bulk of the Australian cruiser force for service in British and
Mediterranean theatres of operations. By July 1940, six HSKs had been deployed, and
later that year, when the first indications that raiders were active in the Pacific and
Indian Oceans came, there were only two cruisers on the station.[107]

HSK *Pinguin,* with her prize *Passat*, a Norwegian ship captured off Western Australia on
7 October 1940, mined the approaches to Bass Strait and major east coast ports before
returning to the Indian Ocean in November.[108] Two others, *Orion* and *Komet,* attacked
traffic to the east of New Zealand before turning north to Nauru, where they sank five
phosphate ships between 6 and 8 December. Although alerted by authorities on Nauru,
Australia had no warships to send. The survivors from these and other attacks were
landed on Emirau Island in New Guinea by the raiders later that month.



The German raider *Pinguin*

Even had a cruiser been available, in December 1940 her commanding officer and his staff officers would not have had much by way of intelligence on their quarry. But events moved rapidly the following year. In 1941 a cruiser would have had the overall summaries provided by the Admiralty and COIC Australia.[109] DNI Long distributed two reports based on information received from Emirau Island, including a booklet titled 'Report on Pacific Ocean Raiders (*Manyo Maru, Narvik* and *Tokyo Maru*)', published in March 1941. RACAS John Crace published and promulgated the 'HMA Squadron Intelligence Summary' of 20 May 1941, in which were three items on raiders. Additions to the summary included appreciations of the raider situations in the Indian and Pacific Oceans issued on 24 July 1941, and a 'list and brief description of known enemy raiders' dated 25 September 1941.[110]

The supplement to the Admiralty's Weekly Intelligence Report (WIR) 64 of 30 May 1941 contained photographs or sketches and an outline description of the appearance of each raider. WIR 81 of 26 September 1941 provided a comprehensive description of the suspected activities of the HSKs known to be at sea and also updated the tactical considerations outlined in the two CAFOs. There is room for some doubt as to whether HMA Ships received their copies of the WIR series in a timely fashion. As WIRs were printed booklets the Admiralty distributed them by hand. In Australia's case it seems clear they were normally sent by sea.[111] The appendix to COIC Weekly Summary 19 of 22 September 1941 reviewed known or suspected raider activity in the Pacific and their possible present operating areas. Identities and activities were updated in Weekly Summaries 21 and 23, the latter also describing the supply vessels thought to be engaged in supporting the HSKs' operations.

However, a cruiser's officers would not have known the precise whereabouts of any HSK or its intended movements, nor whether it might have been in company with another raider or a supply ship. They could have had reasonable certainty that there would not be submarine operating in support, as the Germans did not send submarines into the Indian Ocean until 1942. They would not know the precise appearance of their target. They would have been clear on the HSK's aims and objectives, and its general capabilities in terms of armament, speed and endurance, but might have had some doubt on the tactics likely to be employed by the enemy. They could not have known the state of the raider's weapons, ammunition or fuel, nor of any hindrance to its offensive capabilities. A cruiser command team could have been reasonably sure that the HSK had good general knowledge of their own ship and its capabilities, and that it may even have been aware of her presence and mission through its *B-Dienst* detachment.

The weekly VESCAR summary of Allied merchant shipping likely to be found in their search area, descriptions of merchant ships in *Lloyd's Register* carried by all RAN ships, and Admiralty identification cards in the 'German Armoured Merchant Vessel' series completed the cruiser's intelligence suite. In addition, on 21 January 1942, all cruisers and armed merchant cruisers on the Australia Station were issued with copies of a

set of drawings produced by the Dutch Navy in the Netherlands East Indies covering German ships known to have been sheltering in neutral ports in the Far East since the outbreak of war.[112]

On 19 November 1941, *Sydney,* returning to Fremantle from an escort task to Sunda Strait, encountered HSK *Kormoran* to the west of Geraldton. Both ships were sunk in the subsequent action, and the mystery of why *Sydney* was manoeuvred into a situation where her overwhelming speed and firepower were negated by proximity to the HSK continues to puzzle and perplex historians. What can be ascertained from German reports is that *Sydney* was suspicious of *Kormoran*, which used the identity of the Dutch ship *Straat Malakka*, but her command team made use neither of the cruiser's aircraft nor of radio interrogation of the VESCAR system to resolve this identification problem.

Captain Joseph Burnett of *Sydney* and his officers had all the raider intelligence that the system could provide, with the possible exception of the latest WIR. Burnett himself had the knowledge gained in his previous posting as Director of the Operations and Intelligence Division of the Naval Staff. *Sydney's* actions suggest that she was closely following the instructions of CAFO 143, but she may also have been attempting to board *Kormoran* in accord with the sense of CAFO 480/1941. The final answer will never be known, but had the intelligence system provided *Sydney* with sufficient information to perform her role successfully?



The light cruiser HMAS *Sydney* lost with all hands following an engagement
with HSK *Kormoran* on 19 November 1941

The loss of *Sydney* with all hands would suggest a negative response but, despite the high cost, *Kormoran* was indeed sunk. *Sydney*'s fate, and other incidents during HSK interceptions, prompted the Admiralty to issue a reminder to its ships about methods of eliminating doubt about the identities assumed by raiders, and the procedure to be used in challenging them. It also warned commanding officers about underestimating the fighting power of HSKs. This suggests that the Admiralty view was that Burnett and his team had not used the intelligence at their disposal appropriately.[113]

More than a year later, *Adelaide* escorting a convoy well off the West Australian coast encountered a suspicious ship. Unable to get confirmation of its claimed identity from the VESCAR system ashore, *Adelaide* remained at a safe range while the command team determined from the identification cards that the ship was possibly the German blockade-runner *Ramses*. The suspect appeared to be preparing to scuttle, at which stage *Adelaide* opened fire, fearing that it was a *ruse de guerre* preparatory to launching an attack on her. The ship sank shortly afterwards, and survivors confirmed its identity as *Ramses*. *Adelaide* had not known that she was not faced with an HSK, but had used her intelligence resources correctly to prevent any recurrence of the fates of the British armed merchant cruisers and *Sydney*. Her commanding officer made specific reference to the value and accuracy of the 'German Armoured Merchant Ships' identification pack.[114]

It was superior intelligence that defeated the raider threat world-wide. From a standing start in 1940, by late 1941 there was sufficient information available to any cruiser commanding officer to make appropriate decisions about closing suspicious merchant ships, especially those that did not appear on the weekly VESCAR message for their area. In all probability, it was not a shortage of intelligence but rather possible confusion about the appropriate actions to be taken on detecting an HSK that caused incidents such as the loss of *Sydney*.

## Outcomes

The action against MV *Romolo* revealed serious shortcomings in strategic and operational intelligence, air reconnaissance and the coordination of air and naval operations. Spurgeon's intelligence jigsaw had many missing pieces, and it was his professionalism which led to the interception and sinking rather than the operational planning and intelligence support given by Navy Office.

Collins and his command team used background intelligence on their enemy, rather than the meagre intelligence they had on Italian Navy dispositions, to good effect off Cape Spada. They were, of course, operating in a completely different milieu, where the Mediterranean Fleet Commander led by example and encouraged his officers to use their initiative. By hypothesising the very worst case for the destroyers under his

protection from his knowledge of Italian operating procedures, Collins was able to position *Sydney* so as to deliver the best outcome. His intelligence jigsaw was almost complete.

The New Caledonia incident demonstrated even more alarmingly the Australian Government's tenuous command of strategic intelligence directly affecting its security. Australia's knowledge and understanding of events in the colony were initially as faulty as those of the British. In this case there was some support for *Adelaide* from Melbourne, but even DNI's agents in Noumea needed a leader as cool and competent as Captain Showers and the excellent support of Commissioner Ballard to ensure the success of the *ralliement* for de Gaulle. These gentlemen succeeded in their mission, despite having been presented with a puzzle containing pieces from two quite different jigsaws.

The German raiders were very difficult intelligence and operations targets. DNI did well to make the significant Australian contribution to the Admiralty's search for an effective response. There is no convincing answer to the question of why this intelligence failed to influence the decisions of the command team in *Sydney* when similar information served *Canberra* well in sinking the two German supply ships, and when *Adelaide* intercepted *Ramses.* Intelligence would appear to have been quite adequate for the task in all interceptions of HSKs by RAN ships. The jigsaw was not complete, but the picture was quite clear.

Both the Naval Staff and the NID were learning, but a major problem was the acute shortage of trained and experienced RAN officers to fill all the command positions at sea and to take on the responsible and demanding tasks of senior staff officers ashore. The rapid expansion of the RAN from the outbreak of hostilities strained the officer corps and the senior non-commissioned officer cadres, many of whom gravitated to principal billets in the sea-going navy. This left the no-less important shore tasks to be filled by others, especially those recently entered. The NID profited from this influx of new blood with different skills and outlooks, but naval operational commands may not have done so to the same extent. Australia was not the only country whose defence preparedness was found wanting by the outbreak of WWII . But the unique situation of the RAN – a piece in the prewar Imperial naval jigsaw – left it struggling to meet its own significant responsibilities for national defence when Admiralty attention was focused elsewhere.

# 3. Facing the Japanese Onslaught, 1941–42

The Japanese attacks in Southeast Asia on 8 December 1941 had been long and widely anticipated in Australia. The occupation of former German island territories north of the equator in 1914 by Japan, despite apparent British promises that they should come under the control of Australia, demonstrated two things to Australian minds. First, Japan's trustworthiness as an ally was severely compromised and, second, the ability of Britain to enforce its will in the Far East through the power of the RN became suspect.[115] Ironically, Britain's successful espousal of mandate status for the islands rather than their cession outright to Japan, and the British Government's disinterest in backing Japan's bid for the outlawing of racial discrimination in the League of Nations Covenant, caused the Japanese to harbour similar doubts about British reliability and trustworthiness.[116]

In the interim, the IJN, which had modelled itself on the RN, proved a most useful ally to both Britain and Australia. The IJN heavy cruiser *Ibuki* was one of three escorts for the first convoy of ANZAC troops to the Middle East in November 1914, when the presence of the German *Emden* was detected and HMAS *Sydney* (I) was detached to intercept her. Japanese cruiser squadrons patrolled Australian east and west coasts against German raiders in 1917. A joint patrol force off the Canadian west coast was put under the command of a Japanese admiral. Japanese destroyers served with distinction in the Mediterranean under the orders of the RN Commander-in-Chief Malta, and IJN officers were awarded high British honours for their services during the war.

Australian interfaces with the IJN were fleeting, but as a result of one small decision which was to have important consequences later, Japanese language instruction began at the Royal Military College Duntroon in 1917. In the same year, the University of Sydney established a lecturership in Japanese as a result of the same initiative by the Department of Defence, and a few junior Army and RAN officers were sent to Japan to study the language and culture.[117]

Despite the professionalism shown by the IJN, by 1919 the British Government was becoming less satisfied with the consequences of the Anglo-Japanese Treaty, which it had entered into in 1902 and subsequently affirmed on three occasions. It was feared that the Japanese had steadily made inroads into British authority and influence in the Far East, and the ambivalent response to British Government protests over Japanese acquiescence to attacks on British rule in India suggested that the Japanese Government had imperial designs of its own. The vociferous opposition of the Australian Government to renewal of the treaty was another factor in British considerations, and the decision was taken to abrogate it. In its place, the Washington Naval Treaty of 1921–22 would

serve to check Japanese naval expansion. To demonstrate its determination to remain a power in Asia, the British also decided to construct a first-class naval base in Singapore.

Growing economic pressures on the British Government and dissension among the British chiefs of staff caused delays in the Singapore naval base project, while the growth in Japan's industrial and military strength continued to fuel Australian anxiety. Base construction was cancelled in 1924 by the Labour Government but revived by the incoming Conservatives later the same year, while in 1925 the argument of battleships versus air power began its long life with the exaggerated claims of the Royal Air Force (RAF) Chief, Trenchard.[118] However, Singapore was always promoted as the keystone of British defence policy in the Far East – but to an Australian Government and defence chiefs not always certain how much weight to place on these British assurances. It was not until August 1940 that the British Government advised that 'a capital ship force cannot be made available to proceed to the Far East if Japan comes into the war'.[119]

As for political intelligence on Japanese intentions, lacking its own foreign affairs department and any formal civil intelligence gathering apparatus, Australia was obliged to rely on the British Dominions Office. The situation was not much better on the military intelligence front. Although the Australian chiefs of staff were aware that reports on the Far East situation had been prepared for the Committee of Imperial Defence, Australia's liaison officer with the British Foreign Office in London was allowed to see some of these but not to have more than one copy of them. Efforts to obtain a regular supply of these papers through intercession with the Australian prime minister were unsuccessful.[120] It was also the case that reports prepared for a British committee and its expressed priorities frequently under-represented either Australian interests or the different geopolitical situation in which the Commonwealth found itself. This point was made later by Prime Minister Menzies in a speech, published subsequently in the *Sydney Morning Herald* of 27 April 1939: 'The problems of the Pacific are different. What Great Britain calls the far east is to us the near north'.

The Japanese viewed the outcome of the 1930 London Naval Disarmament Conference as inimical to their interests, and it caused outrage in Tokyo. Extremist elements among the officer corps assassinated the prime minister, and the trend in much Japanese naval thinking changed to more bellicose themes. Government acquiescence in the Imperial Army's incursion into Manchuria in September 1931 was further evidence that expansion had become official policy: a steady deterioration of the situation in the Far East continued. Japan's military action against the Chinese in Shanghai in 1932, although settled peacefully, showed the determination of the Japanese to achieve their objectives by force if necessary. In February 1933 Japan withdrew from the League of Nations and continued its expansionist policies, with an incursion into China proper. In the same year, schoolbooks had appeared in Japan showing Indochina, Thailand,

Malaya and Singapore, the Philippines and the Netherlands East Indies as Japanese-controlled territory. [121]

Japanese belligerency caused a great deal of reflection in Britain and Australia over the following years. In a secret report written after he led the Australian Economic Mission to Tokyo – among other Asian destinations – in 1934, John Latham made the following comment:

> As compared with other nations of the world it appeared to me that there was an almost pathetic desire for recognition of Japan, in the full sense, as a great nation, and for the appreciation of their national qualities, and on the other hand a very resolute determination to promote the interests of Japan in every sphere.[122]

A cable from Australia House London to the Department of External Affairs of 30 June 1935 contained the following gloomy assessment:

> From a naval point of view, 1936 is a particularly dangerous year as Japan's preparations will be far advanced, while the British Fleet will be unready in important respects, and the first stage of the defences of the essential Naval Base at Singapore will not be completed until the end of that year or early in 1937.[123]

In February 1934 the British Commander-in-Chief China, Admiral Dreyer, had convened a conference of senior naval officers, which was attended by the Australian CNS. The need for the meeting gained impetus from Japan's announcement that it intended to abrogate the Washington and London disarmament treaties when they expired that year. Dreyer was one of the few British officers who acknowledged the capacity and professional competence of the IJN. He foresaw the broad scope of the Japanese southwards offensive and believed that to displace them would require 'stupendous combined operations'.[124] The conferees discussed the strengthening of Far East defences and the development of plans to hold the Japanese in the period before the British Main Fleet arrived. The Admiralty took little action in response to the call for a major expansion of the naval, military and air forces in the area but, under Dreyer's tutelage, the senior officers recognised the essential role of air reconnaissance and air support in naval operations in the theatre.[125]

In February 1936 there was a military mutiny in Tokyo against the government's attempts to rein in military spending, and an attempt was made on the prime minister's life. In December of the same year, Japan signed the Anti-Comintern Pact with Germany. Japan's war in earnest with China broke out in July 1937. This led in turn to confrontations with the other colonial powers and to a deterioration of relations with the West. British Empire attention, however, including that of the Committee for Imperial Defence, was increasingly focused on first the Abyssinian crisis of 1937 and

the growing threat of Nazism in Europe. The Australian Government (with support from the Admiralty) looked to British appeasement of Japan to reduce the chances of a two-theatre conflict, especially as on the outbreak of war with Germany Australia had responded to British requests for military assistance in the Mediterranean theatre.[126]

Japan's determination to succeed with its 'Southwards Expansion Movement' was reflected in incidents in Australia. NID published its summary of suspected Japanese espionage in Australian waters in 1932 and updated this in 1934. The suspect activities included unauthorised landings by Japanese fishermen and pearlers, apparent efforts to carry out hydrographic and beach surveys near Newcastle, and later in the Great Barrier Reef, and cruises by Japanese warships in New Guinea waters.[127] By mid-1939 these encroachments were regarded so seriously that Cabinet endorsed patrols by Defence to counter them. From 1937 on, its newly established Trade Commission in Tokyo began to provide the Australian Government with even more evidence of Japanese intentions in Southeast Asia. Included in this were two maps, one showing the northern part of Australia as part of the southwards expansion and a second, in 1938, designating the whole of Australia as a Japanese immigration sphere.[128] In 1939 the Japanese Foreign Ministry established a South Seas Bureau specifically to progress the southward expansion policy. By 1940, Japanese pressure on the Netherlands East Indies over access to oil, and on the Portuguese over oil exploration in Timor, was revealed by intercepts of Japanese diplomatic traffic. In the latter case the Minister of External Affairs wrote to the Minister for Commerce on 10 July 1941 and declared it 'important for our security organisation to establish a footing in Portuguese Timor'. Establishment of an air service between Dili and Darwin, and of an Australian consulate there, followed shortly after.[129]

Despite Britain's vicissitudes in the European theatre, it was clear that Japan's expansionist policies would need to be met with military force. War Orders for the Australian Squadron issued in 1938 showed the enemy as Japan, and in 1940 the Australian Army conducted a staff study on how to meet a Japanese attack on the Australian mainland in the vicinity of Sydney. The appreciation concluded that Sydney could not be defended without the Australian Fleet.[130] Then, beginning in 1940, a series of meetings and conferences were held in Singapore to discuss strategy in the event of a Japanese attack. Principal players were Britain, Australia and the Netherlands East Indies, with US observers, although the neutrality of the US Government caused these planning conferences to produce few firm plans. As well, the US view was sharply at odds with the British over the critical need to defend Singapore: the Americans considered that, while the retention of Singapore was 'very desirable' and that its loss would be 'unfortunate', they believed its loss 'would not have a decisive effect on the issue of the war'.[131] The United States also ruled out the possibility of dispatch of a USN capital ship force to Singapore.

However, the inexorable advance of the Japanese gave some urgency to the discussions. The Tianjin 'Incident' in June 1939 forced Britain to concede Japanese hegemony over China, and this was followed by Japanese occupation of Hainan Island and the Spratly Islands in the South China Sea. In 1940 the Japanese negotiated the peaceful occupation of Thailand, and reached an accommodation with the Vichy regime in the northern part of French Indo-China.

In April 1941 arrangements were put in train to produce joint contingency plans, and agreements were reached concerning the coordination of Allied forces in the Far East Theatre. Commitments entered into by Australia as a result of these conferences ensured that by September 1941 the major part of the RAN's fighting strength had been mustered on the Australia Station or in adjacent commands. Both heavy cruisers and the four light cruisers were now in either the Indian or Pacific Oceans, together with the four surviving destroyers. They were supplemented with the first batch of more than 50 corvettes being constructed in Australian yards. Only four ships remained with the British, although their return too would be requested on the day after the Japanese attacks on Malaya and Pearl Harbor.[132] In November the War Cabinet agreed that, with provisos on escorting convoys to the United Kingdom, in the event of war the RAN 'other than local defence vessels' would be placed under the strategic control of the Commander-in-Chief Eastern Fleet.

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Before the outbreak of hostilities with Japan, a great deal of useful intelligence had been gained on Japanese plans and military capabilities, despite the later claim by the British Commander-in-Chief Far East, Robert Brooke-Popham, that 'We did not believe, till the end of November, that Japan might be actually on the verge of starting war'.[133] Without excusing Brooke-Popham for his failure to act decisively in the face of the clearly growing Japanese threat to his command, it should be mentioned that senior Western leaders, including Churchill, who referred to Japanese as 'extremely sensible people', expected Japanese pragmatism to come to the fore and stop the military assault, which they regarded as demonstrably against Japanese interests.[134] Nevertheless, this is an egregious example of wishful thinking overriding firm and reliable intelligence. Brooke-Popham and other senior Allied commanders, however, believed that the quality of intelligence on Japanese military capabilities they were receiving was deficient. Allegations of the failure of intelligence to project the mettle of the Japanese were made in the *London Gazette* explanation quoted above, and in a second at a later date by General Percival on the fall of Singapore. These claims are worth examination, as they materially affected the conduct of the first year of the war, and sometimes well beyond then.

The story of the attempts by Allied intelligence services to provide planners and operators with a realistic picture of the developing power of the IJN is one of considerable complexity. Both the British and the Americans (and later the Australians) devoted significant effort to observation of the IJN, and it is interesting that both of the RAN's wartime commanders, Admirals Colvin and Royle, had spent time as the British naval attaché in Tokyo during the 1920s. Both powers accorded Japan international importance by including her as a participant in the various naval disarmament conferences, commencing with the Washington Naval Treaty, although neither (apparently) detected the intensity of Japanese resentment at Japan's relegation to the 'second division' at these discussions.[135] The term 'apparently' is used advisedly: before the London Conference of 1930, the British had broken the Japanese Naval Attaches Code and were in possession of Japan's negotiating position for the disarmament talks.[136]

The USN had long felt that it would have to fight the Japanese and had prepared War Plan ORANGE for this eventuality. By the later 1920s, the Americans had established intercept stations at Shanghai, Beijing, Guam and Olongapo in the Philippines to monitor Japanese military traffic. Sigint taken on the 1930 IJN Combined Fleet manoeuvres repaid this investment, for the Japanese had exercised the capture of Guam and the Philippines and had successfully 'fought' a decisive battle with the US Pacific Fleet.[137]

Japanese war plans were broadly known in the West. The British had gained access to the IJN's strategic plan through its codebreaking activities, although this information was not shared with the United States.[138] Their 'Greater South East Asia Co-prosperity Sphere' concept for accessing the raw material resources of Southeast Asia to sustain and boost Japanese industrial production was not a secret. In 1935, one IJN officer was even allowed to publish a book titled *Japan must fight Britain*, in which the content ranged from invective about perceived slights by the British, to a considered and well-reasoned discussion of why the Admiralty's 'Main Fleet to Singapore' strategy could not succeed, and the ways in which Japan could defeat it. The book's central theme was that Britain's construction of the Singapore naval base represented a serious threat to Japanese defence, trade and expansion into Asia.[139] Thus Japanese intentions were fairly clear, as a review of Imperial defence by the Chiefs of Staff Sub-Committee prepared for the 1937 conference makes very clear in a few short words: 'Japan is aiming at hegemony in the East'. However, there was little firm information on the timing of Japanese plans.

Data on the Japanese order of battle was relatively accurate, despite IJN attempts to bar Western (including German) access to its bases and shipyards. A British naval attaché in Tokyo reported to the effect that the IJN found ways of using up most of the time allotted to visits in ceremonial or entertainment.[140] However, this did not make intelligence collection impossible. A cruise by the submarine HMS *Regulus* in October

1940 yielded photographs and other details of IJN ships in Shibushi Bay in Kyushu and Osaka Bay in Honshu. An Admiralty order of battle estimate in August 1941, when compared with the true state of the IJN, shows significant similarities.[141] However, the characteristics of the new sister battleships *Yamato* and *Mushashi* – 64,000 tons and armament of 18.1-inch guns, the largest in the world – were successfully concealed, by extraordinary security precautions.[142] But the broad detail of Japanese naval expansion plans – the Third and Fourth plans – was revealed in the Japanese Diet. By extrapolation, these gave a reasonable assessment of Japanese industrial capacity at the time. If anything, the Admiralty tended to overstate the capacity of Japanese shipyards to produce large and complex ships like battleships and aircraft carriers.[143]

However, the Allies had a major blind spot for Japanese technological advances. The IJN had become particularly air-minded, putting research and money into both carrier and land-based naval aviation, even though the IJN too had its fair share of 'battleship' admirals. The IJN had established its naval air force in 1927, and in some regards it led the world in aircraft carrier design and operating tactics. Japanese aviation design bureaus produced a number of interesting and innovative aircraft for land and carrier operations, most remarkable of which was the Type 00, known in the West as the Zero. US naval attaché reports on this aircraft, based on observation of its use by the IJN and a rare opportunity to sit in its cockpit, were disbelieved by the USN Office of Naval Intelligence (ONI) because the Zero weighed so much less and had such a high performance in comparison with contemporary American machines.[144]

Nevertheless, the Zero should have been no surprise. Several had been shot down over China in May 1941 and a full technical analysis was available to Far East staffs.[145] This apparently failed to make an impact on planners in either the United Kingdom or the United States. Reports were ignored or disbelieved, although the Australian Minister for Air told the Advisory War Council in January 1941 that: 'It is understood that a new naval air service fighter was put into production in 1940 ... The armament is said to be two 20mm cannon and two 7.7mm machine guns and the top speed 300mph'.[146] The reason given for ignoring this intelligence was that the IJN aircraft's performance was so superior to anything in the Allies' inventory that the reports must be erroneous.[147]

IJN pilots flew more hours than their RN and USN counterparts, and had achieved a high degree of proficiency in both bombing and torpedo attacks against warships. IJN carrier pilots were an elite unit, graduates of hard and intensive training courses and even harder exercise programs. In contrast to less successful Allied arrangements – RAF/RN and US Army Air Force (USAAF)/USN cooperation was continually beset with problems – IJN land-based air fleets were integrated into naval command organisations and constantly practised fleet cooperation missions. It was, for example, land-based naval air power which sank HM Ships *Prince of Wales* and *Repulse*. The British did not credit the Japanese Navy with aircraft with such a long range, so they initially declared that carrier aircraft had attacked the two ships.[148]

China was to prove a valuable training ground for the IJN in air attack on land targets, but warnings of Japanese aviation capabilities by the British all-source intelligence unit, the Far East Combined Bureau (FECB), were regarded as 'alarmist and defeatist' by senior RAF staff in Malaya and not accepted by Brooke-Popham. He told the Australian War Cabinet that he was of the opinion Japanese aircraft were 'not very efficient'. Their fighters, moreover, were considered not as good as the Brewster Buffalos then being obtained by the British, and 'our pilots were considerably superior'. Brooke-Popham thought the Malayan Air Force would cause such loss to the Japanese Air Force to prevent it from putting the British forces out of action either in Singapore or Malaya. The British chiefs of staff appreciation on the situation in the Far East in 1941 contains the following statement:

> The majority of the 450 shore-based aircraft which the Japanese can marshal against us are of obsolete types and, as we have said, we have no reason to believe that Japanese standards are even comparable with those of the Italians.[149]

Japanese ingenuity in aviation matters was not limited to ship or land-based machines. Anticipating an oceanic war, the IJN had developed seaplane tenders capable of rapidly establishing advanced bases, and large four-engined aircraft for reconnaissance and attack could be operational within hours from any island or atoll offering a degree of shelter. The 1942 bombing raids on Townsville, for example, would be conducted from just such bases.

Japanese strategists, concerned at the disparity imposed by the Washington Naval Treaty, had devised the solution of building ships that were better armed and faster than their Western equivalents. The clearest expression of this policy was in the *Yamato* class battleships but this extended to all warship classes.[150] The IJN led the world in the development of large destroyers, nearly twice as big as contemporary British and American designs. All their ships carried the Type 93 'Long Lance' oxygen-powered torpedo, which was faster, had a longer range and was more reliable than those of the Allies. The advent of this weapon had a major influence on IJN ship construction and tactics.[151] The Type 93 had been the subject of reporting in 1934, although its range and speed were not known precisely, but Allied technical intelligence staffs discounted its existence. No technical analysis was conducted because oxygen-driven torpedoes were not in the inventory of either major Allied navy and were considered too dangerous.[152] In another surface warfare development, Japanese gun and projectile technology and fire-control advances enabled the IJN to outrange its potential enemies with large-calibre gunfire.

Japanese naval architects had produced ships capable of absorbing considerable battle damage through good compartmentalisation and superior damage control, although IJN designs were seriously compromised by the need to observe Washington Naval Treaty

limits on displacement, while squeezing the maximum possible armament into each hull. Considerable effort and expense were required to rebuild ships after typhoon damage had revealed their stability and strength weaknesses before the war.[153] The IJN design bureaus had delivered a force of large, high-speed submarines with long ranges, armed with 5.5-inch guns: some of these boats carried floatplanes for attack and reconnaissance. These separate trends in Japanese submarine development were said to have been stimulated by British and French trials of large submarines. The IJN had also gained some German U-boats as reparations after WWI, and maintained an active exchange with German submarine design bureaus between the wars.[154]

IJN ships and their crews worked punishingly hard routines, with emphasis placed on fighting at night and in poor weather conditions. These exercises, sometimes occasioning collision and fatalities, were to steel the IJN for its coming war against the United States, and such costs in ships and men were acceptable to the Navy and the Japanese public.[155] Japanese proficiency in night action was to be another unpleasant surprise to the Allies, as was their preparedness to effect amphibious landings in marginal weather conditions. Here, too, they used operations on the Chinese coast to hone their skills. The relatively poor showing of the Japanese squadron during the 1932 Shanghai Incident skewed Allied appreciations of IJN amphibious competence. However, both Japanese competence and experience in landing operations and amphibious material capabilities were comprehensively reported by the Commander-in-Chief China in 1940. Titled 'Japanese Combined Operations', the report was distributed to DNI, ACNB, General Officer Commanding Malaya, Air Officer Commanding Far East, and Rear Admiral Malaya, among others. Twelve landing operations were described and analysed, as well as the characteristics and capabilities of Japanese landing craft. This very model of an intelligence analysis seems to have been heeded by few of its intended readership.[156]

Supplementing the human intelligence collection was Sigint. There remains some uncertainty on the extent to which the main IJN operational code, Code D or JN-25, had been penetrated by the British, Americans and Dutch before the Japanese attack. What can be said is that by 1940 the British and the Americans were already reading the Japanese high-level diplomatic 'Purple' code, the lower level diplomatic 'Red' code, and some IJN operational codes. Detailed information on Japanese war planning and diplomatic manoeuvring was available to the highest Allied government and military councils. For example, Admiral King sent a message to all Pacific Commands and the British on 27 November 1941 warning that negotiations between the United States and Japan were going badly and that attack by Japan was possible, and referring specifically to 'the Philippines, Thai or Kra Peninsula or possibly Borneo'.[157] There seems to have been some reluctance in senior quarters to accept what the cryptanalysts were finding in Japanese communications.

Why were the outcomes of such brilliant intelligence coups frequently dismissed as being 'unrealistic' by sceptical leaders and their staffs? One reason is that information collected by the British and the Americans was rarely shared wholeheartedly to boost a common understanding of a mutual potential enemy. Sigint information was inappropriately distributed within the USN and not passed to the US Army, and Western conventional wisdom about the IJN was dangerously faulty. Despite the efforts of RN Admirals Dreyer and Layton, both Commanders-in-Chief China, neither the British nor the Americans held the Japanese capacity for war fighting in high regard.[158] IJN staffwork was considered poor, and its officers were believed unable to readily conceive new plans if the originals went wrong – in the event, a reasonably accurate observation, although unproven at the time. The following comment appeared in the Admiralty's Confidential Book (CB) 1752, *Japan (with possessions) Intelligence Report* dated December 1936:

> Their facility in cooperation is also remarkable, as opposed to the strong individualism of the Anglo-Saxon. They possess an infinite capacity for taking pains, great powers of organisation down to the most minute detail, and a very definite gift of careful planning. Intensely suspicious and naturally secretive, they are able to put their plans into action at the chosen moment with suddenness, speed and efficiency, but, with all their qualities, they have a definite lack of imagination.[159]

However, quite derogatory racial bias also found its way into official assessments. A 1935 paper by Captain Vivian, RN, British Naval Attaché Tokyo, singled out perceived Japanese racial weaknesses, including, 'it requires time to readjust the mental outlook from one subject to another with rapidity'.[160] Neither of the Allies was able to conceive of a Japanese Navy capable of testing, let alone besting, their own fleets, while the alleged shortness of stature of the Japanese race and its presumed myopia, among other racial traits, furnished the Westerners with clear reasons why the Japanese could not fight on an equal footing with whites:

> How could officers brought up on Drake, Blake, Hawke, Howe, St.Vincent and Nelson believe that little chaps in the Far East who ate rice could ever hope to be a match at sea for honest, beef-eating Englishmen who had had salt water running through their veins for the past 400 years?[161]

Overall, Allied unpreparedness to fight the Japanese was a case of 'situating the appreciation', as there is ample evidence that most of the facts of Japanese warfighting and technological capabilities were available in some form to Allied commanders. Most seem to have been unmoved by it, apparently preferring not to contemplate the outcomes if alarming accounts of Japanese technological superiority and tactical readiness might be true.[162] The intelligence jigsaw on the Japanese armed forces was not complete, but

there was sufficient detail for more than a passing idea of the design to be discerned. This lack of acceptance of Japanese capabilities was to have its consequences in the first year of Allied operations, as the examples to follow amply demonstrate.

Following an intensive study of the intelligence dimensions of the failure of the British high command in the Far East to fully appreciate the danger posed by Japan, the historian of British intelligence in the Far East, Antony Best, suggested that there were faults on the part of both intelligence and operational staffs that contributed to the debacle. He summed up his conclusion with the statement, 'FECB did not speak with a clear enough voice to an audience that was already profoundly deaf'. The author accepts Best's more conciliatory stance on the problems that beset both the intelligence organisations and the high command, but remains convinced that sufficient intelligence was available on Japanese intentions and capabilities to have created a reasonably accurate picture of what the British faced, had there been an objective attempt to do so. The intelligence, good as it was, was not sufficiently compelling to change attitudes towards the Japanese, which had become ingrained in British thinking and planning. One historian concluded that British strategists were compelled to adopt the view that Japanese military power was 'second rate' because they had no means of dealing with a first-rate power in the Far East. Once that point had been reached only intelligence which could support that view was acceptable.

## The Collapse of the Malay Barrier and The Battle of Sunda Strait, February 1942

The abortive Allied attempts to stem the Japanese advance into the Netherlands East Indies are not well recorded. The sole substantial account was compiled by the Dutch, over and around whose territory most of the battles were fought, and who made the strongest and most consistent military contribution to its defence.[163] A short description of the origins, brief existence and final collapse of the American-British-Dutch-Australian (ABDA) command, and the fate of its forces, is therefore in order. Reference to Map 3, which shows the territory claimed by the respective powers in late 1941, will indicate the geographical difficulties the Allies faced.

Apprehensions that the Japanese might take advantage of the war in Europe to launch an attack to secure their sources of strategic materials, including oil, promoted informal staff discussions among the colonial powers in Southeast Asia. Australia was admitted to these talks because of its prime interest in the outcome for its own security and its willingness to contribute forces. The Singapore Conference of 1940 reached tacit agreement on the likely direction of a Japanese thrust and identified deficiencies in Allied preparedness: the Australian delegation to this conference was seriously disturbed at the state of defences at Singapore.[164]

Map 3 - Southeast Asia, Late-1941

Participants agreed the need to coordinate plans for the defence of colonial territories and the exchange of staff and information. In November 1940 the Western powers, correctly, expected the Japanese to attack Borneo, which the Dutch proposed to defend with air power from a series of prepared airstrips that were subsequently captured largely intact by the Japanese and used against the Allies. They also became aware that the Dutch were totally dependent upon the United States and Britain for the supply of munitions 'not only for the replacement of consumption but also for making good present shortages'.[165] The Dutch Government had been forced into exile in the United Kingdom in May 1940 when the Germans overran the Netherlands, which cut the Netherlands East Indies off from the assistance of its home government and armed forces. In view of the importance of communications between their forces, their representatives were reassured by the news that an inter-Allied naval code was being prepared. However, when the fighting came these books were never used: the question remains why this was so. A contemporary explanation was that they were compromised by an NEI sailor who defected to Germany via Japan, but the author has not been able to substantiate this claim.

By 1941, the threat from Japan loomed even larger, with Vichy acquiescence to Japanese expansion into Indo-China. The British plan to substantially augment its China Fleet – the 'Main Fleet to Singapore' strategy – to deter Japanese aggression had been quietly shelved by the Admiralty because of pressures on naval resources in home waters, the neutralisation of the French Fleet and war with Italy in the Mediterranean, although the full implications of this had not yet been revealed to its Dominions and allies.[166] At the 1941 Singapore Conference, Brooke-Popham tiptoed around this problem by stressing, in the words of Admiral Colvin, who led the Australian delegation:

> …that the reinforcement of Malaya by land and air forces since October [1940] had so materially strengthened their position that he was most optimistic as to the ability of Singapore to hold out and to continue to operate as a fleet base.[167]

At a second Singapore conference in April 1941, firmer plans for cooperation were put in place, although the position of the United States still remained uncertain. This cooperative effort required a dedicated staff and the development of 'Plans for the Employment of Naval and Air Forces of the Associated Powers' (PLENAPS). In accordance with these plans, which applied only to the British and Dutch forces, individual national authorities controlling 'spheres' were responsible for seeking assistance from their neighbours. Detailed deployment of those forces in the face of the increasing Japanese threat was to have been discussed in Singapore on 8 December 1941, following Admiral Phillips' return from talks in Manila with Admiral Hart.[168]

The strategy tentatively agreed upon was that an Allied command, ABDACOM, should be formed at the onset of Japanese attacks on the territory of any partner, and that the military resources of all partners would be used to check the Japanese thrust. For maritime forces, this meant the assembly of a 'striking fleet' to seek out and attack Japanese forces attempting to make a lodgment on Allied territory.[169] The force potentially created by this agreement, while not a match for the full might of the IJN's Combined Fleet, would nevertheless be quite powerful. For example, the NEI naval contribution to the striking force was to be one cruiser and two submarines, placed under the command of the Commander-in-Chief China.[170] Its reinforcement with the expected British battleships and aircraft carriers, plus those that the USN may make available, would create a fleet strong enough to give the IJN pause. Australia would contribute ships, soldiers and aircraft: HMA Ships *Hobart, Perth, Vampire, Vendetta, Yarra, Swan* and *Warrego* and four corvettes were eventually assigned by the ACNB to ABDA.[171]

The Striking Fleet would be supported by modest but respectable Dutch air attack and reconnaissance capabilities, and by General MacArthur's B-17 force from bases in the Philippines.[172] The combined submarine strengths of the three Allies of around 40 boats could pose a considerable threat to Japanese convoys moving into the region from northern bases. In reality, when the attack came, it would be the NEI submarine force that had almost the only successes against the Japanese convoys.[173] The British would provide the ABDA commander and the Americans the Naval Force commander. ABDA headquarters would be in Bandung in Java.

From an intelligence viewpoint, even this tentative arrangement produced results. It pooled the knowledge each of the three major partners had accumulated on Japanese codes and ciphers, which seems to have been considerable. FECB was the key coordinating intelligence agency, and it is apparent that particularly close relations were maintained with the Dutch Sigint unit, Kamer 14, in Bandung. The Americans were surprised that the Dutch had penetrated 'the five-digit Japanese fleet system', meaning JN-25. *Kamer 14* was also intercepting messages in the 'purple' high-grade diplomatic cypher and passing the intercepts to FECB for decryption.[174]

Liaison officers were posted to appropriate staffs. DNI Long gained the services of a naval liaison officer Batavia, Lieutenant Commander Kennedy, RAN, on the staff of RN Vice Admiral Helfrich, the commander of the Dutch naval forces in the Netherlands East Indies. Included in the exchange of information were RAN routing instructions for merchant ships, the Australian COIC weekly summaries, Australian classified charts and the weekly ASIRs. In return, the Dutch provided weekly aircraft dispositions, details of NEI radio facilities and other operational details.[175] British, Dutch and Australian naval staffs were now informed on respective appreciations of enemy activity and the evidence supporting them.[176]

There was, however, a shortage of information from the USN in the initial stages of the arrangements. Kennedy referred to Helfrich's uncertainty over where US units were, and noted that the US South West Pacific Intelligence Bulletin was provided only for the eyes of Helfrich, probably because some of its content was based on ULTRA intercepts. The Americans, of course, were not in the war at this time, but they were exchanging Sigint with FECB.[177]

The Allies' ability to counter or frustrate Japanese intentions was a different matter. Gill succinctly describes the readiness of ABDA naval forces:

> The British-American-Dutch naval forces were widely dispersed, lacked unified command, and used different codes of signals and communications (with the additional handicap of the language difficulty as between English and Dutch speaking), had no joint tactical training, operated from widely separated and, in most instances, highly vulnerable bases, and were numerically weakest in the area where strength was most needed – the Western Pacific.[178]

These deficiencies were bad enough, but the Allies' sense of racial and professional superiority, as well as a conviction that Western technology must be superior to that of the Japanese, led them to severely underrate the capabilities of their enemy.

The ABDA concept was executed by the Combined Chiefs of Staff (CCS) at the Arcadia Conference held in Washington between 24 December 1941 and 14 January 1942: Australia was not represented and had no role in the deliberations. General Wavell (Commander-in-Chief India) was named ABDACOM and established his headquarters near Bandung on 15 January 1942. Air and land commanders, ABDAIR and ABDAMIL, were also appointed, and the naval forces were commanded by Admiral Hart, USN (Commander-in-Chief Asiatic Fleet) as ABDAFLOAT, with Rear Admiral Palliser, RN, as his chief of staff. There were three national naval component commanders, Rear Admiral Glassford, USN, Vice Admiral Helfrich, RNIN, and Commodore Collins, RAN, for the British and Australians. Collins had been serving as Assistant CNS to Commander-in-Chief China and, when the China Command was dissolved on 16 January 1942, he became Commodore Patrol Forces. On 20 January his title was changed to Commodore Commanding China Force.[179]

Wavell's directive ordered him to 'gain general air superiority at the earliest moment, through employment of concentrated air power', although this had already been lost to the Japanese, and 'to hold the Malay Barrier…and to operate sea, land and air forces in as great depth as possible forward of Barrier'. The CCS assigned responsibility for the Philippines and Burma to Wavell as well: he could do nothing to succour either with the forces at his disposal.[180]

The command arrangements for ABDA are shown at Figure 3.[181] These looked good on paper but were very weak in actuality. The British and Dutch naval headquarters were

in Jakarta in West Java, while the American Naval HQ was at Surabaya in East Java. There was no central war room for ABDACOM and, in practice, little cooperation, each nation deploying its available forces in its own national interests. The USN, for example, decided that it would direct the operations of the Asiatic Fleet from Washington, while the British preoccupation was the escort of transports in and out of Singapore. Collins later remarked that 'The command got more elaborate as the strength of the fighting forces diminished'.[182] In a series of formal reports to the ACNB on the ABDA command situation, Commander Kennedy's reporting through January and February 1942 reflected the confusion and in-fighting within ABDA, especially regarding the USN's refusal to put its forces fully at ABDA's disposal.[183]
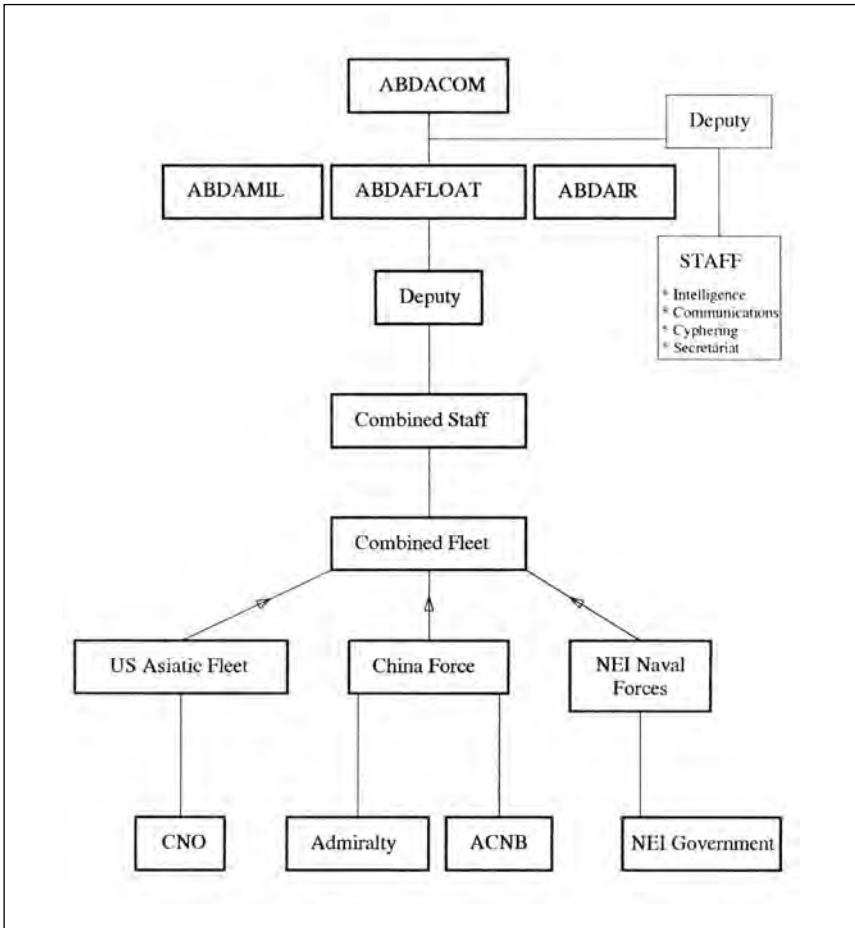
Figure 3 - ABDA Command Arrangements

In accordance with British practice, all ABDA aircraft, whatever their service, came under ABDAIR headquarters. The effect was to sever the chain of command between USN and Dutch naval commanders and their naval air resources, and leave air support for the Striking Fleet in the hands of ABDAIR commanders, successively a USAAF general and an RAF air chief marshal. Helfrich bitterly resented this dislocation of the NEI command and control system, but the 'RecGroup' set up to coordinate the activities of maritime patrol aircraft was at least well supplied with officers of the NEI Naval Air Arm, *Militaire Luchtvaart Dienst* (MLD), one of whom served as its chief-of-staff, and of the USN's Asiatic Fleet Patrol Wing. Despite this, when air reconnaissance was requested by the Striking Fleet it was rarely provided. Communications arrangements were another obstacle. Reports from MLD aircraft were sent via the naval radio station in Jakarta to NEI Naval HQ in that city, and then to RecGroup in Bandung. Here they were collated and retransmitted. Ad hoc arrangements to have the reports read directly by RecGroup were not successful. Dutch patrol aircraft also broadcast their enemy contact reports on a fixed frequency monitored by naval radio stations for rapid retransmission to the fleet, but the efficacy of this system is unknown and, in any case, the system deteriorated as Japanese attrition resulted in fewer reconnaissance aircraft.

ABDACOM headquarters had its own intelligence section with a dedicated staff under a USN captain. Its resources were impressive: there were elements of FECB to provide the core workforce, and the Combined Operational Intelligence Centre was established in the Bandung Technical College, where the RecGroup, ABDAIR and *Kamer 14* were also housed. The intelligence support provided to ABDACOM and assigned forces appears reasonable.[184] The Allies had a realistic appreciation of the balance of forces and experienced little confusion over Japanese aims and objectives. Archival records of ABDA intelligence reports and appreciations exhibit a high degree of correlation with actual Japanese dispositions and intentions. Air reconnaissance, at least in the first few weeks, was adequate, and Allied submarines initially could report on and intercept Japanese fleet movements. A constant flow of Sigint, assisted by the staff of the USN Station CAST evacuated from the Philippines, provided advance notice of Japanese moves. However, the Dutch had not been able to set up an effective coastwatcher organisation along the lines of that developed by the Australians in New Guinea and the Pacific Islands, which left a sorely felt gap in intelligence coverage.[185]

The ABDA Naval Striking Force was formed on 2 February 1942. The official histories and more personal accounts of the series of battles that followed during that month are replete with confusion, high-speed dashes after Japanese groups that were rarely engaged, continual air attacks, tiredness and misunderstandings against a background of sinking ships and dying sailors. While the scarcity of Allied resources and the scale and breadth of the Japanese assault on the Netherlands East Indies were daunting problems for any staff, ABDA failed to halt or even significantly delay the Japanese, because the partners did not stick to the agreed strategy of concentrating Allied naval forces to contest Japanese landings. Instead, both the RN and USN diverted valuable

and powerful ships to the task of convoy escort, denying local operational commanders the chance to oppose the Japanese with any reasonable forces. Ironically, it was the Americans who had strongly urged the concentration strategy in staff talks in April 1941. After the Japanese attacked the Philippines, however, they declined to assign the Asiatic Fleet to ABDACOM and selected for themselves an operating area east of Java.[186]

However, there were just too few forces to deploy across a battleground a thousand miles wide against an enemy advancing in four major columns, and the strain of defeat soon affected the relationships between the Allies. By 12 February Wavell was delegating his responsibilities to Admiral Helfrich, while Admiral Hart asked to be relieved as ABDAFLOAT, which occurred on 16 February, with Helfrich succeeding Hart. After the failure of the Striking Force under Dutch Rear Admiral Doorman to intercept the Japanese convoy intending to land at Palembang in Sumatra on 15 February, Wavell told Churchill that the Netherlands East Indies was lost, and the following day the British Defence Committee terminated all reinforcements for Java. On 19 February the Japanese landed in Bali, brushing aside a joint Dutch-USN striking force, again under Doorman, and on 21 February Helfrich appealed to Wavell for additional naval forces to defend Java. The request was declined on the grounds of air inferiority. Two days later Wavell advised Churchill that 'the defence of ABDA has broken down and Java cannot last long'. On 23 February ABDACOM was dissolved, leaving the Dutch to carry on with the forces then available. The United States and Britain had made commitments to joint action with the Dutch that were now worthless.

The scene was now set for the final two naval battles of this sorry campaign. Although its command structure was in chaos, ABDA's intelligence services were still providing a clear picture of Japanese intentions. The IJN had formed two attack groups for their assault on Java. The western group of some 41 transports, with powerful naval covering forces, was advancing southwards towards the western extremity of Java at Sunda Strait. Aircraft confirmed its existence, composition and direction on 26 February. The eastern force left Balikpapan in Borneo bound for the north coast of Java near Surabaya. It was not sighted until north of Surabaya on 27 February.

Helfrich's problem was marshalling sufficient force to effectively oppose these Japanese amphibious thrusts, as both ships and aircraft were in short supply. He had formed his available assets into the Eastern and Western striking forces, with Collins commanding the Western force, mainly comprising obsolete ships, and Doorman commanding the more modern ships of the Eastern force. To meet what was correctly deemed the most imminent Japanese threat – he was particularly anxious that the convoy be destroyed – Helfrich rushed available reinforcements in the form of one heavy and one light cruiser and two destroyers from Tanjong Priok, the port of Jakarta, to join Doorman's force at Surabaya on 26 February. Sailing to intercept the Japanese but lacking air reconnaissance, Doorman was at first unable to locate the enemy, and then in a fierce fight into the night hours, his force was severely mauled by the convoy's close escort.

The last two Dutch cruisers, and Doorman himself, were lost in this, the Battle of the Java Sea. The ABDA force had communications difficulties, had never exercised together, and had no aircraft to spot its fire as the Japanese did. MLD aircraft were controlled by ABDAIR, while the Japanese ships retained direct control of their organic air assets and used them in accordance with tactical doctrine to observe enemy movements and to call fall of shot.[187] Most of the damage to the Allied ships was done by Long Lance torpedoes, which their intelligence had been silent about. When Doorman's flagship was torpedoed and sunk, Captain Hector Waller, RAN, in HMAS *Perth* abruptly found himself senior officer present, and took his ship and the heavy cruiser USS *Houston* back to Tanjong Priok.

While Doorman's last battle raged, Helfrich remained concerned at the lack of recent information on the movements of the Japanese Western Attack Group, and sent the remaining British and Australian cruisers of the Western Striking Force scouting north of Sunda Strait with orders to retire through the strait if nothing had been sighted by midnight on 27 February.[188] The cruiser force did not make contact with the Japanese, and it was therefore assumed in Bandung and Jakarta that the strait was clear of the enemy for the moment. Helfrich then ordered all his remaining forces to regroup at the port of Cilicap on the south coast of Java. A Dutch reconnaissance aircraft ordered to search to the northwest of Java on the afternoon of 28 February also reported no sighting of the enemy convoy, and this information was provided to Captain Waller, who departed Tanjong Priok with the damaged *Houston* in company later the same evening.[189]

Shortly after 2300 on 28 February, off the very western tip of Java, *Perth* and *Houston* encountered the Japanese Western Attack Force preparing to land at dawn: Admiral Helfrich had finally succeeded in bringing Allied naval force to bear on a Japanese landing convoy. The two cruisers inflicted moderate damage on some of the enemy warships and transports, but both were overwhelmed with heavy loss of life.[190] The facts of their sinking did not become known until after the war, when survivors were discovered among prisoners of war. The track chart at Map 4 from Gill, *Royal Australian Navy 1939–1942*, illustrates the unequal nature of the fight into which the two Allied cruisers had unwittingly steamed.

Before his final action in a highly distinguished career, what did Captain Waller and his command team have by way of intelligence? ABDAFLOAT and *Perth* knew there was a large Japanese attack force in the vicinity of Sunda Strait, and had a reasonable picture of its size and composition from Sigint and aerial reconnaissance.[191] The 'negative contact report' from the reconnaissance aircraft at 1500 gave an assurance that there were no Japanese surface forces in the immediate vicinity of the strait.[192] *Perth* had gained very recent first-hand intelligence on the fighting capabilities and tactics of the Japanese. Waller could assume that his presence in Tanjong Priok had been observed and reported by the Japanese Fifth Column reputed to be operating

there. He knew that the ammunition states of both *Perth* and *Houston* were low, that the ships had been unable to fuel to capacity, and that *Houston's* after 8-inch turret was out of action.[193] All were keenly aware of the approaching exhaustion of the ships' companies after the best part of a week at either a high degree of readiness or in battle. The senior surviving officer from *Houston* commented: 'In contrast with the high state of morale, the physical condition of both officers and men was poor and in some cases treatment for exhaustion was necessary'.[194]
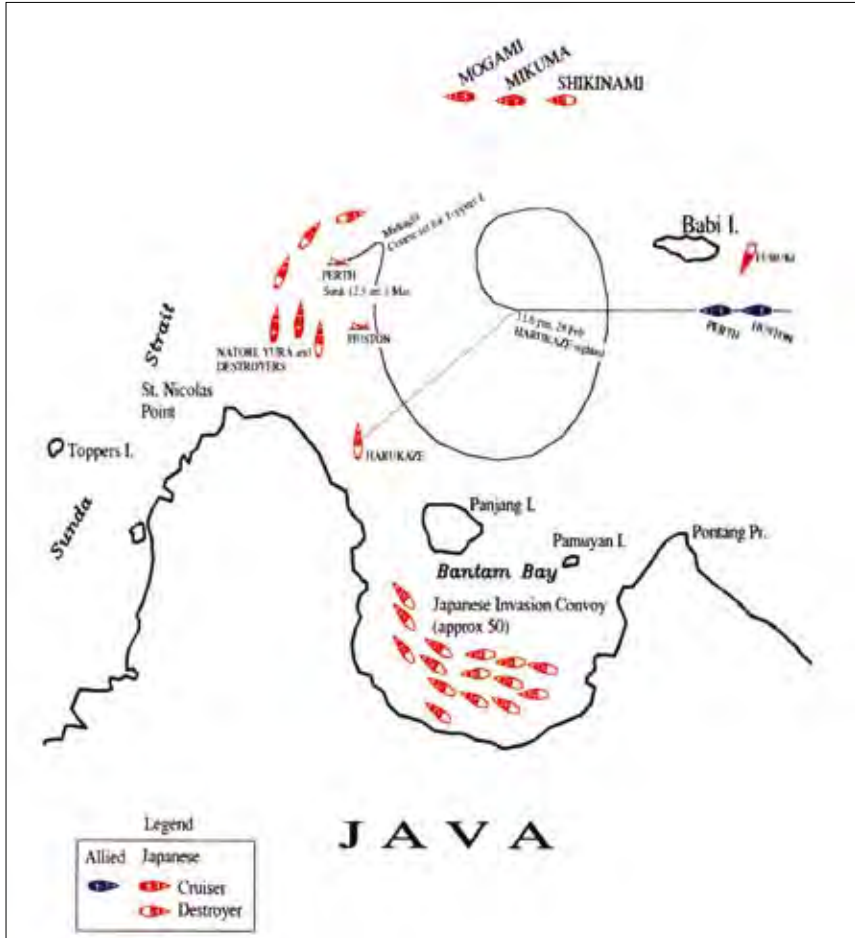


Map 4 - Battle of Sunda Strait, February 1942

Waller's team appreciated that the Japanese had air, surface and submarine superiority to the north of Java, and possibly to the south of the island as well. They also knew there were no Allied forces of any consequence to come to their assistance if the enemy was encountered, and certainly not from the air. By 26 February ABDA air forces had been reduced to 25 fighters and three bombers. The only Allied ships Waller expected to encounter were the Australian minesweepers of the 21st Minesweeping Flotilla patrolling Sunda Strait. Detection of a Japanese force would be through lookouts, as neither *Perth* nor *Houston* had serviceable aircraft to launch, nor radar.[195]

Although he was well supplied with the latest Allied information, Waller's situation could probably not have been averted by better intelligence. The Japanese had almost total command of the air over the Java Sea, with considerable naval forces operating at both ends of Java. His small force was trying to escape, and his best chance was to slip through the neck of the bottle at Sunda Strait before it was blocked by the Western Assault Group. Unfortunately, the information provided was incorrect: the IJN had already closed that escape route. Small Allied naval forces leaving Tanjong Priok after *Perth* and *Houston* were intercepted and sunk on 1 March. Cilicap was a temporary haven that had to be abandoned only two days later. Several convoys fleeing towards Australia were attacked and destroyed by a Japanese heavy cruiser force operating in the Indian Ocean.[196]

In retrospect it can be said that senior Allied commanders ignored intelligence in continuing to send forces to prop up the collapsing situation in the Netherlands East Indies. After Wavell had advised on 21 February that the situation was lost, there was little to be gained by sending more ships to engage in futile battles against overwhelming Japanese forces, except pride. Perhaps the British were consumed by a sense of guilt over their failure to concentrate forces in accordance with PLENAPS earlier in the campaign, when there had been a fighting chance of blunting the Japanese advance. Helfrich was prepared to fight to the last, but one wonders why his Allies felt it necessary to commit scarce and experienced ships to a cause clearly lost.[197] The lack of these ships and their companies was to be keenly felt in the bitter months to come.

Regardless of much gallantry and sacrifice, the ABDA experiment failed, despite intelligence on the Japanese threat and not because of any lack of it. The jigsaw was virtually complete. The intelligence lesson to be learned from the short and futile history of ABDACOM is that, no matter how good the intelligence provided, strategic and operational commanders can only act effectively if they are able to assemble the necessary forces to exploit it. The operational lesson is that 'coalition warfare', as it is now termed, requires considerable planning and training based on commonly held principles for fighting and winning a conflict. This was a problem the Americans and the Australians now faced as they retreated from the Malay Barrier to regroup on the Australian mainland.

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As 1942 dawned Australians confronted for the first time in their history the very real prospect of direct attack by a foreign power. In facing up to this threat, the Australian Government and its armed forces were also confronted by a second issue – that of fighting alongside a coalition partner other than the United Kingdom. This was without precedent in the experience of all officers of the RAN (and the other services) and held out the spectre of a clash of military cultures, traditions, procedures, tactics, command relationships and reporting responsibilities, not to mention differences in combat experience and the military hardware used by the Allies.

Furthermore, despite its strenuous insistence on being party to decisions that affected the security of Australia and the employment of her armed forces, the Australian Government had been singularly unsuccessful in gaining an effective voice in the war councils of the Allies.[198] To the British, Australian concerns were of lesser significance than the survival of the British Isles and the forging of an effective alliance with the United States. Churchill did not necessarily see Australia's plight as irrelevant, but it was certainly peripheral to the worldview that he fostered with President Roosevelt – the first Allied priority was to defeat Germany. Indeed he had no option but to leave the Pacific War in the hands of the Americans

Australia, however, began to loom larger in US strategic plans.[199] With the loss of the Philippines, Malaya and Netherlands East Indies, Australia would provide the only reasonable springboard from which to mount a counter-attack, at least in the initial stages of the campaign. There were far-reaching strategic implications in this for the US armed forces that would become apparent as the Japanese resumed their offensive after April 1942, but the South West Pacific Area (SWPA), as it was later designated, was seen to be primarily a responsibility for the US Army and its air force.[200] The President ordered General Douglas MacArthur to leave the Philippines in March 1942 and to take command of Allied forces based in Australia.

MacArthur was not sent to defend Australia: his task was to make Australia a base from which to strike back at the Japanese in keeping with the 'Beat Hitler First' strategy. He made this clear to Prime Minister John Curtin in Melbourne on 1 June 1942. In a little-quoted section of the minutes of this meeting is the statement:

> The Commander-in-Chief added that, though the American people were animated by a warm friendship for Australia, their purpose in building up forces in the Commonwealth was not so much from an interest in Australia but from its utility as a base from which to hit Japan. In view of the strategical importance of Australia in a war with Japan, this course of military action would probably be followed irrespective of the American relationship to the people who might be occupying Australia.[201]

MacArthur's assumption of supreme commander responsibilities for the SWPA completely changed the command arrangements for the Australian services. On 18 April 1942 all Australian naval units came under the command of Commander Allied Naval Forces (CANF), initially Vice Admiral Leary, USN, headquartered first in Melbourne, then Brisbane. Figure 4, taken from Stevens *Royal Australian Navy*, describes the command arrangements in the South West Pacific as they applied to the RAN.
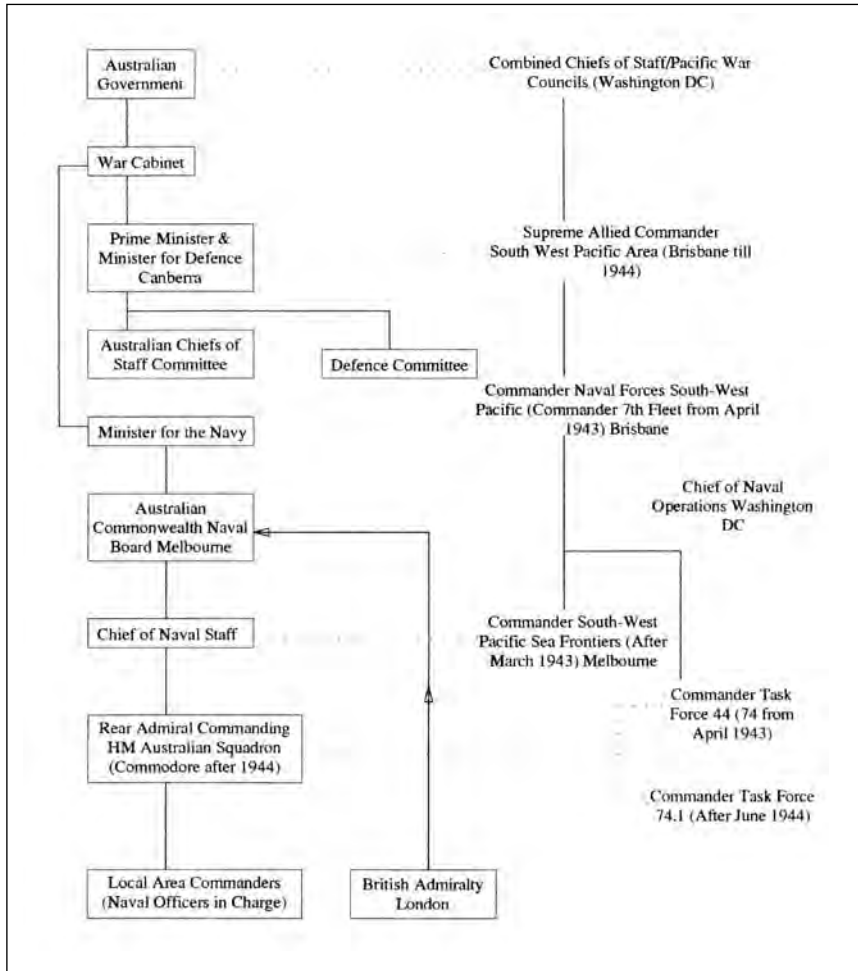


Figure 4 - Allied Command Structure in the Pacific, April 1942

While there remained residual responsibilities for the Australia Station, CNS exercised no operational command of RAN units. But Leary had few other assets, except for two submarine flotillas, one in Brisbane, the other in Fremantle. Although under his nominal command, their operations were actually directed by the US Commander-in-Chief Pacific (CINCPAC) in Hawaii. This was not the only difficulty faced by CANF, and some of the key issues should be alluded to as they greatly influenced the operations of his forces in the first 18 months of the war against Japan.

Following the Battle of the Coral Sea in May 1942, Leary had some of his major units transferred to Commander South Pacific Command for operations in the Solomons, where several were sunk or severely damaged. He was keen to husband his remaining scarce resources and reluctant to apply them to the task of assisting army operations on the northeast coast of New Guinea, where they would be obliged to operate in uncharted waters dominated by Japanese air power. This attitude was endorsed by his replacement, Vice Admiral Carpender, USN, who took command on 11 September 1942, but it was seen by the army elements of MacArthur's headquarters as showing timidity. The Army also dismissed Carpender's real concerns about the poor state of hydrographic information with reference to successful operations in those waters by Australian corvettes.[202]

The views and practices of General MacArthur extended inevitably into the realm of intelligence. Within a short period, his staff reorganised all intelligence within SWPA, and Australia became the headquarters of a wide-ranging and disparate array of intelligence agencies. These are covered in detail in Appendix 1, but four developments need to be highlighted at this juncture. As part of his headquarters, MacArthur established the Central Bureau (CB), which was responsible for the correlation of all SWPA intelligence and the operation of the command's Sigint organisation. Second, the COIC was retained, but moved to Brisbane from Melbourne when MacArthur shifted headquarters in July 1942. This separated the Australian service headquarters from their first-hand intelligence sources, to which their response was to establish a 'pocket' COIC in Melbourne. The RAN Coastwatching Service became part of the Allied Intelligence Bureau (AIB), still under RAN control but subordinated to General Headquarters (GHQ) SWPA.[203]

Finally, the working relationship established between Commander Nave's Special Intelligence Bureau and remnants of the Corregidor-based USN Station CAST Sigint organisation became Fleet Radio Unit Melbourne (FRUMEL), which came under USN command in October 1942, and did not move to Brisbane with the rest of GHQ SWPA. Thus was created a divergence in the intelligence support of SWPA naval units, although the establishment of an intelligence staff in the headquarters of CANF, which became 7th Fleet, later ameliorated this problem. There, intelligence from USN sources, including FRUMEL, could be collated and analysed with that from Central Bureau.

FRUMEL product was apparently passed directly to CNS in Melbourne and he also received Sigint from GHQ and from CINCPAC.[204]

The altered intelligence arrangements introduced Australians to a new dimension of resources and methods. Australian methods were manual, and trained intelligence manpower was in short supply in all services. The Americans respected Australian technical skills and capabilities, and appreciated that many of these had been gained in war: they made maximum use of Australians in the new organisations. But there were not enough to go around, and Australia had little capacity to undertake the huge task confronting bodies like the Allied Translation and Interpreter Section of GHQ: a shortage of Japanese language skills was the major limiting factor. While this was true also of the Americans, the relative numbers they were able to apply to the task dwarfed the total Japanese linguist resources of Australia. Trailing a few months behind the manpower came the machinery that would revolutionise the code breaking and cryptanalysis tasks.

Operationally, in the wake of the Allied defeat in the Malay Barrier campaigns, the RAN added two other responsibilities to its former defence of trade role. The first was to defend the Australian coast against IJN attack, while the second was to defend the sea lines of communication linking Australia and the battlefront in New Guinea and its outlying islands. The RAN had been hard pressed in fulfilling the original oceanic convoy and trade protection role, and was to struggle with the two new responsibilities, as will be illustrated in the following sections.

## The Battle of the Coral Sea, May 1942

The CCS in Washington had already decided in the Arcadia talks that the Pacific was to be an American responsibility. This was accepted by the US chiefs of staff, who could not, however, agree on a strategy for halting the Japanese advance and carrying the fight to the enemy. Although the problem of dislodging the Japanese from their mandated and captured island territories was clearly maritime in scope, the US Army believed that it too should have a role to play, although its interest in SWPA was a variable quantity.[205]

In the short term, a decision was made to divide the theatre into 'areas'. The oceanic parts were assigned to the Pacific Ocean Area (POA), which was the bailiwick of the USN and its aggressive Chief of Naval Operations, Admiral King. Admiral Nimitz, USN, the Commander-in-Chief Pacific, was headquartered in Hawaii.[206] The SWPA was the other, covering Papua, New Guinea, the eastern part of the Netherlands East Indies, and the Philippines. Both were joint commands – naval, air and ground force resources were supplied to each according to the respective needs – but as Nimitz reported to Admiral King, and MacArthur to General Marshall, the naval priorities

went to the former. Even MacArthur had to fight hard to have US Army and USAAF resources assigned to his command.

When Nimitz succeeded to the Pacific Command in the wake of Pearl Harbor, he and his staff were strongly inclined to keep the fleet's strike forces – its carriers – as a mobile shield between Hawaii and the Japanese. Admiral King would have none of this, and directed offensive action. When Rear Admiral Crace paid a visit to USS *Chicago*, part of his ANZAC Force, on 13 February 1942, he was given a copy of a message from King to Vice Admiral Leary telling him to 'hoist his flag and proceed to aggressive measures in New Britain and the Solomons'.

On the Japanese side, their war strategy saw the conquest of the Philippines, Malaya and NEI as its First Operational Stage, which had been forecast to take five months. The Second Operational Stage, with not so well developed plans attached, involved establishing a new defensive perimeter for the East Asia Co-Prosperity Sphere. This would stretch from Port Moresby, through New Caledonia, Tulagi in the Solomons, Fiji and Samoa, and then to Midway and the Aleutians.[207] From Port Moresby, Japanese air power would deny the Allies the use of the north of the Australian continent as a springboard for a counterattack. Japanese bases in the southern island groups would control the intervening seas and interdict communications between the United States and Australia.[208] Possession of Midway would bring Hawaii under Japanese attack and compel the US Pacific Fleet to keep its day of destiny in the 'decisive battle' sought by IJN strategists.

Japanese Imperial Headquarters initiated Stage Two for the IJN on 23 January 1942 as Naval Directive 47. In fact, the Japanese were in considerable difficulty when confronting the reality of defending an empire covering some 200,000 square miles. This problem seems not to have been thought through in the hothouse atmosphere that led to the first-stage attacks, and the Japanese belief appears to have been that they could negotiate an end to the war by waging a defensive campaign inside their newly expanded imperial perimeter to sap the will of the Allies. Nevertheless, the IJN developed the means to accomplish most of these objectives in two operational plans. Operation AF covered Midway and the Aleutians, while MO covered Port Moresby, Tulagi and the occupation of Ocean Island and Nauru. As Operation AF was scheduled for early June 1942, Operation MO was planned to take place in early May to allow time for the forces involved to rejoin the Combined Fleet for the anticipated 'decisive battle' off Midway.

Nimitz in Hawaii was being advised by his cryptanalysts of indications of plans for attacks in both regions, JN-25B having been penetrated in December 1941. This gave the Allies time to prepare and assemble forces to deal with the threat. While the counter to Operation MO would be principally naval in character, the battle was expected be fought in the sea areas of SWPA. Nimitz would, under CCS directive, control the naval forces but these would need to be supported by MacArthur's land-based air resources.

Furthermore, SWPA was stripped of ANZAC Force – Task Force (TF) 44 from 28 April – commanded by RACAS, Rear Admiral Crace, RN, and comprising the RAN cruisers *Australia* and *Hobart*, the USN cruiser *Chicago* and two USN destroyers. Nimitz also had the services of several old S class submarines of the USN's Brisbane squadron from CANF. Overall command of the Allied forces (TF 17) was given to Rear Admiral Frank Fletcher, USN, flying his flag in the aircraft carrier USS *Yorktown*, with orders to 'destroy enemy ships, shipping and aircraft at favorable opportunities in order to assist in further checking advance by the enemy in the New Guinea–Solomons Area'.[209] TF 44 was re-designated TG 17.3 and given the title 'Support Group'.

The Allies knew a considerable amount about Operation MO and the IJN forces: CINCPAC's Intelligence Officer, Commander Layton, produced a daily bulletin of intelligence data, the CINCPAC Intelligence Bulletin, which was widely distributed, including to ACNB. The first sign of Japanese designs on Port Moresby was a series of air raids launched from Rabaul in February.[210] Clear indications of Japanese interest in the regions to the south of Rabaul were detected in upper-air observations sent in the weather code. At the same time, USN and RAN cryptanalysts were having moderate success in their attack on the JN-25 main naval code, recovering between 40 per cent and 60 per cent of messages by late March. Nimitz and his intelligence staff were agreed by late February that Port Moresby was a future Japanese target, and on 5 March FRUMEL was able to suggest the imminence of a Japanese assault on Port Moresby, based on the presence of IJN carriers and an Imperial Japanese Army (IJA) division in the Rabaul area. A COIC report of 25 April 1942 summarised available all-source intelligence and concluded that:

> All intelligence points to the conclusion that the enemy intends carrying out an offensive from the Truk–New Britain area in the immediate future…and that the major objective is to control the New Guinea–Torres Strait area involving the occupation of Port Moresby. [211]

Sigint also revealed the build-up in air strength at Rabaul, including the establishment of the 25th Air Flotilla, but much of this information was closely held. MacArthur, for example, did not permit Sigint to be passed from GHQ SWPA to naval task force commanders, directing that intelligence derived from Sigint should appear at lower echelons simply as operational directives.[212] His intelligence reports thus claimed to be based on visual sightings of enemy units by both air reconnaissance and coastwatchers, which had the advantage of not compromising ULTRA, but with the disadvantage of not permitting his senior operational commanders an insight into Japanese thinking and planning.[213] Hawaii passed reports based on Sigint to the commanders of US naval task forces (CTF) from the first week of March. Notwithstanding this relaxation, there is no evidence to suggest that CTF 44, Admiral Crace, was receiving Sigint.[214]

A significant Allied Sigint breakthrough was the solving of the IJN digraph/trigraph system of geographical designators in mid-March. Although some eluded solution, the association of 'RZP' with Port Moresby was accepted by early April. On 9 April an intercepted message gave the Allies an order of battle for the MO Operation, revealing that the Occupation Force was to be supported by an Attack Force and a Striking Force containing aircraft carriers. Principal targets of the Striking Force were US carriers: since they had been missed in the Pearl Harbor attack, the IJN Combined Fleet had made the sinking of these its top priority.[215] A further Support Force and two further Occupying Forces were also included, although their targets were not immediately recognised, but these were Tulagi and the Gilbert Islands. By 15 April it was learned that two more IJN carriers had been assigned for duties south of Truk, and Nimitz was able to warn that an offensive in the South West Pacific appeared imminent. This was supported by traffic analysis showing a building up of air assets in Rabaul, confirmed by land-based air reconnaissance.

The USN interpretation of the Japanese objectives was not wholly shared by GHQ SWPA. MacArthur's staff believed that northeastern Australia was the target, as carrier-borne air power was considered unnecessary for any assault on Port Moresby, and they said so in a report for the chief-of-staff on 21 April. There was, indeed, a facet of Operation MO which called for Rear Admiral Takagi's carriers to attack Allied bases fronting the Coral Sea, and this was indicated as a Japanese aim in the COIC report of 25 April. However, Takagi objected to this as a distraction from his principal aim of destroying USN carriers and the secondary aim of supporting the assault on Port Moresby. He was successful in having this task deleted from his orders.[216] MacArthur himself believed that his air reconnaissance assets, primarily B-17s of the USAAF and RAAF Hudsons, would detect any approaching Japanese force.

By 23 April the Allies knew the composition of each of the MO forces in accurate detail. A change of the locator system used by the IJN on 30 April, compromised by the interception of messages containing both the old and new designators, was correctly interpreted to mean that Operation MO had been launched. On 2 May FRUMEL intercepted and recovered a message detailing the role of the Striking Force in the operation, and another indicating that the progress of MO was being delayed by bad weather.[217] On 3 May, X-day (the day of the assault on Moresby) was deduced to be the 10th of the month, with air attacks commencing on X-3. On 4 May, GHQ SWPA began to report the movements, composition and identities of Japanese forces from aerial reconnaissance. On 5 May, the Occupation Force schedule and its broad route were recovered by Sigint, including its position for 0600 (Tokyo time) for that day.[218] MacArthur's B-17s began bombing attacks on the Japanese shipping on 6 May (without significant result) and GHQ advised that an intercept revealed that the IJN Fourth Fleet knew there were USN carriers in its vicinity. These reports emanated from the Japanese force at Tulagi. Fletcher initially gave scant credit to any intelligence support from SWPA, but later recanted. With the IJN forces observing radio silence and nothing

reported by USN submarines, MacArthur's air reconnaissance was his only real source of information outside the coverage of his organic air.[219]

The Japanese plan for Operation MO was multi-faceted, and only a broad description will be necessary. While the Occupation Force sailed from Truk and rendezvoused with the Attack Force from Rabaul on its way through the Jomard Passage in the Louisiade Archipelago into the Coral Sea, the Striking Force would move to the east of the Solomons with the idea of taking in the rear any Allied force attempting to block the way to Port Moresby. Nimitz and his subordinate commanders hoped to surprise the Japanese and eliminate the IJN carriers, using the combined air groups of the two USN carriers in TF 17, and then to defeat their other forces by air and naval bombardment and submarine attack. To do this required intelligence of a high order, and, for the moment, this was available to the Allies through cryptanalysis and aerial reconnaissance.

MacArthur, Nimitz, Fletcher, Leary, Prime Minister Curtin, CNS Royle and many other senior figures had all or most of this intelligence.[220] The question becomes: what did Rear Admiral Crace and his staff know?[221] It is not possible to say categorically that he did not have the benefit of any Sigint on the Operation MO forces. He was not, at any stage, invited onboard USS *Yorktown* for a conference with Fletcher, where some of the latter's Sigint information could have been shared verbally. He had been briefed by Rear Admiral Brown onboard *Lexington* before an aborted attack on Rabaul scheduled for 3 March, but there is no mention of a similar courtesy extended by Fletcher prior to the Battle of the Coral Sea.[222] However, Fletcher's operation order, of which Crace, *Australia* and *Hobart* were recipients, stated: 'The Task Force is referred to daily radio intelligence [this was the USN term for Sigint] promulgated by CSWPF'.[223] If Leary was broadcasting Sigint it was in direct contravention of MacArthur's instructions, but this was a naval battle being waged by Nimitz. As well, the Australians would have needed the appropriate cipher machine and keycards. There is no direct evidence that they held these, although USN officers were attached to the Australian ships for coding duties.

Crace had nothing equating to the radio intelligence teams reporting to Fletcher in *Yorktown* and *Lexington,* and was thus unable to extract information from Japanese transmissions. The RAN had taken the decision in 1938 to remove all its 'WT Procedure Y' operators from ships and establish them in shore intercept stations. Crace was, however, included on the collated all-source intelligence reports emanating from CANF, mostly based on aircraft reconnaissance, from which he was able to make his own assessment of the situation developing in the vicinity of the Louisiades. As the TF 17 air commander was to report: 'Information furnished by shore and tender based air was of considerable value strategically. Tactical information and attack support was non-existent'. Crace and his staff would probably have agreed.[224]

From the Allied side, the course of the battle developed as anticipated, with one exception. Fletcher's operations order stated that:

> TF17 will operate generally about seven hundred miles south of Rabaul. Upon receiving intelligence of enemy surface forces advancing to the southward, this force will move into a favorable position for intercepting and destroying the enemy.[225]

Errors in decoding Japanese intercepts gave Fletcher the impression that the IJN Striking Force under Rear Admiral Takagi Takeo was west of Bougainville, which it was not.[226] Following an air strike on the Japanese garrison at Tulagi on 4 May, Fletcher refuelled his force and waited for the Japanese to come within range to the northwest of him. For his part, Takagi thought the American carriers were well to the south. Consequently, on the evening of 6 May, the US and Japanese carrier groups closed to within 70nm without making contact. On the morning of 7 May, aware from aircraft reconnaissance that the Japanese Occupation Force was moving southwest from Rabaul, Fletcher detached Crace's squadron to act as a blocking force at Jomard Passage.[227] Before detaching TG 17.3, Fletcher had provided his assessment of the situation from all-source information, to wit:

> For information, my estimate of minimum numbers of units between Bougainville Island and Louisiade Archipelago is six cruisers, one aircraft carrier, one seaplane carrier, fifteen destroyers, seventeen transports and merchant ships, three submarines and some auxiliaries. Most units appear to be concentrated about Deboyne Island. One report indicates some units proceeding Jomard Passage.[228]

This information Crace passed to the ships in his force. As standard procedure was for commanders not to break radio silence until in contact with the enemy, further reports to expand on this would have to come to Crace from GHQ SWPA.[229] Fletcher's sources were largely MacArthur's reconnaissance aircraft, and the numbers signalled to Crace were different from those provided to him by Leary. Neither American admiral knew the location or composition of Takagi's force, which they assumed was in proximity to the transports, but both Leary and Fletcher agreed that the Occupation Force would take the Jomard route into the Coral Sea. However, once battle was joined, the radio intelligence units embarked in *Lexington* and *Yorktown* were able to provide the Americans with a wealth of information, including confirmation of Japanese aircraft losses and the extent of damage wrought by US aircraft. Parker's comment that neither of the opposing commanders was able to make the correct tactical decisions based on this information reinforces the point that Sigint only achieved its optimal success when placed in the hands of a competent commander.[230]

What Fletcher did not know was that SWPA's air reconnaissance forces were not aware of the location of the Allied surface forces nor, according to some reports, that a major naval engagement was in progress in the Coral Sea. This was to have unfortunate consequences for TG 17.3 in the immediate future. A further significant fact Crace was unaware of was that his force had been detected by a Japanese flying boat shortly after detachment from TF 17, and been reported as comprising two battleships, two cruisers and destroyers. To Admiral Inoue this represented the major threat to his Occupation Force: he ordered his transports to reverse course at 0900 and directed the 25th Air Flotilla to destroy TF 17.3.[231]

Crace was not well provided with organic intelligence resources. He had no air cover, but he did have the amphibian assets of his own force for scouting. He decided not to use these, as the necessary launching and recovery operations may have endangered his own ships. Crace's reluctance to launch his aircraft is interesting in the light of his great uncertainty about the exact whereabouts of the Japanese. Although not aware his force had been detected, he knew he was being shadowed and observed from about 1130. A possible explanation can be found in War Orders for HMA Squadron, which stated: 'Unless the recovery of cruiser borne aircraft undamaged is reasonably assured they should not be employed on searches and patrols'. He also had radar in *Chicago* and HMAS *Hobart* but this was useful only for detecting aircraft, and the war diaries for Coral Sea indicate that it served this purpose admirably.[232] His force was equipped with HFDF and intercept equipment, and the latter was used to monitor the progress of operations by the air wings of the US carriers.

Crace thus had a broadly accurate idea of his enemy (except for Takagi's carriers), its location and its intentions, but he had little detailed information on the present whereabouts of his target. He had no personal experience of fighting the Japanese – *Hobart* was the only ABDA veteran present – and there was little doctrine to guide his appreciation of how his IJN opponent might approach the problem of forcing Jomard Passage. He was very aware that the threat to his force and its mission would come from the air. He was not well informed on the position of his CTF, nor of the progress of the fighting which was taking place between the carriers.[233] He did not expect any but indirect support from Allied Air Forces, which assessment was quite correct. Post-action analysis indicated that Allied Air Forces had difficulty finding the aircraft to conduct the reconnaissance and strike missions ordered: only 80 per cent of the reconnaissance sorties produced any result, and only 50 per cent of the ordered strikes took place.[234]

Map 5 is a track chart of the battle, based on the map in Gill's *Royal Australian Navy, 1942–1945*, showing Allied and Japanese dispositions and movements. The role of TG 17.3 in the Battle of the Coral Sea is usually relegated to sideshow status, and this is understandable, given the stakes riding on the carrier versus carrier battle about to be joined. The action part of the story is quickly told.
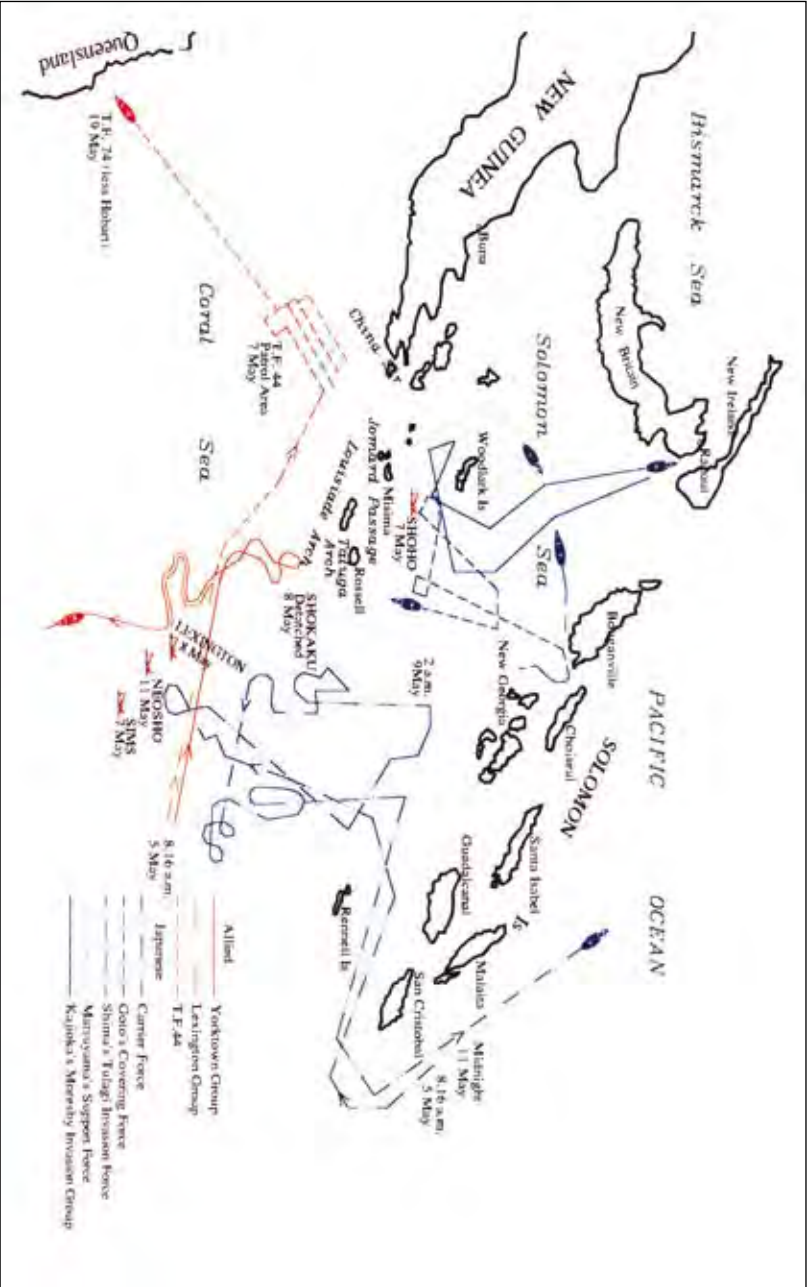
Map 5 - Battle of the Coral Sea, May 1942

When approaching Deboyne Island, Crace took the precaution of ordering his force into anti-aircraft formation. On the afternoon of 7 May his ships successively came under bomb and torpedo attack by three air strikes – the third by the USAAF – all of which were successfully beaten off with very minor damage to the ships and some losses to the Japanese attackers. On receipt of air reconnaissance reports that the transports had turned back, Crace slowly opened Jomard Passage and then took up a night station to the west to intercept any force that might attempt to make a night transit in the direction of Port Moresby. In the end, on 9 May he assessed that Fletcher would by now be retiring and, with his ships short of fuel and no further instructions from the flag, he broke off the search and returned to Australia.

Most accounts of the Battle of the Coral Sea dwell on the carrier duel and award the result to the Japanese on points. They sank *Lexington* and damaged *Yorktown,* major USN assets of great value, while losing the small carrier *Shoho* and suffering serious damage to the larger *Zuikaku.*[235] And analysts correctly point out that it was the absence of the latter that probably weighed in the Americans' favour at the Battle of Midway in June. But the major objective of Operation MO was to occupy Port Moresby. In this the Japanese failed, not least because the assets and weapons which might have been used by Admiral Inouye to support the Striking Force in attacking and overwhelming the US carriers were instead directed at Crace's cruisers.[236] The Occupation Force was turned back not because of the discovery of USN carriers to the south, which was, after all, part of the Japanese plan, but because battleships were identified in TG 17.3 by the IJN shadower.[237] There are few cases where one bad intelligence report had such a profound effect on the result of WWII.

> The important, the real victory – hidden to all protagonists at the time – was not to be counted in the number of ships sunk nor in the number of aircraft shot from the skies over the placid Coral Sea; it was the denial of the passage to the Port Moresby invasion forces. Therein lay the victory. And it was a crucial one.[238]

## The Battle of Savo Island, August 1942

Until August 1942, Allied warships had confronted a broadly equivalent Japanese force only in the Battle of the Java Sea in February, and there the Allied force of American, British, Dutch and Australian cruisers and destroyers under Dutch Rear Admiral Doorman had been comprehensively defeated. Now, American determination to establish and to consolidate the Solomon Islands as a stepping stone for progressive assaults on the Japanese positions in Melanesia was to precipitate a series of bitter surface actions between the USN and IJN, joined on occasion by ships of the other

Allied navies. The first encounter occurred on the night of 8–9 August in the waters of the southern Solomons, dominated by the conical bulk of Savo Island, and its outcome was to be determined by significant serial failures of intelligence.

This battle occurred as a consequence of Operation WATCHTOWER, the code name given to the recapture of several small Japanese bases on the islands of Tulagi (the colonial administrative centre for the group), Tanambogo, Gavutu and Guadalcanal.[239] Allied intelligence revealed that the IJN had begun construction of an airfield on Guadalcanal from which aircraft would be able to threaten the maritime lines of communication between the United States and Australia. They had landed on 2 May at Tulagi with a view to using it as a seaplane base, but by 19 June work had begun on the strip at Lunga Point on Guadalcanal, which would be capable of supporting larger and more capable aircraft. These Japanese positions and their naval support force had been attacked by Fletcher's carriers on 4 May, with excellent results.[240]

WATCHTOWER had been mooted prior to the Japanese occupation. The defence of US-Australia communications was discussed at the Arcadia conference in December 1941–January 1942, but the work on the airfield at Lunga Point now advanced the timetable for action.[241] The final plan called for the landing of the 1st US Marine Division on the three smaller islands and Guadalcanal from transports escorted by a cruiser/destroyer force, while combat and close air support was provided by two USN carriers. Finding the necessary ships, both naval and military sealift, proved to be a difficult task, and the CCS directed that TF 44 should be transferred for the operation from the SWPA command to South Pacific (SOPAC) command, led by Vice Admiral Ghormley, USN, located in Wellington, New Zealand. Rear Admiral Turner USN was appointed to lead the expedition as Commander Amphibious Force South Pacific (TF 62), while Rear Admiral Crutchley, RN (RACAS), as Commander Task Group (CTG) 62.6, was appointed deputy commander, commander of the Escort Force for the passage to the Solomons and commander of the screening group once the landings had begun.[242] Command of land and water based aircraft in the South Pacific command (TF 63) was delegated to Rear Admiral McCain, USN.

This operation recorded a number of firsts. Discounting the US destroyer attack on a Japanese convoy off Balikpapan on 24 January 1942, it was the first major surface action fought under USN command since 1898. It was the first opposed landing by the US Marine Corps, and the first supported by carrier aircraft, from Admiral Fletcher's TG 61 comprising US Ships *Wasp*, *Saratoga* and *Enterprise*. It was the first time in which a foreign officer held the post of deputy commander of a US task force, and it was Admiral Turner's first experience of task force and combat command.[243] This latter observation applied to most of the US ships and men involved (with the significant exception of two of Fletcher's carriers), though not to the Australians.[244]

By contrast, Crutchley had won the Victoria Cross for his part in the British attempt to block the entrances to Zeebrugge and Ostend harbours in 1918, and had served as flag

captain to Admirals Pound and Cunningham in the Mediterranean in the battleship HMS *Warspite*. In that ship, he led a British assault on Narvik Fjord during the Norwegian campaign, in which ten German destroyers and a submarine were destroyed. Interestingly, he had also served in the RN's New Zealand Division from 1930 to 1933, becoming familiar with the island groups where the Solomons campaign was to be fought ten years later. He was eight years younger than Turner, and younger than most of the US cruiser captains. However, he had assumed command of TF 44 from Crace only on 13 June. Finally, WATCHTOWER was the first time cooperation between two adjoining US commands was attempted. The newness of the organisation that was to undertake this operation would contribute to some of the intelligence errors.

Intelligence support for WATCHTOWER was apparently sound. Through Sigint and air reconnaissance, the Allies had a reasonable idea of what Japanese forces could contest the operation. Vice Admiral Mikawa Gumichi's presence in Rabaul and that of the Sixth Cruiser Division at Kavieng were known, they believed up to 15 submarines were in the area, and they appreciated that the Japanese could field some 150 aircraft.[245] They understood the Japanese seizure of Tulagi and construction of an airfield on Guadalcanal were parts of an overall Japanese plan to dominate the region, principally through air power. The Allies had some information on Japanese intelligence capabilities, as they observed strict radar silence on the passage to the landings for fear of alerting the enemy.[246] However, they had little idea about IJN tactics, particularly that of fighting at night to make up for numerical inferiority, nor of the use of cruiser floatplanes as reconnaissance and gunnery-spotting platforms.

The WATCHTOWER landings took place with varying degrees of opposition on 7 August, and the Allied force easily repulsed attacks by IJN bombers and torpedo bombers from Rabaul on 7 and 8 August, with small loss. However, Admiral Fletcher's anxiety for the safety of his carriers under the threat of Japanese air attack caused him to withdraw them on the afternoon of 8 August, earlier than planned.[247] As a consequence, Turner took the unpalatable decision that the transports must also be withdrawn from the sound, beginning at 0730 on 9 August, otherwise they would have little protection against repeat Japanese air attacks.

For the nights of 7–8 and 8–9 August, Crutchley deployed his cruisers and destroyers in three groups to protect the three feasible approaches to the anchorages off Tulagi and Lunga Point. Three heavy cruisers of the ANZAC Squadron, *Australia* (flagship), *Canberra* and *Chicago,* supported by two US destroyers, were assigned to the gap between Savo Island and Guadalcanal. This assignment was predicated upon Crutchley's appreciation that his ANZAC Force had now been operating in company since February as TF 44 and had developed a fair degree of instinctive reaction to incidents. Three US cruisers and two destroyers were assigned to patrol the eastern gap between Savo and Florida Island.[248] To the north and west of the cruiser groups, two US radar picket destroyers were positioned. A third warship group, comprising two light cruisers, five

destroyers and ten destroyer/transports and minesweepers, was positioned in close proximity to the transports, principally on anti-submarine warfare (ASW) duty, about 15 miles from Savo.

At 2045 on 8 August, *Australia* detached from the southwestern cruiser squadron because Turner convened a command conference in his flagship off Tulagi.[249] When Crutchley returned to his flagship about 0115 on 9 August, he decided not to rejoin the southwest cruisers but to establish a patrol line between the entrance to the anchorage and the transports. Shortly after 0100, a Japanese task group of five heavy and two light cruisers and a destroyer under the command of Vice Admiral Mikawa entered the area from the north and, with the assistance of flares dropped by their floatplanes, quickly disposed of or disabled the southwestern force.[250] The Japanese then turned to destroy the eastern force, which they did with few casualties. However, Mikawa failed to complete his mission to destroy the transports, and departed the anchorage for the return voyage to Rabaul.
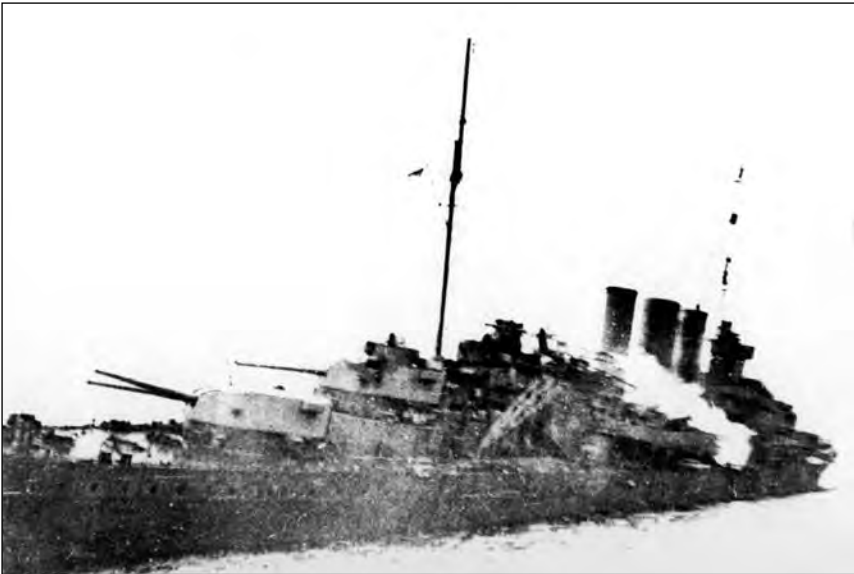


HMAS *Canberra* listing after being struck by Japanese
shellfire at the Battle of Savo Island, August 1942

The Allied naval disaster of 9 August has been extensively discussed, examined and analysed. In the wake of the battle, Admiral King appointed Admiral Hepburn to carry out a thorough enquiry, and his report is a principal repository of information on the action. The US Naval War College 'wargamed' the battle and published its findings. The RAN convened a board of inquiry into the loss of *Canberra*. Both Morison and Gill covered the action in detail in their official histories. In addition, several memoirs published by USN principals after the war refer to the battle, and there have been a number of monographs pursuing alternative explanations for the Allied debacle. However, there is general agreement in all these accounts that the severe mauling by the IJN had two principal causes, namely the absence (or misuse) of intelligence on the approach of Mikawa's force, and the unpreparedness of the Allied force for night action against the Japanese.[251] Only the first premise is examined here.

Sigint provided a useful background of intelligence information to the Allied commanders in the lead up to WATCHTOWER. Included in this was the advice that additional air units were being flown into Rabaul, and that the pattern of IJN operational activity indicated that some kind of operation was being planned.[252] However, unlike the Battle of the Coral Sea, the Sigint contribution to the outcome of the Battle of Savo Island was limited because an IJN code change from JN-25B (8) to the (9) edition on 27 May caused about a week's delay between interception and intelligence recovery. Consequently, Mikawa's message assembling his force was not decrypted until 23 August. However, IJN Sixth (submarine) Fleet communications, used by squadron commanders to order their boats on missions, and by boats to report their positions and results of contact with the enemy – coded in a different system, JN-4 – were accessible.

Traffic analysis and callsign recovery indicated that Mikawa was communicating with Japanese units already known to be in the area, but the reason – apart from the obvious one of a reaction to Allied activity in the Solomons – was unable to be identified. Analysis of 7 August disclosed that Mikawa had shifted his flag from shore in Rabaul to a ship. This significant move was reported in the ULTRA summary for 8 August, but does not seem to have been associated by any of the Allied staffs with a drive against the Amphibious Force.[253] However, previous decrypts and traffic analysis did contribute to the overall Allied plan by revealing the pattern of IJN air reconnaissance over the Solomon and Coral Seas, the routes taken and the times missions were flown.[254] The passage of TF 62 to Tulagi had been planned so as to avoid these flights, and TF 63 was also aware of them.

Neither Turner nor Crutchley had a mobile Sigint team embarked. Turner had been offered one, but had declined on the grounds of the poor communications facilities in his flagship, the attack transport USS *McCawley*.[255] Unfortunately, this denied him the services of an officer who could receive and interpret ULTRA traffic. As at the Battle of the Coral Sea, RAN cruisers carried DF but no intercept personnel, and it

is not clear that Crutchley was authorised to receive or trained to interpret ULTRA information.[256] In any case, Mikawa's strict radio silence after leaving Rabaul negated any Allied attempts to relocate his force by its communications. Both Allied admirals were receiving information regarding submarine deployments into their operating area from CANF and CINCPAC.[257]

Three other major intelligence collection systems had the capacity to overcome this lack of Sigint. First, there were the submarines deployed by CANF from Brisbane to watch the straits between Japanese bases at Kavieng and Rabaul. These boats were not just on reconnaissance duty, and had been tasked to attack Japanese forces should the opportunity permit. The second intelligence collection system was air reconnaissance, and Turner had four sources of aircraft for this purpose. The first were the floatplanes carried by his cruisers, 45 aircraft in all, and during WATCHTOWER these were deployed during daylight hours on anti-submarine patrols around the force and the transport anchorages.[258]

The second air resource was McCain's TF 63, comprising 145 amphibians and land-based aircraft. [259] McCain's B-17s, with a search radius of around 800nm, operated from bases in Noumea, New Caledonia and Espiritu Santo in the New Hebrides, and his Catalinas were launched from mobile bases created by seaplane tenders at Santa Cruz, south of Guadalcanal, and Malaita, to the east of Tulagi. Their radius of action was about 900nm. These aircraft types were to search the areas north and east of Guadalcanal and as far west as New Georgia. A diagram of the combined air search plan for McCain's forces, assembled from a number of sources, is at Map 6. On 7 August, Turner asked McCain to extend the area searched by his aircraft westward of New Georgia, even though this was 'poaching' into MacArthur's area of responsibility. McCain's lack of response to this order appears to have resulted from a communications breakdown.

Turner's third air reconnaissance resource comprised the aircraft of TF 61, conducting morning and afternoon air patrols out to around 350nm from their carriers. However, these were not under Turner's command, and reconnaissance sorties were flown at the discretion of Fletcher, CTF 61. The fourth source was the aircraft assigned by GHQ SWPA, comprising B-17s and Hudsons, the former to search the New Britain area, and the latter the Solomons Sea. Allied Air Forces SWPA were also encouraged to interdict Japanese air and surface forces in support of WATCHTOWER, although the few strikes on Rabaul accomplished little, and an attack on ships would be contingent upon COMSOPAC requesting same. But all told, there were 635 Allied aircraft involved in the operation.

The third major intelligence system available to Turner comprised the RAN Coastwatchers, located on islands up the chain from Tulagi to Bougainville. From May 1942 onwards these had already provided a considerable quantity of intelligence to COMSOPAC on the Japanese landings, numbers and types of forces, positions of enemy strongpoints and progress of construction at Lunga Point, as well as weather reports
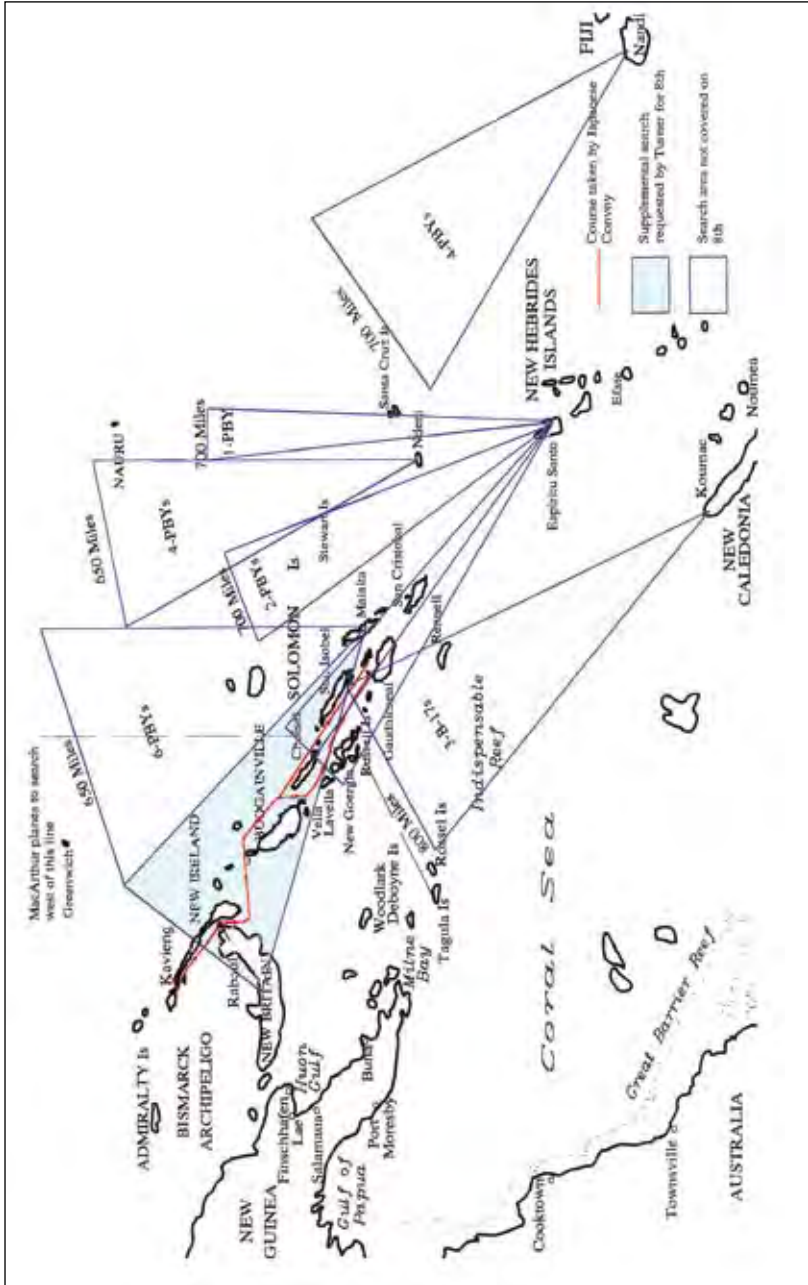
Map 6 - Operation WATCHTOWER Air Search Plan

on the landing zones.[260] They, with air reconnaissance, had identified mine-free areas used by Japanese shipping. More directly, RAN Coastwatchers landed with the 1st Marines on Tulagi as guides. Japanese air attacks of 7 and 8 August had been detected and reported well in advance of time on target by Coastwatchers in Bougainville, which was on the direct air route between the Kavieng and Rabaul IJN bases and the Allied positions.[261] The Japanese knew of the existence of Coastwatchers on Bougainville, but efforts to track down and eliminate them had been unsuccessful. Aware of their importance to the campaign for Guadalcanal, GHQ had ordered them to keep a low profile from July onwards lest they be detected and eliminated by the Japanese before operations began.[262]

Defence priorities for Crutchley and Turner on the night of 8–9 August were undoubtedly submarine, air and surface in that order. There was plenty of intelligence about submarine activity. CINCPAC had been monitoring the Japanese Sixth Fleet traffic directing all available submarines to concentrate in the Guadalcanal area, although none had been sighted in the sound. Each cruiser division had a small screen, but the major ASW assets were disposed around the transports. In fact, the IJN submarine reinforcements did not reach Guadalcanal until after the transports and their escorts had departed on 9 August. Detection of air threats was by the radar of the air direction ship *Chicago* and combat air patrols from the carriers. At that point Crutchley did not know, nor did Turner, that Fletcher's carriers had been opening the range from the anchorage since late afternoon, and were unable to provide this. In any case, some confidence could be drawn from the good account of themselves the surface vessels had given against previous Japanese air attacks.

Prior to receiving a long delayed report by RAAF aircraft of a sighting of Mikawa's ships by Turner and Crutchley at 1807 on 8 August, there had been no intelligence to suggest a surface threat was imminent. Both believed that reconnaissance of the Rabaul area by MacArthur's forces, supplemented by the surveillance closer to the anchorages by McCain's aircraft, would provide ample advanced warning of the approach of an enemy surface force.[263] Two powerful cruiser divisions blocked the entrance to the sound, while a third gave close support to the transports. A radar-equipped destroyer was patrolling to seaward of the cruiser groups and these pickets would detect any ships approaching the Allied force when within range. Most of the cruisers were also radar equipped, and their sets were producing results.[264]

Summing up the situation as it might have appeared to Crutchley and his staff, they did not know the exact location of enemy's forces, although their potential in the Rabaul area was known, and they knew that Mikawa was possibly at sea. Crutchley and Turner had incorrectly appreciated that any Japanese surface activity would accompany the establishment of a seaplane base at Rekata Bay to the north of Malaita to bring the Amphibious Force under more direct air attack. The capabilities of Mikawa's weapons systems in terms of gunnery were known, and judged inferior. The

Allies had little knowledge of what tactics the IJN might use, but did not entirely rule out a night attack.[265] They could be reasonably sure the Japanese knew the location of the Amphibious Force, but they did not know of any limitations on action that Mikawa might have. They had reason to be confident that TF 62 was well protected against any surprise attack. In order to launch one, a Japanese surface force would have to be missed or misidentified by MacArthur's submarines and aircraft; elude air reconnaissance missions flown by TF 63; avoid being sighted by the Coastwatchers; evade the carriers' reconnaissance patrols; and escape radar and visual detection by the picket destroyers and the cruisers.

Unfortunately for the Allies, the Japanese force did manage to evade all their surveillance efforts on 8–9 August. Considering this debacle from an intelligence viewpoint, for Turner and his ships the first link in the intelligence chain was broken by the Japanese change of codes on 27 May. The second link did not fail to sight Mikawa's force. Japanese surface units were located proceeding southeast through St George's Channel (between New Britain and New Ireland) at dusk on 7 August and reported by submarine *S-38*, but the significance of this movement for WATCHTOWER was not recognised. The following day, Mikawa's force was detected and visually identified off Bougainville by patrolling Hudsons at 1020 and again at 1101.[266] The problem was that these aircraft had not been informed of Operation WATCHTOWER and were relatively accustomed to seeing Japanese surface units in the vicinity of Bougainville: reporting them was not seen as a matter of urgency. But the aircraft did make an enemy contact report promptly – it was intercepted and copied by the Japanese force. The first Hudson returned to its base at Milne Bay after being unable to get a receipt for its report. Because of handling delays in the RAAF communications system, the information was not signalled to TF 62 until 1807 on the night of the 8 August. Worse, but not for the first or last time in air reconnaissance of naval targets, the aircrew misidentified the ships, reporting that the group contained a seaplane tender. This seemed to analysts and operational staffs to indicate that Mikawa was on his way to establish another seaplane base – standard IJN operating procedure.[267]

The third link – the Coastwatchers – were not able to sight the IJN force, as Mikawa kept well clear of land until nightfall, and his ships were not detected by shore observation. The fourth link, which ought to have negated the failure of the first three, simply did not fly the assigned missions. There was no TF 63 air reconnaissance of the northwestern approaches to the TF 62 anchorages on the afternoon of 8–9 August because of poor weather, but McCain failed to inform Turner of this until nearly midnight on 8 August.[268] The carrier aircraft, whose bases were already departing the area, searched to a depth of about 200nm from Savo, well south of Mikawa's position. Finally, the picket destroyers saw nothing of the Japanese, despite Mikawa's ships being in full visual contact with the destroyer USS *Blue*, which was steaming across the southwest approach to the sound at between two and three miles distant.[269]

Crutchley, who devised the night disposition of the screening force, and Turner, who endorsed it, had no intelligence of an impending surface strike. The information they had received was fragmentary, old and ambiguous, and they reached decisions on night dispositions that accorded with their understanding of the situation. Despite adverse comment in the aftermath of the battle, the Hepburn Report reached much the same conclusion.[270] The disposition of the Allied ships and the track of Mikawa's force, as reconstructed by Loxton in *The Shame of Savo*, are illustrated at Map 7, and Crutchley's arrangements still seem sound. The Japanese force should have been detected, intercepted and destroyed.[271]

The outcome of this succession of intelligence failures saw four major Allied units sunk, or damaged and sinking, and the transports hurriedly departing the anchorage, leaving the Marines to fight on unsupported. Someone had to bear the blame, and USN investigators certainly pointed fingers, particularly at the Hudson crews.[272] However, no retributive measures were taken against either Turner or Crutchley. Commander SOPAC, Admiral Ghormley, lost his job and Fletcher was given a shore command, but McCain served on.[273] The final word can be left to Turner who, although not the most amiable of men, nor the best tactical commander in the USN, surely had right on his side when he said:

> I have been accused of being and doing many things but nobody before ever accused me of sitting on my arse and doing nothing. If I had known of any 'approaching' Jap force I would have done something – maybe the wrong thing, but I would have done something.[274]

## Operation HAMBURGER and the loss of HMAS *Armidale*, December 1942

As a result of the Anglo-Dutch-Australian discussions of April 1941, the Australian Government agreed to undertake a number of military commitments in support of the Netherlands East Indies. These included deploying RAAF squadrons forward into the Netherlands East Indies, and providing garrisons to supplement NEI military forces on the islands of Ambon and Timor.[275] Independent all-arms forces were raised and trained for the latter duties, and dispatched to their war stations in December 1941.

Sparrow Force, as the Timor unit was designated, was augmented by one of four specially selected and trained independent companies. These were to act as harassing forces, not so much to defeat an enemy force but, by engaging in guerrilla warfare, to tie down and hamper a much larger force than would otherwise be appropriate to the circumstances. Both Sparrow Force and the 2/2 Independent Company were initially landed in Kupang, the capital of Dutch Timor. Later, 2/2 Independent Company under Dutch command participated in the peaceful 'invasion' of the Portuguese areas of
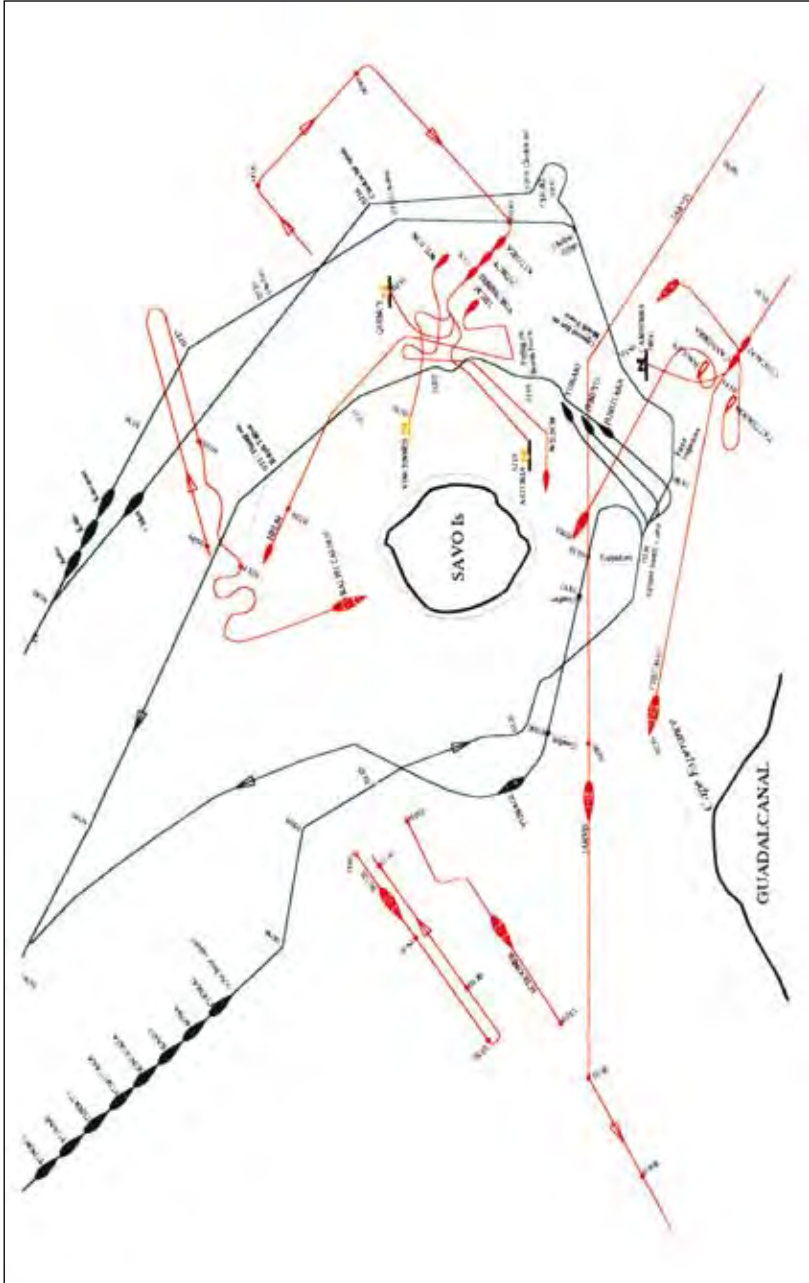
Map 7 - Battle of Savo Island, 8-9 August 1942

the island in an effort to forestall the Japanese from taking advantage of Portuguese neutrality. The Portuguese did not resist the Allies, but neither was their support total. Between September 1941 and the Japanese attack, the British Government had originated the plan, convinced the Dutch and Australian Governments to participate – there were no British forces involved – and then disowned the idea as it became aware of the outrage felt by the Portuguese at the proposal.[276] The plan surprised the Australian consul in Dili, Mr. David Ross – an NID officer serving with Department of External Affairs – but he had a significant role in its execution.

The Allies did not really believe that these relatively small forces could prevent a Japanese landing, but they did hope to provide sufficient resistance to slow the Japanese advance through the Malay Barrier. The topography of Portuguese (East) Timor promised opportunities for this kind of warfare. In due course the Japanese did invade Timor, on the night of 19 February 1942, landing at both Dili, the Portuguese capital, and Kupang, and their troops and naval gunfire support quickly routed the token Allied forces opposing them. The remnants of the Allied regular troops retreated into the hinterland, where elements joined up with 2/2 Independent Company, while the Japanese, needing their shock troops for further assaults in NEI, quickly reduced their force levels to little more than garrisons.

Lack of communications with Australia prevented news of the situation in Timor being conveyed to Allied authorities – GHQ had assumed that all resistance in Timor had been overcome. However, this was corrected by amazing feats of self-reliance on the part of the Independent Company, which managed to re-establish radio contact with Australia on 20 April. Allied planners now realised that by supporting the soldiers in East Timor they could achieve the aims of collecting intelligence on the Japanese, directing bombing raids on the Japanese garrisons, and tying down the IJA. Accordingly, GHQ SWPA issued orders on 19 June 1942 that the force on Timor was to be supported until compelled to withdraw.[277] A system for re-equipment and resupply of the force, plus the introduction of fresh troops and the evacuation of the sick, wounded and some Portuguese citizens, was put in place, with the RAN responsible for most of the work. Commanding the operation of these supply missions was the Naval Officer-in-Charge (NOIC) Darwin, in late 1942 Commodore Cuthbert Pope, RN.

The means available were severely limited: Timor did not have a high priority, and ships and aircraft suitable for the resupply missions were few. In time, 2/2 Independent Company was being served by a combination of Catalina flights, stores drops by Hudsons and landings and extractions by RAN ships. None of these was totally safe from interdiction. The IJA maintained a fighter squadron at Dili, which was used not only to attack the Allied positions but could and did intercept RAAF and USAAF supply and bombing missions, and they had bombers based in the Moluccas to attack both Sparrow Force and cooperating ships. The Japanese also flew regular surveillance

patrols around the coast of Timor, and it was across the beaches of the south coast of East Timor that resupply by sea had to be undertaken.[278]

Hydrographic information on this coast was far from complete, and the surf on the landing beaches was often hazardous to ships and passengers. For ships, the problem was the exposed nature of the coast and the extreme depth of water practically up to the beach. The 20-metre line was only 150 metres from the shore, and a commander needed to get very close to the beach to find water shallow enough to anchor in, with the consequent danger of grounding when his vessel's stern swung towards the shore. In September 1942, the veteran destroyer HMAS *Voyager* became a total loss and had to be destroyed when she grounded off Betano during a troop exchange mission. Subsequent attempts were made to identify other landing sites further to the east of Betano, but the problem was never satisfactorily resolved. Delays in landing and embarking stores and troops because of adverse weather and inadequacy of the chosen beaches critically affected the schedule of the supplying ships.[279]

There was also a tidy speed-time-distance problem for surface ships employed in this role. The distance from Darwin to the south coast of Timor is about 360nm. To avoid detection by the Japanese and the attendant risk of air attack, ships needed to close and leave the landing zone in darkness, with a generous margin of the latter left so that they could get clear before the morning IJA coastal surveillance aircraft arrived. NOIC Darwin was able to call upon air support from the 20 RAAF Beaufighters based at Drysdale, about 250nm from the scene of action off the south coast of Timor.[280] Assuming Allied air support could be provided reliably out to 100nm from Darwin, the danger periods were on the outward voyage until nightfall (around 1800) and from IJA dawn patrol time (around 0800) until the ships were back under the shelter of the available air support.[281]

The general shortage of destroyers meant that this task, Operation HAMBURGER, devolved to much less capable ships – the RAN's corvettes (AMS) and even smaller craft. As these had a maximum speed of only 15 knots, their period in the danger zone from air attack was much greater. The method adopted for the Timor resupply missions, therefore, was to sail ships around noon, putting them under defensive air cover until dusk, after which they could approach the designated beach with impunity. Slower craft took even longer, and they could carry fewer troops and lesser stores volumes but, by September 1942, the small motor vessels HMA Ships *Kuru* (55t, speed 9kts) and *Vigilant* (106t, speed 13.5kts) had successfully completed nine round trips. Nor were the corvettes well armed: the standard armament was one 4-inch dual-purpose gun on the forecastle, three 20mm Oerlikon guns mounted abaft the bridge and 2 x .303-inch Lewis guns. The 4-inch gun was not designed for the high-angle work typically required in anti-aircraft fire.

Meanwhile, on Timor the activities of 2/2 Independent Company had the desired effect. The Australians inflicted more than 1000 Japanese deaths for minimal losses, while

considerable parts of the Portuguese territory were virtually under Australian control. In response, the IJA supplemented its Timor force with a division fresh from China and began a series of manoeuvres designed to encircle and eliminate the Australians. By September 1942 these manoeuvres were succeeding, and on 2 October NOIC Darwin was asked by the General Officer Commanding Northern Territory Force to make some preparations for the withdrawal of Sparrow Force.[282] The total numbers were 363 all ranks from 2/2 Independent Company plus stragglers, together with around 150 NEI troops to be recovered and 50 NEI replacements to be inserted.

On 24 November Allied Land Force HQ confirmed the requirement for the evacuation of the troops and Portuguese civilians. Pope had few resources for this considerable task, and elected to deploy *Kuru* together with the corvettes HMA Ships *Castlemaine* and *Armidale. Kuru* was to ferry troops from the beach in Betano Bay to the two corvettes and to return to land the NEI replacements. All three would then sail for Darwin. Because of the numbers involved, each of the ships would be required to make two round trips, arriving off Timor on 29 November and again on 4 December.

What intelligence did Pope have in planning this operation? The successful series of HAMBURGER resupply missions provided him and his staff with a good knowledge of the operational and hydrographic hazards of the enterprise. The surveillance patterns of the Japanese were known, and their ability to respond rapidly with an attack after detection was also recognised. The planners probably felt confident that the success of prior missions demonstrated that the effectiveness of IJA air attacks by medium-level bombing was low, even against such lightly armed vessels as corvettes. Pope may not have known that the Japanese in Timor had a good idea that the operation was imminent, and that their growing pressure on Sparrow Force and Lancer Force had now extended to the south coast of the island.[283] He may also not have been aware that Japanese pressure had forced the Australians out of positions where they could observe and report on military activities around Dili, especially at the airport.

Pope knew where the enemy was and believed he knew what strength it could muster against his ships. He knew Japanese aims and objectives, their weapons and platform capabilities, and the tactics they had used against previous missions. He knew the locations and capabilities of his own units: *Castlemaine* had made a previous voyage to Timor, but it was the first time for *Armidale,* which commissioned in July and had arrived in Darwin only on 7 November. *Kuru* was an old hand at the game. Pope's staff had amassed a useful store of hydrographic intelligence to obviate any further strandings of his ships, and he appreciated that the monsoonal conditions over the Timor Sea could well interfere with enemy air operations and provide useful cover for his forces. RAAF records of operations over the Timor Sea in support of HAMBURGER demonstrate the extreme variability of the weather, with the positive outcome that there were plenty of rain squalls in which the ships could hide from Japanese aircraft.[284] He knew he could call on Allied air resources to provide a modicum of defence for his ships.

Pope was aware of the risks involved in the complex operation being planned, but he believed they were acceptable in the light of the pressures to recover Sparrow Force and Lancer Force. His superiors at ACNB and GHQ SWPA also thought so, for they approved the operation, although MacArthur attempted to disown responsibility for HAMBURGER after *Armidale's* loss.[285] What intelligence Pope provided to his ships is unclear, as the 'Intelligence' annexes have been removed from all the copies of the operation order the author has been able to locate.

*Kuru* sailed as ordered, and arrived unscathed off the Betano beach a little behind schedule, embarked her quota of troops and stood off, waiting to transfer them to one of the corvettes. However, fortune had not smiled on *Castlemaine* (senior officer) and *Armidale.* Having sailed the previous day and steamed undetected towards Timor, at 0915 on 30 November, a Japanese reconnaissance aircraft spotted the two corvettes about 120nm off the island. Surviving a bombing attack by four aircraft called in by the scout, the ships then made a bold alteration of course to the south in the hope that the aircraft would not divine their intentions. However, there were few other possible destinations, and the ships endured a series of bombing and strafing attacks by Japanese aircraft until dusk. Pope had Beaufighters dispatched to provide air cover, and these succeeded in driving off the second wave of bombers. So, delayed by these evasion attempts, the two corvettes arrived at the rendezvous late and were unable to locate either the beach party or *Kuru.*[286]

The operation was now severely compromised. The Japanese knew there were two RAN corvettes off the south coast of Timor, and Pope recognised that.[287] He arranged for air cover for the ships and attacks on the airfield at Dili, but determined that the operation should be rescheduled for 1 December, with the corvettes standing off the Timor coast during daylight hours. In the interim, a rendezvous was effected with *Kuru,* and her troops were transferred to *Castlemaine.* Again coming under Japanese air attack that morning, the ships were ordered by Pope to disperse, *Kuru* back to Betano, *Castlemaine* to Darwin with the evacuees, and *Armidale* to chase rain squalls in which to hide until it was time to close Betano Bay again that night. Pope's orders contained the homily, 'Air attack is to be accepted as ordinary routine secondary warfare'. It was soon to become a primary concern of the three commanding officers, for they endured a day of repeated air attacks by IJA bombers and fighters. Superior ship handling and accurate defensive fire staved off these attacks until 1515, when *Armidale* was hit by two torpedoes and sank shortly thereafter. A track chart for *Armidale*, reconstructed by the author from records produced at the Board of Inquiry into her loss, is shown at Map 8.

The dreadful fate of most of the Dutch and Australian survivors is not for this account to cover, but *Armidale's* sinking put paid to the extraction attempt.[288] Subsequently, in response to the pressing need to evacuate the troops, and Pope's disinclination to risk any more corvettes, a destroyer was found and, over the period 9 to 17 December, completed the evacuation and insertion operation in three sorties without incident.

Map 8 – Loss of HMAS *Armidale*, December 1942

The loss of a single corvette was not a serious matter to the Allied cause, but it must be asked why Pope and GHQ persisted following the sighting of the two corvettes on 30 November, when it was clear that the Japanese had the knowledge, means and the will to interdict the operation. There was certainly no lack of intelligence. One must be careful in applying hindsight too rigorously in judging Pope and his superiors. His ships had established an enviable record in supporting the Timor force over the previous five months, with only one loss (and that by stranding) and without serious inconvenience from Japanese attempts at interdiction. This might have induced a degree of hubris in NOIC Darwin, his staff and his ships. Then there was the pressure from the Army to withdraw the troops. However, Allied intelligence had not detected the presence of Japanese torpedo bombers in Timor. Pope expressed his surprise at their appearance, and none of his ships informed Pope that they were being subjected to anything other than the standard medium-level bombing attacks, a fact that could have influenced his decision to continue with the operation.

However, a more prudent commander might have suspended the operation when it became apparent on 30 November that, even if the troops could be extracted from Betano beaches, there was every chance they may not survive the voyage home. The Japanese were fully alerted and were opposing the extraction attempt with the most sustained attacks in the history of Operation HAMBURGER. The odds were that they would succeed in destroying or crippling one of the precious ships, especially after the corvettes scattered. Nevertheless, the RAN Board of Inquiry found no blame attributable to either Pope or his commanding officers. The intelligence support for the operation was not investigated during the proceedings.

## Outcomes

In the first five months of the Pacific War the Allies were able neither to delay the Japanese advance nor extract from the aggressor a commensurate price for the losses they suffered in men and materiel. This was not, as has been demonstrated, because of any lack of warning or a failure of intelligence to present a realistic picture of the capabilities of the Japanese armed forces. The date and place of the assault may have been missing, but all knew that the blow was soon to fall.

The Allies paid the price for their inability to treat intelligence on Japanese fighting capabilities and military technology seriously. The assumed superiority in military prowess of the white races was soon revealed to be a hollow boast. As MacArthur stated to the Advisory War Council on 26 March 1942, the Japanese had provided an object lesson in the successful cooperation of their three services. The navy, land and

air forces had worked as one machine and he had been greatly impressed by their complete coordination. The Japanese were formidable fighters.

This unanimity at the level of supreme command of the Imperial Army and Navy was short-lived. The success of their Stage One endeavours led the Japanese to a hastily devised Stage Two, which attempted to extend and stabilise the boundaries of the empire. The IJN had too few resources to defend this border while conserving the Combined Fleet for the decisive battle that would eliminate the US Pacific Fleet. The rebuff at Coral Sea and the defeat at Midway left Stage Two in jeopardy.

The outcomes from confrontations with Japanese forces in the first year of the Pacific War were bitter for the RAN. *Perth* and *Yarra* had been lost in the fall of the Malay Barrier, *Canberra* had gone at Savo Island, and the stranding of *Voyager* and *Armidale's* sinking capped a sorry year. That all had fought bravely was little consolation for a navy hard-pressed on all fronts, with little prospect of its more complex ships being replaced. The RAN order of battle in the Pacific was now reduced to one heavy and two light cruisers, one modern destroyer and three WWI veterans, although the armed merchant cruisers were being converted to landing ships and a steady stream of corvettes was becoming available for service.[289] The result was a serious diminution of the RAN's strategic weight that the absence of *Canberra* and *Perth* (and *Sydney,* sunk in 1941) represented, and difficulties for the RAN caused by the loss of precious experienced manpower.

The first shaky efforts at coalition warfare in the Pacific and the blooding of the USN took place in 1942. The intransigence of US Army and Navy, which produced effects like the CB/FRUMEL split, had its ramifications in operations such as Coral Sea and Savo Island, where reconnaissance and intelligence assets operating under separate commands had difficulty coordinating their reporting. This was one lesson never satisfactorily incorporated into the US command chain. One positive outcome was that the operational intelligence systems created by the coalition of nations and services were extensive and largely effective. For the Australians, the sound foundations laid before the war were of great assistance in getting the new SWPA Allied intelligence organisation on its feet quickly, and in ensuring that Australians retained key roles not allowed them at the GHQ level.

Nevertheless, the naval intelligence organisation supporting Allied actions had been severely tested. ABDACOM had been well supported by intelligence, except, perhaps, with information on Japanese tactics and the effectiveness of IJN weaponry. The Battle of the Coral Sea was fought because of intelligence, which revealed the Japanese intentions and plans. Human and systemic intelligence errors, together with inexperience at all levels, had contributed to the debacle at Savo Island. The appearance of Japanese torpedo bombers off Timor was a surprise, but circumstances dictated that Operation HAMBURGER proceed, even had this new threat been identified.

Overall, the intelligence made available to RAN commanders was relatively accurate and largely timely, and the intelligence organisations performed better than in the first phase of the war against Germany and Italy. If the intelligence jigsaws presented to operational commanders were relatively complete, they were also confusing and capable of interpretation in several ways. It would be the task of Allied intelligence agencies, now gaining in experience and capability, to dispel that ambiguity in future clashes with the Japanese.

For Australia, the realities of operating under foreign (as opposed to British) command presented some problems for the Army, severe difficulties for the RAAF, but few for the RAN once both navies had absorbed the lessons of defeats like Savo Island.[290] As a relatively small component of a larger maritime force, the RAN had neither the opportunity nor reason to maintain any semblance of independence. This was to establish a trend and tradition that would stand the RAN in good stead in the decades to come.
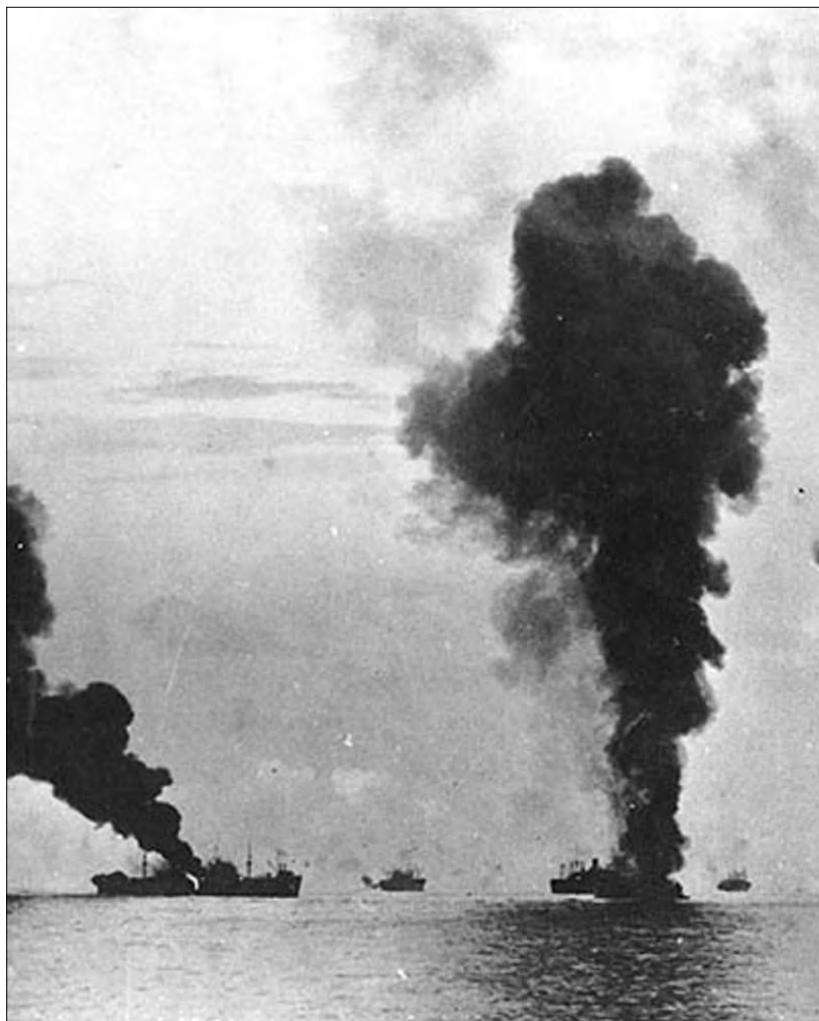
USS *George F. Elliot* burning off Guadalcanal, 8 August 1942

# 4. Taking the Offensive, 1942—45

Well before HMAS *Armidale* had reached her final resting place, the Japanese were on the defensive. They continued to fight fiercely in the Solomons and to extact a price for every Allied advance, but the Battle of Midway had put paid to the Stage Two strategy for the IJN. On land the IJA had been turned back from Port Moresby and had failed to capture Milne Bay. Allied commanders still had to be wary of the air and naval power in Rabaul and from Truk, as well as the IJN submarine threat, but planning was underway to push the Japanese back from their Stage One gains.

This task called for an expanded form of amphibious warfare. In 1942 that was a military novelty which would become routine in the SWPA by 1945, but it required new types of ships, new skills and different employment for naval forces. It relied on sea control to chart and survey the landing areas, get the troops to the landing beaches, provide them with pre- and post-landing fire support, and resupply them. These operations would occupy the bulk of the RAN for the remainder of the war – not glamorous work but essential. The professional manner in which these tasks were executed contributed to the USN's developing trust in their RAN allies.

These operations also called for intelligence of a very high order, since GHQ SWPA wanted to strike where the enemy was least prepared, leapfrogging strongpoints to capture or construct airfields from which the Japanese could be harried, and cut them off from relief from other garrisons. During 1943, it was intelligence that would make up for Allied naval inferiority along the New Guinea battlefront. The weak link in the chain was always the supply lines from Australian ports to the forward areas because of a shortage of shipping to carry the supplies and escorts to protect them.

This heightened awareness of the importance of intelligence led to the development of organisations, skills and networks that would materially assist Allied success, and would also form the basis of intelligence cooperation in the post-war era. Australians were deeply involved in all intelligence activities in SWPA, and a core of far-sighted officers ensured that an Australian ability to contribute to and interact with Allied intelligence networks emerged from the defeat of Japan.

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Map 9, taken from Lundstrom's *The First South Pacific Campaign*, depicts the front lines reached in Stage One and the proposed extensions in Stage Two by Japan. However, Japan's Stage Two ambitions had been nullified by the successful application of maritime power by the Allies, principally the USN. The growing Allied industrial production made two things clear for Japan: it would lose a war of attrition and it could not hold its empire by military means.[291]

It was also becoming clear that the Allies were not interested in any negotiated settlement that left Japan's Stage One boundaries intact. IJN strategists still favoured the 'decisive battle' as a means of seriously weakening the strength and will to fight of the USN, while the Solomons campaign, with the active involvement of Admiral Yamamoto, continued to decimate both Japanese and US fleets.[292] The IJN often delivered sharp lessons to its adversaries, but the material and tactical advantage was shifting towards the Allies, who were able to replace losses in ships and aircraft faster than the Japanese.

Steady erosion of its position in the Solomons forced the IJN to divert staff attention and military resources from potentially more effective campaigns, such as submarine and surface raids on Allied shipping, and defence of Japan's own logistic convoys – and it would eventually cost Yamamoto his life.[293] The IJA intended to resist tenaciously any Allied advances through the Melanesian chain and into New Guinea, but it began to encounter increasing difficulty in reinforcing and logistically supporting its garrisons. The IJA and IJN continued to devise ingenious and sometimes successful solutions to these difficulties – such as the 'Tokyo Express', the name the Allies gave to the IJN's resupply by destroyers in the Solomons. These operations took place at high speed and invariably at night, with men delivered in barges and equipment and stores in drums dumped from the decks of the destroyers, some of which would float to shore and be retrieved. But these measures could not counter for long the growing weight and power of the Allied air forces, more relevant Allied naval tactics, and the more effective employment of Allied submarines. These problems were compounded for the Japanese when MacArthur began to exploit the flexibility of amphibious assault to bypass their strongpoints and sever the land, sea and air supply routes to the garrisons thus isolated.

For Australia and the RAN, these strategic developments introduced new issues. As the mass of Allied forces available in the Pacific continued to grow, the relative size of the Australian contribution diminished. Although a new destroyer joined the squadron in late 1942 (making a total of four available) and a second heavy cruiser arrived in early 1943, and the numbers of frigates and corvettes continued to increase, these were minuscule increases set against the enormous growth in the size and hitting power of the USN.[294] Although the Australian Army retained some semblance of a distinct identity; the fleet and air force were subsumed into larger US-led formations. As well, by 1944 Australia had reached the limits of the military and civilian manpower it had
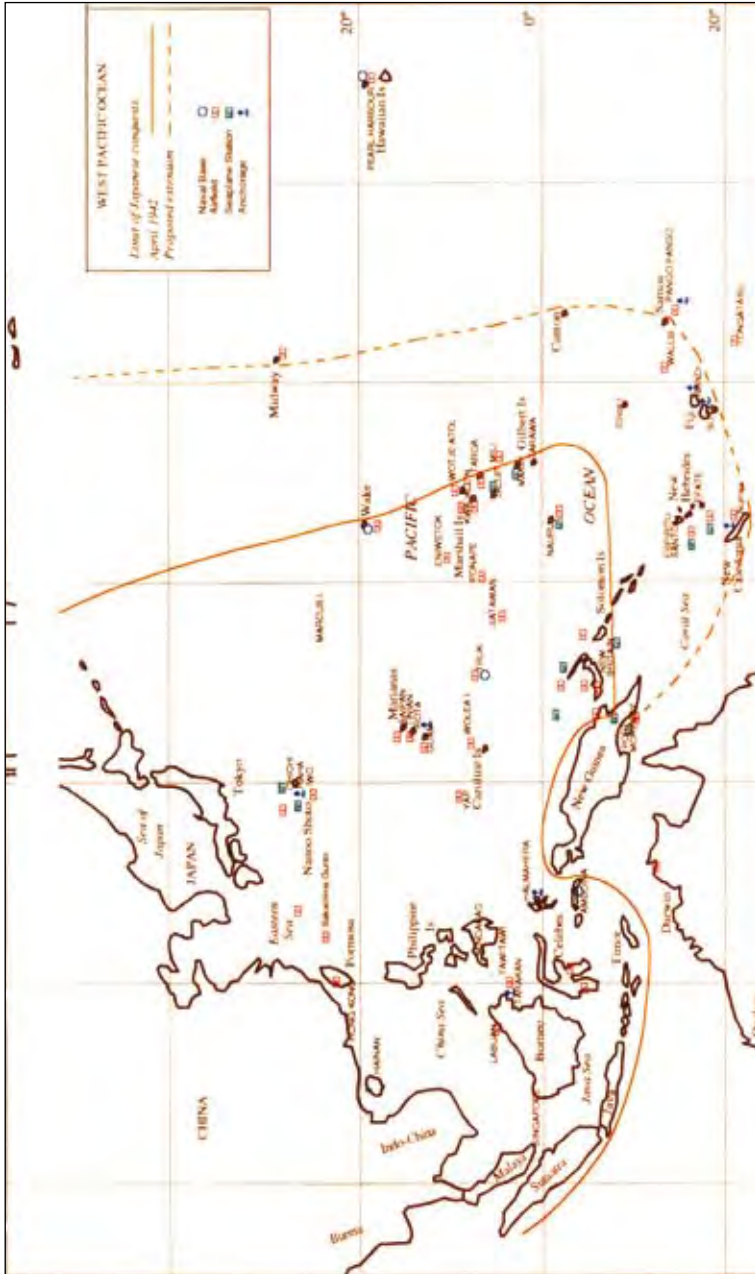
Map 9 - Limits of Japanese Expansion, 1942

to contribute to the front-line war effort.[295] This was not inconsiderable, but, in many fields it was soon overshadowed by the Americans, and later by the British.

Each Allied advance removed GHQ SWPA further from the government in Canberra: by July 1942 it was already 1200 miles north of the Defence establishment in Melbourne. As the fighting moved north, the southern reaches of the SWPA became, in some respects, a military backwater, although there were still important operational tasks to be performed in support of the Allied advance. These involved devolution of command authority from CNS to subordinate commanders and their staffs, a process that was to produce some patchy results.

The campaigns selected for this chapter demonstrate a comparatively greater sophistication in operations by RAN commanders, usually as discrete commands within an Allied force. They also show that inter-Service cooperation had not reached the same level of sophistication, despite clear evidence from prior campaigning that this aspect of operations required more effort on the part of all concerned.

The return of the Australian divisions from the Middle East in 1942 did not mean that Australian forces were ranged exclusively against the Japanese. The RAAF's enormous and costly contribution to the air war on Germany is probably well-known, thanks to the recent restoration of the Lancaster bomber 'G for George' at the Australian War Memorial. Less well-known is that a significant proportion of the RAN order of battle continued to fight in Mediterranean, European, Atlantic and Indian Ocean theatres until the final stages of the war.[296] This point is made here because RAN operations conducted against the King's enemies outside the Pacific theatre would be equally worthy of consideration in this study if space permitted.

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In the SWPA, General MacArthur commanded naval forces through CANF. This did not sit well with Admiral King, who exercised an independent mind in devising ways to restrict MacArthur's control of 'his' ships. In March 1943, the position of Commander Allied Naval Forces SWPA was replaced by Commander 7th Fleet (C7F) as part of USN's 'numbered fleet' concept. However, the 7th Fleet and its components, unlike the 3rd and 5th Fleets, were not part of the US Pacific Fleet. As well, they were not controlled by Admiral Nimitz, although Admiral King was responsible for assigning units to the command.[297] This perpetuated the division between 'MacArthur's Navy' and the main body of the Allied force. The demarcation of theatres of operations agreed by the CCS is shown at Map 10.

The intelligence connotations of this split are interesting. The 7th Fleet operational commanders drew intelligence (as had the predecessor organisation) from two distinct sources. The first was GHQ SWPA, but this was principally concerned with air and land intelligence, even though the RAN Coastwatchers were part of the Allied Intelligence

Map 10 - South West Pacific Area, 1942

Bureau (AIB) and the COIC retained a strong RAN component in its manning. The second source was the USN's own intelligence centres, including the FRUMEL operation in Melbourne.[298] The anguished post-war complaints of MacArthur's intelligence chief, General Willoughby, suggested that these two sources did not cooperate to produce the tailored product that subordinate commanders required, although there seem to have been few complaints from the field. One concludes that the deep antipathy between the US Army and Navy Intelligence and Sigint establishments at superior headquarters levels was largely bridged by pragmatic considerations at the operational level.

CNS continued to exercise command authority on local naval matters, especially trade protection. This was formalised by his establishment as Commander South West Pacific Sea Frontiers Command (CSWPSF) on 16 March 1943, with responsibility for 'the safe conduct and routing of all coastal shipping, shipping from contiguous areas, and routine shipping in support of military operations'.[299] CSWPSF discharged his detailed duties through the NOICs in key ports, who had operational control of escort forces assigned, and were responsible for the assembly and dispatch of convoys and the coordination of their protection in conjunction with the associated RAAF Air Operations Centres. NOICs were Allied commanders, with Australian, French, Dutch, US and, occasionally, British assets assigned to them.

All SWPA naval forces, including those assigned to NOICs for escort work, came under CANF, and then C7F. The cruisers and their supporting destroyers – usually a mixture of USN and RAN ships – operated as TF 44 and later as TF 74. In June 1943 amphibious, escort, hydrographic and minesweeping forces were also reorganised to reflect their supporting roles in the amphibious assaults that were being planned. RAN officers retained a considerable degree of freedom and control over their own forces in these arrangements, although generally they operated as elements of Allied forces in company with US ships.[300]

Under the overall command of a US admiral, the 7th Fleet appears not to have engaged in the kind of xenophobic practices that had marked the first few months of US-Australian naval cooperation.[301] The senior officer, regardless of nationality, was given the task of commanding a force. For some time after his assumption of command, General MacArthur and his USAAF subordinates had to command forces in which the major proportion of the fighting strength was Australian, something not reflected in the actualities of the overwhelmingly American chain of command and how it operated. The situation for Admirals Leary and Carpender was somewhat similar, on paper. The mobility feature of seapower made it possible for the USN to massively augment CANF's limited resources as the strategic situation dictated by moving forces into the SWPA theatre, as happened at Coral Sea, for example.

For the RAN there was no alternative to accepting USN command. The British had decamped, first to Ceylon (Sri Lanka) and then to Kenya, taking with them the strategic command system on which the RAN had depended. USN commanders at GHQ SWPA

treated the rump of the British system, in the form of CNS and his Australia Station responsibilities, with consideration and respect. In return, the RAN put aside any misgivings about the USN and its warfighting capabilities, and adopted an operational *modus vivendi* that engendered USN confidence. This transition was made easier by the realisation that everybody had to learn how to fight the IJN from first principles, and the fact that the majority of USN ships and personnel serving with the 7th Fleet were manned by reservists rather than career officers. Neither side stood on ceremony in this mutual learning experience.

Australians commanded all the operations examined in the remainder of this chapter, but they were sanctioned by GHQ SWPA and planned and conducted with the assistance of Australia's allies. Maritime operations in the SWPA had to be 'combined', and the results appear to have proven that close cooperation between Allies could work, if national attitudes and posturing allowed.

On 13 June 1944, at a ceremony at Manus Island, Rear Admiral Crutchley, RN, hauled down his flag as RACAS, and in its place Commodore Collins, RAN, hoisted his broad pennant as Commodore Commanding Australian Squadron (CCAS). This was an important milestone for the command and control of the RAN. Collins was the first graduate of the Royal Australian Naval College to command the squadron: it had taken him just 31 years to reach this stage in his career, and the same time had elapsed since the Australian Fleet Unit had first steamed through Sydney Heads.

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Importantly for Australia, the American assumption of command at the front was not mimicked in the sphere of intelligence. The rapid seizure of opportunities in the first year of the war paid dividends as the Australian intelligence organisations grew in size, capability and stature and their contribution to the Allied cause increased. While the development of these organisations is traced in more detail in Appendix 1, a few general observations are appropriate at this juncture.

GHQ's COIC, wherever it was located, retained its strong Australian component, including its directors. The same is true of CB in Brisbane, where Australians occupied key command positions, despite the increasing size of the US contribution – the latter most noticeable in the fields of interpretation and translation.[302] CB's field units remained principally Australian, and by the end of the war these were serving in all the SWPA theatre battlefronts. FRUMEL maintained its joint character until the US detachment was progressively withdrawn from the end of 1944, when it became a wholly RAN organisation. The Australian Army continued to decode diplomatic traffic throughout the war.

At the maritime operational level the flow of intelligence appears to have been even-handed. While there is no direct evidence that Commander Task Force (CTF) 44/74

received ULTRA intelligence, he was certainly on the distribution of the regular intelligence bulletins disseminated by CANF/C7F and CINCPAC.[303] He and his ships were included in the distribution list for operations plans and the supporting signalled intelligence updates, without any obvious attempts to 'sanitise' them. This does not mean that all US material was automatically passed to Australian naval commanders, but there is nothing to indicate that, ULTRA aside, any information necessary to the successful conduct of their missions was withheld, at least not deliberately. At the same time, DNI Long instructed RAN intelligence officers, 'to report immediately by signal or courier (according to the urgency of the message) to the appropriate authority, any information concerning operations'.[304]

This cooperative attitude towards the collection and pooling of intelligence gave MacArthur a powerful adjunct to his military power, which continued to develop relatively slowly. The selected incidents discussed below will demonstrate that intelligence support was a significant factor in the majority of operations undertaken under RAN auspices.

# Defence of Australian East Coast Convoys, 1942—44

Many commentators erroneously, but apparently seriously, equate the successful application of naval power with sea battles fought and numbers of enemy ships sunk. Most often, and far less dramatically, maritime warfare involves the struggle to use the sea for one's own purposes while defending such use against an enemy, sometimes in long campaigns in which there may not ever be a major encounter between opposing forces.[305] The outstanding success story for the RAN in WWII was the support of military operations in Papua and New Guinea and beyond through the defence of east coast convoys, but the effort required of operations and intelligence staffs was enormous. More warships under Australian control were engaged than at any time before or since.[306] During the time of maximum danger, hundreds of thousands of Allied troops and their equipment were transported to New Guinea without the loss of a single soldier, and more than a million tons of stores were also delivered.[307]

The attack on Sydney Harbour by Japanese midget submarines on the night of 31 May 1942 is widely known. Far less well-known is the war that was fought against the IJN's submarine arm off the Australian east coast in 1942 and 1943. The task of the RAN and RAAF was to protect those vital convoys which kept Australian industry going, and which provided MacArthur's forces with the men and material to sustain their northward offensives.

The IJN's strategic defeat in the Coral Sea postponed the capture of Port Moresby, which was to have been used as a base for denying the north of Australia to any Allied military build-up. Similarly, the Allied defence of Guadalcanal denied Japan air bases

across the main lines of sea communications between the United States and Australia. While the fighting raged, Allied offensive capabilities based in Australia were growing. The obvious weapon for the IJN to apply to the problem of slowing this build-up was its submarine force. It had large, fast and well-armed boats with the endurance for the long-distance patrols required in the Pacific. Submarine crews were an elite force, and the prestige of the Sixth (submarine) Fleet was high. Moreover, Japanese submarine torpedoes were superior to any similar Allied weapon, and had been well proven in exercises before the war. If they had been deployed effectively, the 62 boats with which the IJN started the war could have defeated the ill-prepared and shorthanded Allied ASW effort in the SWPA.[308]

However, and fortunately for the Allies, the Japanese never engaged in the kind of strategic warfare against Allied economic targets that their Axis partners in the *Kriegsmarine* waged.[309] This was a direct outcome of the Japanese strategic concept of 'decisive battle'. IJN submarines were first and foremost fleet units, with the roles of intelligence collection, scouting and harassment of USN major units to weaken and demoralise the Americans before they encountered the might of the Combined Fleet.[310]

This doctrine had three important consequences for Allied ASW forces. The first was that the IJN admirals regarded their boats as high-value units and were not keen that they should be risked in attacking merchant ships.[311] Second, relatively few submarines could be sent on extended anti-shipping patrols because of the need to have them available in case an occasion for decisive battle arose. Third, and as a direct result of the first two, Japanese submarine captains were relatively cautious and unskilled in their anti-commerce task. Nevertheless, in the Allied condition of 1942 following the loss of the Malay Barrier, and while the war of attrition raged in the Solomons, Japanese submarines were a serious and urgent threat to shipping off the Australian east coast.[312] Map 11, an amalgam of information from several sources prepared by the author, depicts the submarine attacks recorded on shipping off the Australian east coast in 1942 and 1943.

Responsibility for protecting shipping in the SWPA resided with CSWPSF, who directed the operation of the convoy system, assigned escorts and requested cooperative air cover from Commander Allied Air Forces. Importantly, as CNS, he also fulfilled the role of 'raising, training and maintaining' the Australian contribution to the ASW escort force, and in 1942 this was no sinecure. The principal problem was a major shortage of escorts. There were enormous calls on the few ships available to support Allied troops fighting in Papua, New Guinea and Timor, to convoy coastal shipping and to participate in Allied offensive operations.[313] The Australian shipbuilding program was just beginning to show results, the United States similarly had yet to reap the benefits of its massive industrial mobilisation, and there was no possibility of reinforcement from the hard-pressed British. Shipments of vital electronic systems
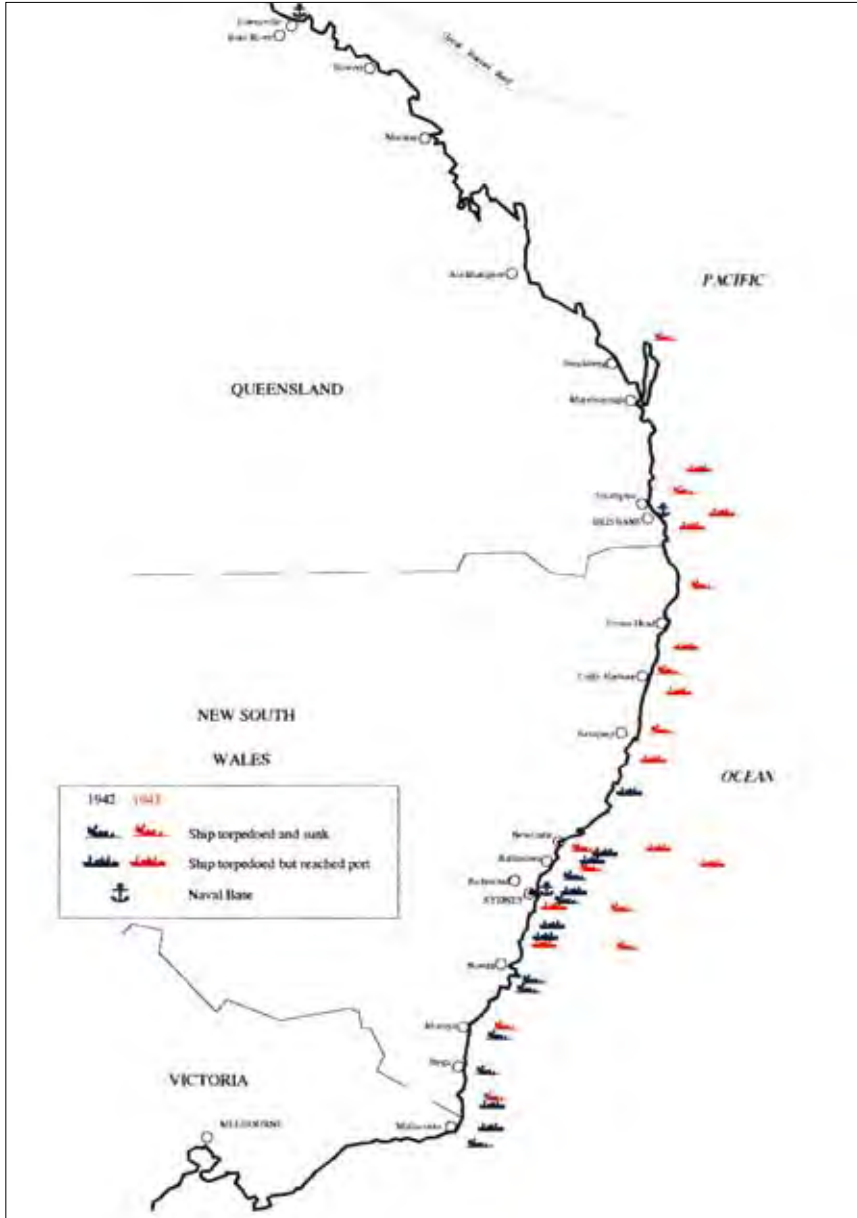
Map 11 - Japanese Submarine Attacks, 1942-43

for new construction escorts, such as sonars from the United Kingdom, were being delayed or lost to enemy action, and there was little effective at-sea practical ASW training capability in Australia.[314] In the Allied Air Forces order of battle there were insufficient aircraft and aircrew to provide the necessary level of ASW cooperation and deterrent patrols. Finally, as has been observed previously, General MacArthur's SWPA was of low priority to CCS Governments when it came to the strengthening of its maritime resources.

Fortunately, the Allied forces had some putative advantages in this battle. Besides the IJN doctrinal and operational experience limitations described previously, the size of the Japanese boats made them very slow in submerging and, while underwater, they presented excellent large sonar targets.[315] Their safe diving depth was relatively shallow. The breadth of the battlefield seized by the IJN diluted the concentration of submarines to levels well below those faced by Allied forces in the Atlantic, and the generally better sonar conditions enjoyed in the Pacific made detection of submarines easier. However, this observation did not apply to the waters contiguous to the Australian east coast, where sonar conditions were (and are) difficult. For the RAN, the large numbers of their officers and sailors who had gained experience in battling German U-boats were potentially a most valuable resource, but few of these personnel returned to the RAN before the IJN submarine attacks had dwindled.[316]

Besides this strategic intelligence, in the early stages of the campaign there appears to have been little substantive knowledge of the IJN's submarine force. However, by the second and subsequent years of the war against Japan this had changed. ONI Intelligence Report 65–43, *Japanese Submarines,* of 18 May 1943 contained a great deal of information on the characteristics of the boats, allegedly based on captured documents. In September 1943 ONI produced Intelligence Report 84–43, *General Characteristics of Japanese Submarines*, which dealt with submarine and weapons tactics. 'Various sources' were credited with this information, although the security warning strongly suggested that Sigint was the basis of some of the data. Both confidential reports were forwarded to the RAN via the Australian Joint Staff in Washington. In 1944 Allied Air Forces SWPA Intelligence Summary 175 of 22 January consolidated knowledge about IJN submarines from operational experience, while in June the British Eastern Fleet issued Intelligence Summary JF/1120 concerning *Japanese U-boats.*[317] This contained data from interrogations of German U-boat POWs from a boat that had been based with the Japanese in Penang.

Sigint was of assistance. The IJN submarine force used a separate code, JN-4, which was broken in June 1942, to report the routine movements of its boats, and these decrypts were made available to CSWPSF. The Admiralty DF network, supplemented by a local chain of RAAF DF sites established along the east coast, was frequently able to detect and fix submarines signalling their post-attack report, as required by IJN doctrine. Had this information been available regularly, CSWPSF and his NOICs would have had

a good idea of their enemy's presence and operating areas. However, transmissions were not always detected, intercepts not always decrypted in time for a counter-attack, the quality of DF fixes varied widely, and imperfections in the command, control and communications system were soon revealed.[318]

Another source of analysed intelligence came from the Admiralty, in the continuous stream of tactical lessons from the Battle of the Atlantic. These were either promulgated directly to SWPA units or in 'A/S [antisubmarine] School Confidential Instructions', which were issued to RAN ships from February 1941.[319] Later they were incorporated in GHQ Standard Operating Procedures (SOPs). As well, RAN ships had the benefit of WIR (discussed in Chapter 1) and the Admiralty publications CB3043, *Defence of Merchant Shipping*, and CB3044, *Manual of Anti-submarine Warfare*. From 1943, CSWPSF staff and NOICs used the British-United States Routing Agreement to defensively route merchant shipping to bypass enemy submarine concentrations.

The initial stages of the campaign began slowly. The IJN, lacking any other effective form of intelligence-gathering on its new target area, despatched *I-25* on a reconnaissance patrol through the Coral Sea, down the east coast of the Australian mainland, around Tasmania and thence to the North Island of New Zealand in February–March 1942.[320] This was in preparation for the midget submarine campaign, involving five large submarines and three midgets, which culminated in the unsuccessful attack on Sydney Harbour on the night of 31 May–1 June. The first blows were struck by *I-21*, with the sinking of two merchant ships off New Caledonia on 5 and 7 May, followed by an attack by *I-19* on a ship off Newcastle on 16 May. However, it was not until after the Sydney attack, and six subsequent attacks on shipping in the vicinity of Sydney, that CSWPSF suspended sailings and instituted a convoy system off the east coast on 4 June. There is no intelligence explanation for this delay in responding to evidence. By 30 May CANF and CSWPSF had the evidence of the attack of 16 May, DF fixes on submarines in the vicinity of Sydney, Sigint confirmation of IJN submarine interest in Sydney, and the presence of aircraft-carrying boats in the area on which to base their appreciations.[321]

Despite a continuing stream of intelligence and DF reports on some of the IJN submarines lingering in the Sydney area, there were no successful engagements, although at the time claims of up to 'six or seven' submarines destroyed were made.[322] These were subsequently disproved by Sigint decryptions from the 'victims'. The failure to intercept, let alone attack and sink, any of the five large submarines which had been loitering near Australia's largest naval base for between six and nine days, and one of which shelled Sydney and Newcastle on the night of 8 June, is an accurate reflection of the ASW capabilities of the RAN and RAAF, and of the system which directed their operations at the time.

After a successful attack on a convoy straggler north of Sydney on 12 June, the Japanese flotilla retired and, after six weeks of ASW inactivity, CSWPSF ceased convoy operations

on 15 July.[323] The ASW defences were thus not prepared for the onslaught of the second wave of attacks, which opened with a sinking off Jervis Bay on 20 July. Intelligence had not warned of this, although subsequent reports and HFDF intercepts revealed the presence of three submarines off the coast.[324] They concentrated their attacks in the area between Gabo Island and Newcastle, a route vital to Australia's industrial production. However, only three ships were sunk, while seven were damaged.[325] The RAAF claimed a kill of *I-11* off Gabo Island but, although a good attack was delivered and damage inflicted, the boat survived.

On 29 August, the RAN had a second confirmed kill of an IJN boat, this time in the Gulf of Papua. After its charge had been torpedoed, an escorting destroyer sank *RO-33*, one of the smaller and handier boats in the IJN fleet. Intelligence gave no forewarning of the presence of this submarine. Earlier that month one of the southern trio of I-class boats, *I-32*, on her way to Surabaya south about, had attacked a steamer with gunfire in the western Great Australian Bight, without success. That marked the virtual end of the Japanese campaign for 1942, except for a fruitless patrol by two boats into the Arafura Sea and Timor Sea in November. By that time it was apparent from Sigint that the major concern of the Sixth Fleet was becoming support and resupply of Army forces in Guadalcanal and eastern New Guinea. From December on, the CINCPAC Bulletins Daily Reviews, bearing the ULTRA classification and distributed to CNS among other senior officers, told a tale of increasing diversion of submarines to these tasks.[326]



The Japanese submarine *I-16*

There was, however, no indication in this traffic of the impending fresh wave of attacks on east coast shipping, which was launched between 17 January and 10 February 1943. Released from their resupply tasks by the Japanese withdrawal from the Solomons, over the next five months a succession of nine submarines was to sink 13 Allied ships along the east coast.[327] Many other attacks were unsuccessful, partly because the IJN faced a better-organised and trained defence.[328] The reaction by air assets to submarine sightings had much improved, the coastal HFDF network was becoming more effective, and two retaliatory attacks by the RAAF would probably have resulted in kills, except for equipment failure at the critical moment. Nevertheless, there were still organisational, equipment and training deficiencies, including the continuing problem of effective communications between ships and aircraft.[329] DF fixes, in particular, were taking too long to reach Air Operations Rooms for effective investigation to occur. This particular difficulty was dealt with by putting Australian and New Zealand authorities on the DF 'flash' network operated by the USN out of Hawaii. However, for this wave of Sixth Fleet attacks, Sigint supplied no specific warning until 12 February, when two submarines were reported '100–200 miles off Sydney'.[330]

Nonetheless, intelligence on the Japanese force was generally good. A report produced by the Air Intelligence Officer in Brisbane on 1 June 1943 demonstrated both an appreciation of the nature of the Japanese assault – acknowledging that these occurred in waves – and the normal IJN cycle of submarine patrols, but also some ignorance of the fact that the IJN units concerned were in three waves.[331] Sources upon which the report was based are identified as physical attacks, sonar contacts, radar detections by patrol aircraft, DF fixes, visual sightings from ship and shore, 'estimated positions' provided by ACNB, and photo reconnaissance of Rabaul harbour. This is interesting, and puzzling. Air Headquarters Brisbane would not have been a recipient of ULTRA intelligence, but one would have expected some broad hints (disguised as 'estimated positions' or 'DF fixes') to have come from HQ Allied Air Forces in the same city. Alternatively, these could have been cycled through CSWPSF. But there is little in the squadron leader's report to suggest anything other than the application of intellectual deduction, based on largely physical evidence of the IJN presence and some fairly inaccurate DF fixes.[332]

A conjecture that might be drawn from this report is that the submarine attacks in SWPA did not rate priority in Sigint watch lists at the time.[333] This is at odds with the continuous stream of Sigint on the Sixth Fleet that appears in the CINCPAC bulletins, and with the extreme pressure on shipping in SWPA engendered by MacArthur's planned assaults on Kiriwina and Woodlark Islands, originally scheduled for 1 June 1943. Another and more likely explanation is that Sigint 'guided' the air patrols organised by the Air Operations Room, and that the considerable number of radar contacts generated represents the successful use of this ploy. The failure to convert these detections into successful prosecutions, despite the effort expended, may simply demonstrate the poor state of the ASW capacity of the forces involved.[334]

The Allies strenuously sought improvements – many of which demonstrate the application of intelligence – to this performance. At the organisational level, the ASW Division, staffed with RAN, USN and RAAF personnel, was established in June 1943 within Navy Office to be the single SWPA authority on ASW and to coordinate the effort against the Japanese. Tactical instructions were revamped to include experience gained from previous SWPA operations, and the tactical lessons from Admiralty on Atlantic experiences with the U-boat force.[335] Material improvements were also made, most notably the fitting of the radar Type 272 in the Australian corvettes. This gave them an average range of detection of a submarine conning tower, between 5000 and 7000 metres, which was outside the recommended range for IJN commanders to launch their torpedoes.

However, the Japanese had abandoned their attacks on Australian shipping by July 1943, and the organisational, tactical and material improvements were never seriously tested. Convoying south of Newcastle was suspended in November 1943, and south of Townsville in February 1944.[336] Ironically, joint RAN–USN ASW procedures were just being issued. On 2 July SWPA GHQ issued a new standard operating procedure – SOP 19 – *Method of Reporting Submarine Contacts and Suggested Tactics*. At the same time a system of ASW zones of probability was introduced.[337] September 1944 saw a new GHQ manual, SOP 25, *Anti-submarine Warfare*. By 10 October 1944 most of the Australia Station was categorised as ASW Probability Class C, with the exception of the Fremantle area, which remained Class A, until reverting to Class B on 20 March 1945. The reason for this was undoubtedly the patrol between November 1944 and February 1945 of the German *U-862* from Tanjong Priok around Australia and New Zealand, and thence to Singapore.[338]

While the war had moved on from Australian waters, it continued further north. As MacArthur's troops leapfrogged Japanese garrisons along the north coast of New Guinea, CSWPSF's responsibilities followed them. On 29 October CNS Australia was given responsibility for protecting shipping as far north as Hollandia. Nor was the submarine threat totally vanquished. On 3 October USS *Shelton* was torpedoed near that port, and a possible submarine sighting nearby was made on 2 December.[339] By the war's end CSWPSF was responsible for merchant shipping from Tasmania to Borneo, but the only attack by a submarine in Australian waters in 1945 was by the German *U-862* on the unescorted *Peter Silvester*, 800nm southwest of Fremantle.

The IJN attempt to disrupt Australian industry and cripple the support of Allied operations in SWPA by attacking the sea lines of communications had failed.[340] Their submarines had sunk 30 ships of 150,984 gross tons and caused 654 deaths, including those lost in the sinking of the Australian hospital ship *Centaur* in May 1943. They had, however, engaged a significant proportion of the escort forces of the RAN and RAAF and of US ships sent to SWPA, for the loss of only two boats.[341] In IJN eyes, this might have represented a victory of sorts, and they had a point. In 1942 Japanese submarines

inflicted significant losses to major USN units, including two of six carriers sunk and one seriously damaged, and a battleship (one of three in the Pacific Fleet) forced out of action. Chapter 3 has described how the apprehension of submarine attack caused Fletcher to withdraw his carriers from Guadalcanal at a critical point in the assault, and made Mikawa's attack at Savo Island easier.[342]

The potential contribution of intelligence to winning the battle was as great as it proved in the Atlantic. Difficulties apparent in the application of ULTRA information to instructions to the operational forces, and delays in passing DF information to surface and air forces, detracted from the result. The intelligence jigsaw, while not complete, had most of the pieces in place. And again, despite the best intelligence available, a shortage of resources, inadequate practical training and the lack of skilled and experienced personnel resulted in few battle successes. Escorts rarely made sonar contact with the Sixth Fleet submarines and were only able to affect two kills. Yet the outcome of the campaign was significant for the Allies. This is appropriately summarised by naval historian, Professor Alfred Marder, in describing the Battle of the Atlantic:

> Sinking submarines is a bonus, not a necessity…what matters is that the ships deliver cargoes regularly and adequately…Indeed: one can safely go a step further: it really did not matter how many U-Boats the Germans had, if they were forced to keep out of the way and the British and their Allies got their ships with their literally vital cargoes through and without being delayed by fear of attack.[343]

## The Hydrographic War, 1942—45

The operations discussed in this section concern the collection and dissemination of hydrographic and other topographic information to support Allied operations in the SWPA. Throughout the campaigns pushing the front line closer to Japan from 1942 onwards, hydrographic information was a vital component of any maritime commander's operational planning, especially in the poorly charted waters in much of the SWPA, and the RAN's Hydrographic Branch undertook the major part of the work in collecting this information. As evidenced by the small number of primary and secondary sources referred to in this account, the branch's role in the war against Japan has not, in the author's view, attracted sufficient research nor received adequate recognition.

In 1920 the RAN established its hydrographic department and assumed the task of surveying the coasts and adjacent waters of Australia and its territories including Papua and New Guinea, which had been an RN responsibility. First, one survey ship and, from 1925, a second, were engaged in this gargantuan task.[344] Their work was concentrated on a proper charting of the Great Barrier Reef and surveys of important trade routes, using assigned aircraft to assist.[345] Hydrographic work practically ceased

during the Great Depression, RAN hydrographers being distributed among civilian port authorities for survey work so that their skills were not entirely lost.

On 27 April 1933, HMAS *Moresby* recommissioned because of the 'need for urgent strategic surveys in northern waters'.[346] She was employed first in the Arafura Sea, also using aircraft assistance, and in 1936 she surveyed Simpson Harbour in Rabaul, as well as the eastern approaches to China Strait.[347] In 1939 she, with other vessels, surveyed the approaches to Port Moresby, but in December that year *Moresby* was taken off survey work in New Guinea waters and refitted for escort duties because of the pressing need for convoy protection. This curious decision continued in force until November 1940, and was to be bitterly regretted in the years to follow.[348]

In the wake of the collapse of the Malay Barrier, it became evident that hydrographic intelligence on the waters of the island chains to the north of Australia was an essential element if naval operations, and especially coastal resupply and amphibious operations, were to be successfully conducted. The lack of such information provided Australian General Blamey with an opportunity to embarrass the Allied naval forces when the Milne Bay and Buna – Gona campaigns were being planned in mid-1942. The Allied Land Force Commander was moved to berate the Allied navies for their reluctance to operate in waters apparently used by the IJN.[349] In fact, the Japanese were just as wary of the waters over which Blamey wished to move his forces, and their logistics, and the Allies were desperately short of ships of any kind. But something had to be done to support the Army, and Operation LILLIPUT, a convoy operation up the northeast coast of New Guinea employing small vessels, was the result.

The task of defining a safe navigational passage from Milne Bay north to Oro Bay, near Buna, for the small ships of the LILLIPUT convoys was undertaken by a mixed Army-Navy 'Ferdinand' unit under the command of NOIC Port Moresby. Brought into existence on 29 September 1942, over the next three and a half months the unit found and marked a safe passage, surveyed Porlock Harbour, reconnoitered the hinterland and piloted ships from Milne Bay. The survey vessels were HMAS *Paluma* and the launch *Ainauia.* The procedure used was the opposite of the conventional hydrographic task; the surveyors had to find where the reefs and shoals were not, rather that determining their exact position and extent.[350] Resupply of Allied troops from Milne Bay to Oro Bay was made possible by this charting of a 200nm-long tortuous channel surveyed by RAN ships while under the threat of daily bomber attack.[351]

Map 12, constructed by the author from records, illustrates the areas of critical hydrographic importance to the Allies in their advance up the New Guinea coast.

However, surveying for an amphibious assault required a different order of accuracy. A safe passage to the Amphibious Operations Area had to be found, the landing beaches and their approaches had to be surveyed, and details such as the tide, current, nature of the bottom, and the nature and gradients of the beaches determined. Enemy attempts

Map 12 - Areas of Major Hydrographic Concern, 1942–45

to prevent landings by positioning underwater obstructions also had to be identified and marked for removal prior to the landing. In most cases, these operations had to be conducted in sight of an enemy-held coast, and with the constant threat of air and coastal battery attack on the surveying vessels.[352]

Extensive use was made of the photo-reconnaissance technique pioneered by the RAN Hydrographic Department. While photographic interpretation could provide accurate landform information and an indication of the extent of shallows and hazards in waters close to the beach, the technique was ineffective in waters deeper than a few metres and could not provide accurate information on the nature of the beach itself. Deeper waters had to be surveyed, while a personal inspection of the beaches to provide gradients, firm going for vehicles and machines, and debouchments from the beach was normally required.[353] As the war progressed, aerial photography was steadily supplemented by periscope photography from submarines, while AIB was tasked to make the physical inspections in advance of landings.

Accordingly, the survey and hydrographic force became an integral part of amphibious operations as the war progressed. This required more ships than the Hydrographic Branch possessed, even though it had acquired a number of small civilian craft to augment its capabilities inshore, so the decision was taken to equip some of the Australian Corvettes (AMS) for surveying duties. This was a significant indication of the importance the Allies attached to the hydrographic effort when, as described in the previous section, CSWPSF was crying out for escorts for ASW duties. There were several advantages to this approach, not least that the ships were armed and could provide an element of self-defence; another was that the corvettes were sonar-fitted. Using this sensor, and with their Oropesa mine sweeps set for a minimum depth, check sweeps could be carried out rapidly along routes scheduled to be used for the approaches to an amphibious objective. The first such deployment by HMAS *Whyalla*, in January 1943, fully opened the route from Milne Bay to Oro Bay, thus assisting in the capture of Buna the following month.[354]

On 21 June 1943, the seven RAN survey ships were formed into TG 70.5 to undertake the task of surveying and charting operations for the US 7th Fleet in the SWPA. The Officer Commanding RAN Hydrographic Branch became Commander Task Group (CTG), and was appointed Charting Authority for Allied Naval Forces SWPA. The task group was soon to be joined by 11 USN ships, but the CTG remained an Australian. In the same month, two new AMS specially configured for hydrographic work, HMAS Ships *Shepparton* and *Benalla*, surveyed a route for the landing on Kiriwina Island, the first pre-assault survey in the SWPA. This unopposed landing was used to test theories and to identify areas requiring attention. One such lesson was the need for survey vessels to pilot amphibious forces to their beaches because of 'the meagre navigational facilities of the amphibious craft, the inexperience of the personnel and the incomplete surveys

of certain parts of the area'.[355] It confirmed the soundness of thorough hydrographic preparation, supported by reconnaissance of the landing areas themselves.[356]

In their challenging task, the ships of TG 70.5 were faced by a lack of accurate intelligence. The area into which GHQ SWPA was now projecting Allied power had been a German protectorate until German forces were dislodged by the Australians in 1914, and there were a number of German Admiralty charts of good quality covering the main ports and shipping routes.[357] Prior to the German occupation in the late 19th century, the British ship HMS *Basilisk* had carried out a running coastal survey of the New Guinea coast north from Milne Bay, and there had been an incomplete survey of Milne Bay in 1885–86.[358] But operations were now about to take place off this beaten track. Papua and New Guinea officials with local knowledge could supplement this information, as could the skippers of coasting craft, and Coastwatchers' reports were extensively used to report on Japanese use of areas of interest to the Allies. However useful, these could not supply data of sufficient accuracy to ensure the safe transit of heavily laden assault ships and their support, escort and bombardment forces, and there were doubts expressed about the accuracy of information gained in this way.[359] Even ships of TG 70.5 found safe navigation difficult while operating in these waters: *Whyalla* ran aground in Milne Bay on 16 April 1943, fortunately without damage.

There were also the hazards posed by the enemy. The Allies were not always sure about the nature and location of Japanese defensive positions or the composition and location of enemy minefields. Interest by the Allies in an area, demonstrated by the arrival of survey vessels, could, and frequently did, prompt a Japanese response, often in the form of air attack or fire from coastal artillery. The Japanese soon realised, however, that they should avoid revealing the location of their coastal batteries by firing on the precursor survey vessels so as to preserve their armament for use against the assault forces.[360] In practice, the ships of TG 70.5 had to be prepared for any enemy action, including submarine attack. The intelligence picture improved rapidly for the survey force when it came under the aegis of Rear Admiral Daniel Barbey's 7th Amphibious Force. They received the same intelligence information as other ships and this, in general, was accurate and useful, to the extent that it was available.

The intelligence contributed by the task group was priceless. Charts were the main products, but there were other outcomes. Confidential navigational information to back up the charts began to appear as early as May 1942 with the publication of Australian Hydrographic Publication (AHP) 7, *Navigational Aids in War*, which went through four editions. October 1942 saw AHP1, *Openings in the Great Barrier Reef: Sailing Directions.* Between January and March 1943, three volumes of *Sailing Directions* were published, covering the northeast New Guinea coast and the Solomons area (AHPs 2, 3 and 4). Admiralty tide tables for the SWPA appeared in 1943. *Sailing Directions* for the northwest New Guinea coast, Moluccas and northeast Celebes (AHP 6) was published in June 1944 and reprinted in May 1945.[361]

At a conference in Milne Bay in August 1943, Admiral Barbey revealed GHQ SWPA's program for amphibious landings for the foreseeable future which included the securing of the western end of New Britain and landings as far northwest as Lae. This triggered a busy survey program, not all of which could be undertaken well in advance. As one example, for the landings at Cape Gloucester on 26 December 1943, *Shepparton* and one survey motor boat completed the survey of the approaches in the single day of 20 December, and completed the chartwork on the return voyage to Langemak Bay, near Lae. They landed this work on 21 December for rapid printing, and all ships for the operation had their charts in time for sailing on 24 and 25 December.[362]

MacArthur's audacious leapfrogging of Japanese positions to take Hollandia in northwest New Guinea required a great deal of hydrographic and topographical intelligence. Although the waters had been well surveyed by the Dutch, there was insufficient information on the beaches in Humbolt and Tanamerah Bays, the sites for the assaults. With pre-war survey resources limited worldwide, charting authorities naturally concentrated their efforts on principal ports and their approaches, and the routes most often taken between them. Amphibious landings, by their very nature, took place over beaches, which were sea regions not given great importance in commercial shipping operations and therefore not generally adequately charted.

Aerial photography could not provide the necessary information, and a month before the landings a submarine was sent to reconnoitre and photograph the shoreline around Hollandia. She also landed an AIB party to assess the beach suitabilities, identify Japanese defences and check on debouchment routes from the beachhead. Unfortunately, this mission was betrayed by the local population, with the result that the intelligence available on beach conditions remained poor.[363] The consequences of being unable to clear accumulated stores and munitions from the beachhead because of inadequate debouchment paths resulted in the loss of a huge quantity of stores and some loss of life when Japanese aircraft attacked the beach dump at Humbolt Bay on 23 and 24 April.

The two concluding campaigns in the SWPA, Philippines and Borneo, saw TG 70.5, under different designations, fully engaged. The Hydrographic Force was divided into three task units in August 1944, with the larger, better-armed ships being assigned to Task Unit (TU) 70.5.1 for service in West New Guinea, the Philippines and Borneo. By this time, the force included two of the new RAN River class frigates, HMA Ships *Gascoyne* and *Lachlan.* In the Philippines the force entered an area charted by the United States, but check sweeps and surveys were still required, and the survey ships preceded every landing. In doing this, they repeatedly came under fire from Japanese shore defences and aircraft, including the new kamikaze threat.[364] On 5 January 1945 *Gascoyne* and HMAS *Warrego*, in company with a US destroyer, conducted an attack on two IJN destroyers – a first for the Hydrographic Branch.[365] On 7 February 1945 *Gascoyne* attempted a further distinction for the hydrographers when she detected

and attacked a submarine while on passage from Hollandia to Leyte. Regrettably, poor drill resulted in damage to the frigate from its own depth-charge pattern, and the submarine escaped.[366]

The final campaign of the war in which TG 70.5 vessels were involved was Operation OBOE, the series of landings in Borneo – at Tarakan (1 May), Labuan (10 June) and Balikpapan (1 July). In all three, the principal hydrographic concern was the shallowness of the water off the beaches and, in the case of Balikpapan, the existence of anti-landing obstacles deployed by the Dutch before the outbreak of war. In the first instance, planners needed to be sure that the assault craft would not become stranded on mud or sand at some distance from their objectives. Therefore, accurate tidal information, coupled with the state of the sea bottom off the beaches selected, became a determinant in the timing of the assault and the loading of the assault craft. The dreadful precedent that haunted amphibious assault planners was that of Tarawa in November 1943, where the assaulting US Marine force suffered heavily when its assault boats became caught up on coral outcrops well out from the beaches and within easy range of Japanese defences. Lack of adequate information on the tides and poor charts of this isolated atoll were the causes.

At Tarakan, the final outcome, in the form of the intelligence information provided by Admiral Barbey to his force, appears quite comprehensive and includes an extensive list of Japanese defences, gun batteries and radar sites.[367] The commander of the landing force was less complimentary. His concern was the firmness of the mud over which his troops would have to land: could it support a tank or was it armpits deep a few yards off the shore? In the event, the answer turned out to be both. The problem was one that neither the RAN surveyors nor RAAF photo reconnaissance nor AIB expeditions could resolve before the landing.[368]

Hydrographic and topographic intelligence on Labuan was also comprehensive. Extensive use was made of low-level oblique photographs to illustrate beach topography, although they carried the warning that 'reefs are not identified in photographs'.[369] The pre-landing surveys, including check sweeps of the beach approaches and a close inspection of the beaches themselves, were undertaken by a small task unit under the command of HMAS *Lachlan*, beginning three days before the landing.[370] On the day before the landing, the hydrographic vessels came under enemy fire, but were supported by destroyers designated for protection. Following the successful landing on Z-day, and during the course of a river survey preliminary to another planned assault, *Lachlan* discovered that the Japanese had abandoned the target area, and effectively staged an unopposed landing at the objective from its survey boats. It was another first for the 'survey navy' and the Allied Task Force Commander appropriately congratulated *Lachlan* on her achievements.

The selection of landing beaches at Balikpapan created tensions between Army and RAN planners. The RAN was concerned over the extent of the minesweeping task

presented by the Army's choice of beach, as it adjoined an area subject to intensive Allied aerial minelaying during 1944. There was also concern about beach obstacles. The Dutch plans of their obstacles were in the possession of the Allies, but there was no information on whether the Japanese had strengthened them during their three years in occupation of Balikpapan. The Army view prevailed, but this entailed 16 days of pre-landing minesweeping and an intensive effort by underwater clearance teams to clear the obstacles. *Warrego* led the hydrographic survey group. The intelligence to emerge from all the hydrographic and topographical efforts, as well as those of the clandestine shore parties, was a very accurate picture of the beaches, the enemy defences and the navigational hazards. As a result, the landings went extremely smoothly although the element of surprise was lost.[371]

The war thus ended for the RAN Hydrographic Branch on a high note. The complexity of the hydrographic operations undertaken in the Philippines and Borneo, often under fire, and the importance of the contribution of the survey vessels to the success of the landings which followed, have been overshadowed by the more visible elements of the assaults delivered against their targets. Any image of troops charging ashore from landing craft into scenes of devastation, blast and smoke is compelling, far more so than of a survey vessel and its boats dutifully plodding across the areas of sea contiguous to those beaches. But from the first tentative days – of finding a safe passage for small ships sneaking up the coast of eastern Papua towards Buna and Gona, to the rather more grand finale of the descent upon Balikpapan – the hydrographic resources of the Allies in the SWPA, bolstered by the Allied Air Forces' invaluable photo reconnaissance and the AIB's hazardous and often fatal missions, ensured that those troops reached those beaches in good navigational order. There were no Tarawas in the SWPA, despite the range of similar problems confronted. This was an intelligence success story of high order – an almost complete jigsaw.

## Operation JAYWICK—The First Raid on Singapore, September 1943

The outline of the story of Operation JAYWICK is generally well-known. In September 1943 a group of Australian servicemen sailed to Singapore in a captured Japanese fishing boat, *Krait*, successfully attacked Japanese shipping there using limpet mines attached by kayak teams, and returned unscathed and triumphant to Australia. When the facts were revealed, the raid captured the public imagination for its daring.[372] JAYWICK spawned three popular books – *The Heroes* by Donald McKie published in 1960, *The Heroes of Rimau* by Lynette Silver published 30 years later, and *Krait: The Fishing Boat that Went to War*.[373] The latter was associated with a campaign to have *Krait* entered on the National Estate, which saw the ship transferred to the Australian National Maritime Museum in Sydney, where she now rests. A fourth and later book, *Kill*

*the Tiger: The Truth about Operation RIMAU*, while concentrating on the latter operation, also deals briefly with JAYWICK.[374]

JAYWICK was designed to demonstrate to the Japanese that the British could strike at the heart of their new empire and, at the time, there was no feasible alternative to the use of irregular means. The scale of the success of the JAYWICK raid can easily be overlooked. This was brought home to the author as he contemplated a memorial in the USN's Washington Navy Yard commemorating the career of the fleet submarine USS *Balao*. In two years of war and a number of war patrols, the 2700-ton *Balao* and her company of more than 70 accounted for less tonnage of Japanese shipping than JAYWICK. An examination of the quality of intelligence support provided to JAYWICK, however, indicates that the operation's ultimate success owed more to the resourcefulness of the personnel concerned than to any good planning and management by the RAN, GHQ SWPA, its organs or, in some instances, by the JAYWICK team leaders themselves.

The origins of JAYWICK are clear. The operation was conducted under the aegis of the Services Reconnaissance Department, an agency of Britain's Special Operations Executive (SOE) in Australia and, from July 1942, one of the four AIB agencies under GHQ SWPA. Formed in Melbourne in March 1942 as the Inter-Allied Services Department (ISD), of all the 'irregular' organisations of the Allies this most personified the term.[375] The passion for secrecy was so ingrained in ISD that, for example, it was not until *Krait* had sailed for Singapore that the other ranks of the raiding party were told their destination.

The operation was conceived in India by two British Army officers, Majors Lyon and Campbell, who had escaped the fall of Singapore and engaged in a series of rescue operations in the NEI using commandeered small craft before sailing to Colombo. They developed a plan for attacking shipping in Singapore using similar craft, and presented this to the Indian Group of SOE in early 1942.[376] Key points in British acceptance of the proposal – it needed the approval of the Commander-in-Chief India and Commander-in-Chief Eastern Fleet – were that the Japanese were expected to struggle to exercise control over the large number of small watercraft in their newly annexed NEI waters, and that Lyon had a good knowledge of the waters around Singapore, based on five-years yachting experience before the war. Lyon appears to have personally convinced Commander-in-Chief India of the soundness of his proposal.[377]

For operational reasons, SOE decided the mission was better mounted from Australia, where the two officers were sent.[378] It was not clear under whose authority the project should fall: the SOE report simply stated, 'they formed a separate operational unit in that country'. The two officers had an entree into the highest levels of Australian society, being billeted in Melbourne with the Governor of Victoria and dining with the Governor-General. It was probably through one of these two avenues that they were put in touch with DNI Commander Long. Long's contacts and influence were critical to the conduct of the operation.[379] It was undoubtedly Long who arranged the meeting of Lyon with ACNB on 17 July 1942, at which he was advised that JAYWICK 'as originally planned would

have the complete support and co-operation of the RAN'.[380] It was also agreed that the operation would be carried out under the guidance of DNI, but that in all other respects, especially financial, it would be regarded as an SOE activity. However, as Singapore lay at the very extremities of the SWPA, GHQ had no interest in the proposal, despite ardent support from Blamey.

At that point, with the imprimatur of CNS Royle, planning for the operation began.[381] The RAN supplied the vessel *Krait* and most of the manpower. Fifteen young sailors were selected from Flinders Naval Depot near Melbourne in August–September 1942 for training for the operation, while *Krait's* skipper and navigator, Lieutenant Carse, RAN Volunteer Reserve (RANVR) stated that he was selected personally by Long and provided with a letter of introduction by him to ISD. He had been at the RAN College at the same time as Long, but had left the service in the 1920s. ISD provided much of the material and some of the training for the raid, most of which was undertaken at Refuge Bay near Sydney and at the ISD base, 'Z Experimental Station', outside Cairns in North Queensland. Physical fitness, water skills, concealment, silent killing, handling of the collapsible kayaks – 'folboats' – and the placement of limpet charges were practised. The training was hard and thorough. One of the exercises was a kayak raid on Townsville Harbour, where the JAYWICK party succeeded in placing practice charges on a number of Allied warships and merchant vessels, without detection.

Very thorough research was done to prepare the boats, ordnance, men and clothing. And while the personnel for the operation were under training, the intelligence that would support and shape the plan was being gathered. The work appears to have been done by Lyon and Campbell in isolation, although it is difficult to believe that the link to DNI did not provide something of a devil's advocate service to test the planners' hypotheses.[382] Nevertheless, this independent approach appears to have been standard for earlier special operations mounted from Australia, as formal instructions for planning and mounting operations were apparently not issued until 1945.[383] The initial result was not impressive. In a brief of the operational plan submitted in around February 1943, *Krait* was to sail to an island within eight miles of Singapore, and the party was to seize and hold captive at gunpoint the island's inhabitants while the raiders paddled across the strait and destroyed their targets. It was anticipated that it would take the Japanese 48 hours to work out what had happened and come after the raiders.[384] It was fortunate that fate did not smile on this highly risky plan, as the unservicability of *Krait* caused a postponement of the operation.

It is difficult to identify the sources of the intelligence on which such a plan could have been based. With the considerable force of DNI Long's authority behind it, the mission should have had access to all the available intelligence on the Japanese presence in the Netherlands East Indies.[385] However, the only sources quoted by the planners, or deduced by other researchers, leave some considerable gaps in the knowledge that the operational commander of such a mission would want to have.[386]

A portrait of the members of Operation JAYWICK



MV *Krait*, the merchant vessel that carried the members of Operation JAYWICK

There was, for example, almost no information on the enemy forces likely to be encountered. Sigint, while being able to count the number of warships in the area and account for their movements, could not outline the organisation of or instructions for maritime patrolling along key parts of the operation's track, such as Lombok Strait or the Riau Archipelago. But, in any case, Lyon was not entitled to have access to Sigint under British rules, and there is little evidence that much existed. In its place, he was issued a poor substitute in the form of very low credibility information:

> Available intelligence and the report of a Dutch officer who escaped from Batavia in July indicate: (a) That the Japanese have no effective patrol of the JAVA and FLORES SEA areas, which they appear to regard as safe from attack. (b) There is little control of small inter-island craft in the vicinity of the strategic points. (c) They feel they are perfectly secure in their NEI bases.[387]

The planners of JAYWICK assumed that *Krait's* Japanese provenance would protect the vessel from undue attention from Japanese patrols, and in keeping with this disguise, she flew the Japanese ensign while in enemy waters. [388] This was sound planning as far as it went, but Allied intelligence missed the fact that the Japanese had registered all fishing craft, and those flying the Japanese ensign were obliged to display their registration details prominently on the wheelhouse, in *kanji* characters and Arabic numerals. As matters transpired, *Krait* was lucky. She was intercepted by Japanese patrols only once, during her return voyage and at night when her lack of registration numbers did not matter. In addition, the Japanese ensign also seems to have persuaded native Malay craft to give her a wide berth, so that her singular lack of registration was not reflected upon and reported.

JAYWICK took with it Japanese aircraft silhouettes, and photographs and silhouettes of Japanese merchant ships, but *Krait* seems not to have carried Japanese warship silhouettes as a recognition aid. When a patrol boat was eventually sighted in the Lombok area on the return voyage, the party was unable to identify it, and its description of the vessel defeated Allied debriefing personnel as well.

With her maximum speed of 7.5 knots, *Krait's* progress was severely impeded by strong tidal flows and currents. This problem first appeared when she was attempting a passage of Lombok Strait in darkness, which very nearly left the vessel in full view of a Japanese observation post at daybreak. This was an obvious issue, one that should have been addressed and resolved in the planning phase. McKie's account stated that:

> Carse was ordered to Melbourne to see the Director of Naval Intelligence, Commander Long, for a final briefing and to collect the latest Dutch charts from the Dutch Admiral Konrad [sic].[389]

No record of this meeting appears to survive, and Rear Admiral Koenraad would almost certainly not have been advised which of his charts were those sought for JAYWICK. But the information that the vessel intended to transit Lombok Strait would obviously have to have been revealed if estimates of the tidal stream were sought from him. Lieutenant Carse did refer to the Admiralty *Sailing Directions* for the Lombok Strait area, which provided him with warnings on the current. However, according to McKie, the Dutch had been unable to provide any substantive information on the stream likely to be expected except that 'it shouldn't be more than four knots inside the Strait and a bit more in the narrows between Nusa Besar and Lombok'.[390]

Two other items of intelligence were provided to Carse. The first was a prediction by meteorologists that a low thick haze would shroud *Krait's* approach to Lombok. This stubbornly failed to eventuate. The second was that Allied intelligence had no idea whether the Japanese patrolled the strait. This is strange indeed. Rear Admiral Christie's USN submarines based on Western Australia had been intruding into Japanese-held territory for at least a year before *Krait's* departure, and they did use Lombok.[391] Christie himself stated that, 'The Commanding Officer of the 'KRAIT' was recently advised that Lombok Strait might possibly be mined'.[392] But Christie also advised that Carse had been asked to report mines or any other anti-submarine activity, and JAYWICK's first radio transmission after exiting the strait on her return voyage was to pass that information to Christie.[393] This is also odd, because Allied Sigint had reported in February 1943 that the Japanese were using Lombok Strait in preference to Bali Strait because the latter was thought to be mined.[394] Christie's involvement with JAYWICK was more appropriate than Koenraad's, but the question remains whether the submariners (or DNI) passed on all their intelligence for *Krait*'s area of operations to Carse. Perhaps they were being cautious about revealing much, because the chances of the JAYWICK mission falling into enemy hands were high.

Lynette Silver, author of two of the works on JAYWICK, advised that, according to unpublished reports made available to her in her research, the near-catastrophe at Lombok Strait resulted from poor navigation by Carse.[395] This is a plausible hypothesis, but does not explain two of the more puzzling errors in planning. In the final version, the JAYWICK planners had selected an island in the Riau Archipelago about 35nm from Singapore as the base from which the kayak attack team should be launched forward into the target area. When *Krait* reached this vicinity, the site was found to be unsuitable because of its open topography and the presence of Japanese aircraft and patrol craft, and an alternative had to be found. After a tense search, the island of Pandjang some 30nm from Singapore was selected. The necessity of cover for the kayak teams at their base had apparently escaped the planners' attention when the initial selection was made. The need to explore other sites exposed *Krait* to observation and speculation by the plentiful native villages, fish traps and sailing craft the vessel encountered while picking her way through the Riau island chain.

A similar fate befell the plan that *Krait* should lie up concealed in mangroves to await the return of the raiding parties. This was said to have been the suggestion of Admiral Koenraad, who seems to have known a lot about this highly secret expedition, but it may also have come from reports by British naval officers who had escaped from Singapore in February 1942. They had operated for some weeks along the east coast of Sumatra evacuating stragglers, as had Lyon, and concealment in mangroves with nipa palm camouflage had worked for them in many cases during their retreat west.[396] In the event, this suggestion was found to be impractical because of the native activity in and around possible lying-up sites: instead *Krait* loitered off the coast of Borneo while waiting for the attack parties to return to the recovery rendezvous. A track chart of the approach and withdrawal of *Krait* and the raiders, based on Silver's *Krait*, is shown at Map 13.

The raiders themselves now experienced the complications of inadequate intelligence, and bad planning. Initially, Lyon had selected the island Pulau Kapal Kechil, which enjoys an excellent view of Singapore Harbour, as the point from which the raid would be launched. The attack team instead decided that the island of Dongas, 13 kilometers east of Kapal Kechil and a similar distance from their objective, should be the launch site for the final assault. It was uninhabited, had a prominence from which a good view of their target area could be had, and adequate cover for them and their kayaks. But they had, unaccountably, failed to take into their calculations the current that sweeps from west to east through the Singapore Strait. It seems unlikely in the extreme that this well-known feature of the strait could have been unknown to either Lyon or Davidson. The Admiralty's *Sailing Directions* that Carse continually used contained this information. Thus the first assault attempt failed because the kayak crews were unable to paddle across the powerful current, and were forced to call off the attempt and reconnoitre a new base. This was found 7nm to the west of Dongas, after a night paddle against the current through severe weather, which threatened the safety and survival of the raiders, and left them physically exhausted.[397]

There were other odd aspects of JAYWICK, which can only be attributed to the command. The need for the raiders to darken their skin colour was a feature of their training: 'During training as little clothing as possible, to allow the maximum of sun tanning, has been worn'.[398] Their tans were supplemented with a skin dye, which proved difficult to apply and harder to maintain, and was not trialled before the operation. Neither were the japara suits that the raiders endured throughout the kayak stage tested before being donned for the raid. They proved to be uncomfortable and odiferous. *Krait* nearly foundered in the Arafura Sea because the bulletproof coating applied to the upper deck adversely affected her stability. The medical supplies embarked were inadequate to treat common tropical ailments, such as prickly heat and tropical ulcers, which appeared during the voyage, and an eye complaint which nearly left Carse, the only qualified navigator, blind.

Map 13 - Track of Operation JAYWICK, August-September 1943

In the end, JAYWICK succeeded because of the raiding team's tenacity and courage and *Krait's* provenance, together with the cautious policies Carse adopted to avoid being sighted. The laxity or absence of Japanese patrols, about which Intelligence had been able to say nothing, also aided their approach and escape. It was an operation carried out despite the lack of intelligence on the enemy, the man-made and natural hazards that the raid could expect to encounter, and the target itself. Intelligence was either unavailable, was not made available, or was not applied correctly by the mission planners. Any oversight of the mission by DNI Long or his staff also failed to detect these gaps and errors. The operation's intelligence jigsaw was missing many of its important pieces.

A sad footnote to the success of JAYWICK is that the operation's much more ambitious and well-equipped follow-up exploit, Operation RIMAU in October 1944, failed utterly. The raiders were compromised by their attack on a Malayan Auxiliary Police post before launching their raid, and all personnel, including the leader Lyon, then a lieutenant colonel, were either killed or captured, and later executed by the Japanese. The failure of the expedition was detected in Sigint.

# Task Force 74 at Biak, June 1944

Opportunities for fleet actions occurred rarely in the SWPA. While there was intense sea-fighting in the neighbouring Central and South Pacific Command areas in and around the Solomons, neither the IJN Fourth Fleet nor the Allied 7th Fleet had the naval forces with which to confront each other. This situation continued until the middle of 1944, when the Allied amphibious assault on Biak Island at the western extremity of the island of New Guinea brought SWPA to the attention of the IJN Combined Fleet.

The operational commander at the scene was Rear Admiral Victor Crutchley, RN, as CTF 74. His first experience of engaging a Japanese surface force had been at Savo Island, where the honours went decisively to the IJN. Another opportunity loomed in 1943 when his Task Force was loaned to SOPAC to make up for some of the US cruisers lost in dislodging the Japanese from the Solomons and Bougainville. However, the Japanese force was defeated before he arrived. His final opportunity was to be at Biak in June 1944.[399]

The transformation of the battered remnants of TF 44 at Savo into the confident TF 74 which faced the Japanese at Biak is not only a tribute to Crutchley's drive and personality but also the developments in naval tactics. The use of technology and the growth in the support provided by intelligence to operational commanders made great strides in the two years between the encounters. As recounted in Chapter 3, Crutchley had been RACAS for a mere eight weeks when he and his force were thrust into Operation WATCHTOWER at Guadalcanal. The Battle of Savo Island yielded startling

revelations about Allied shortcomings in command and control, operational readiness and material condition, and it can be fairly said that Crutchley strove continually to ensure that his Task Force overcame all of these.

On the operational side, he worked his squadron hard. The routine reports from the Task Force throughout 1942 and 1943 were filled with exercises conducted – gunnery drills carried out, surveillance and reconnaissance exercises, submarine recognition and night-encounter exercises.[400] Nor did he allow shore authorities any leeway when it came to the readiness of his ships. He identified deficiencies in a number of operational procedures: advice of the passage of friendly shipping through his areas of operation, lack of cooperation between his squadron and RAAF coastal radar sites, transfer of air-reconnaissance information to ships and the need for more information on DF fixes.[401] He was scathing about the effectiveness of the high-level bombing tactic in vogue with the USAAF in the early part of the war.[402]

Crutchley made himself keenly aware of the relative discrepancies between his Australian ships and those of the USN. He was particularly concerned with the ineffectiveness of the Australian cruisers' radar, the restricted number of communications circuits, especially voice circuits, that could be established and the lack of flashless powder for his larger guns – a critical deficiency in the night fighting which the IJN favoured.[403] He was confident in his ships' capabilities in gunnery as they had established a fine reputation in this discipline. Crutchley concluded his 30 July 1943 routine report with the following observation:

> Officers and men of HMA Ships meet their US equivalents who have just engaged in successful actions against the enemy and they hear how these actions have been fought and won. They see that inferior and older US ships are being kept abreast of the times by the fitting of modern radar, 40mm guns, etc., and they know that for lack of similar up to date equipment, they may be denied the chance for meeting the enemy on the same effective terms. This is bad for morale.[404]

Command, control and intelligence were of special concern to Crutchley and his staff. He was not only interested in radar as a method of detecting the enemy: the use of radar to control and direct naval warfare was a subject to which he applied much thought. His letter to ACNB of 30 July 1943 is a summary of the lessons learned in discussions with senior USN officers who had been involved in the fighting in the Solomons. Radar had provided the USN with an effective counter to the IJN's pre-eminence in night fighting. Furthermore, their senior officers had fought several engagements, not from the flag bridge in the traditional manner, but from in front of a radar screen.[405] This change to centuries-old tradition had occurred in less than 12 months after Savo Island, a battle where over-dependence on radar was identified as a contributing cause of the Allies' defeat. Crutchley was so impressed by the innovative use of the new technology by the

Americans that he suggested the Admiralty might also be interested. Here was a true breakthrough in naval warfare which, in the terms of Alastair Cooper's observations, forever separated those senior officers and their staffs who could understand and embrace the new technology from those who could not.[406]

Crutchley's interest in signals intelligence was similarly keen. His discussions with his American counterparts made him aware that the IJN might well monitor Allied naval communications frequencies and derive intelligence from them. He was well aware of the potential of DF, and his staff maintained a plot of DF fixes. He encouraged ACNB to pass along with each fix of enemy submarine transmissions the details of the frequency on which the enemy transmission had made. He noted that US commanders detailed a destroyer to maintain watch on suspected Japanese submarine frequencies.[407] One can only wonder why Crutchley did not take the next obvious step and ask for what the USN termed a 'Radio Intelligence' team in his flagship to intercept, decode and translate IJN transmissions. One can only conclude that the RN embargo on having field commanders liable to capture in possession or with knowledge of ULTRA would have prevented this.

The point in emphasising these technical issues of naval warfighting is this: in August 1942 Crutchley was an intelligent and experienced RN officer, backing his operational judgment with war service against the Germans and Italians in the Atlantic and Mediterranean. Neither he nor any of his USN contemporaries or their staffs were ready for the IJN phenomenon. By the end of July 1943, we find a quite different admiral who, with his staff, had analysed the rather different ways naval war would be fought in the Pacific, using new technology and its application in innovative tactics. And he wanted his RAN ships to be equipped with the latest technology so that they too could fight in innovative ways.

But he had to get his information on war fighting and absorb the new ideas second-hand. Between WATCHTOWER and January 1943, TF 44 was held by CANF as a ready reaction force, patrolling the Coral Sea lest the Japanese attempt to interfere with Allied resupply efforts into New Guinea or  attack Allied bases in Milne Bay. It was a sound strategy for preserving a precious resource, but Crutchley could see no point in it, and said so. He got his way when the Coral Sea patrol was suspended on 10 January 1943. During the five months of patrolling there had been no contact with the enemy.[408]

Apart from a brief respite in February 1943, when TF 44 escorted four large troopships into Sydney, the force remained based in Brisbane. In March, with the change of designation to TF 74 came a new role, that of a striking force available at short notice. In July, TF 74 was the supporting force for the amphibious landings at Kiriwina and Woodlark Islands, a role that was to become very familiar. On 13 July Crutchley took *Australia, Hobart* and two destroyers to join the US 3rd Fleet to reinforce that battered force in the Central Solomons, in the process of which *Hobart* was torpedoed. However,

*Australia* was not called upon to join in the Solomons battles, and Crutchley and his ships returned to SWPA without gaining any further battle experience.

Next, TF 74 moved to Milne Bay to counter a possible IJN cruiser foray from Rabaul, and then to support the Operation DEXTERITY landings at Arawe in western New Britain in December. On 26 December 1943, preceding the amphibious attack on Cape Gloucester, the squadron fired its first shots in anger since Savo in August 1942. The pace of amphibious landings then picked up. Crutchley's cruisers saved GHQ SWPA from a potential reverse when MacArthur's 'reconnaissance in force' of the Admiralty Islands ran into stiff Japanese opposition in early March 1944. MacArthur had ignored intelligence on the strength of the Japanese garrison in the Admiralty Islands in sending a hastily concentrated US Army force of just over 1000 men to land on 29 February, under particularly difficult hydrographic conditions, on a beach on the eastern extremity of the main island. The Japanese had concealed their positions from Allied reconnaissance, but they responded with great vigour to the amphibious assault, outnumbering the attackers two to one. Admiral Kinkaid, USN, first sent the destroyers of TF 74 to the aid of the embattled soldiers in attempting to destroy enemy artillery positions by naval gunfire support (NGS), and to force the entrance to Seeadler Harbour. When the destroyers failed, the cruisers under Crutchley were sent to back them up, finally silencing the Japanese guns eight days after the initial landing.[409]

On 27 March Kinkaid split the task force, which had been reinforced with the arrival of more ships, into TF 74 under Crutchley, and TF 75 under Rear Admiral Berkey, USN. The American cruisers went to Berkey but Crutchley retained his US destroyer screen. Both began preparing for their role in the landings at Hollandia–Tanamerah Bay on 22 April 1944, with Crutchley's force supporting the latter. Thus far there had been little naval opposition encountered by MacArthur's forces. The IJN had withdrawn its ships, as its base at Rabaul had been made untenable by the Allied advances up the Solomons chain to Bougainville, and from Papua to the western end of New Britain. General Kenney's Allied Air Forces continued to attack vigorously all Japanese airfields within reach of heavy bombers along the New Guinea coast, thus greatly diminishing any threat from the air. The Japanese naval high command was regrouping its forces for the 'decisive battle' believed to be developing in the Marianas. There was no Japanese naval force large enough to contest the landings being conducted by GHQ SWPA without risking the outcome of this potential clash.

Crutchley and his task force continued to steam along the central and western New Guinea coast, and delivered bombardments in support of the landings at Wadke and Toem on 17 May and at Biak on 27 May. The lack of Japanese naval opposition made it difficult for Crutchley to exercise and analyse the tactics he would use to defeat an enemy force. His familiarity with the resources available, should this opportunity arise, continued to develop, and the chance to use them was rapidly approaching.

The bridge of HMAS *Australia*

It is not quite clear why the Japanese Navy chose to respond to the Allied landings at Biak with efforts to reinforce the garrison, and by beefing up its air power to oppose the Allied advance. While the date of the landing being the 39th anniversary of the defeat of the Russian Fleet at Tsushima by Admiral Togo may have been a factor, it is also true that the airfields on Biak represented the southern anchor of the IJN's *A-Go* Plan for decisive battle. Loss of these could adversely affect the IJN ability to bring land-based air power to bear on the US Pacific Fleet. Whatever the reason, the Japanese response was swift. Over 160 aircraft were ordered south to bases in Sorong, at the western tip of New Guinea, and on Halamahera. Combined Fleet staff rapidly drew up plans for the reinforcement of Biak under the codename 'KON'. The essence of KON was that land-based aircraft would attack and reduce or repulse the Allied assault, while a surface force of cruisers and destroyers commanded by Rear Admiral Sakonju would land reinforcements under cover of a screening force of a battleship and heavy cruisers.[410]

As the most powerful ships C7F Kinkaid had were one Australian heavy cruiser and several lighter vessels, KON might well have succeeded. However, Sigint revealed the KON Plan to GHQ, and Allied air power was building. The IJN cruiser/destroyer force carrying the reinforcements was identified in Sigint, and then sighted by an Allied air patrol on 3 June. On learning this, the Japanese Combined Fleet ordered KON suspended, the battleship screen withdrew to Davao in the Philippines, and the cruisers and destroyers proceeded to Sorong in New Guinea. Intelligence used to inform operations had frustrated the IJN's first attempt to reinforce Biak.

Admiral Kinkaid's response to KON was to combine his cruiser forces under Crutchley, and to deploy them in the northwestern approaches to Biak. Crutchley's orders were to destroy any inferior enemy force encountered and to retire before superior forces. Around noon on 4 June, a Japanese aircraft detected TF 74, and the force was heavily attacked from the air later that afternoon, with light damage to one cruiser. Sigint then suggested that the Japanese would attempt a night reinforcement of Biak, and Crutchley's force was ordered to close the island during the night of 4–5 June to repel them. However, the Japanese ships were not detected: Phase 1 of KON had been postponed.

The second phase was another reinforcement attempt by the Japanese from Sorong on the night of 8–9 June, which gave rise to the battle.[411] While approaching the island, the Japanese ships were attacked by Allied aircraft, and that evening Sakonju was informed of an earlier sighting of Crutchley's force heading west at high speed from Hollandia. He decided to retire, but not before being detected by US surveillance aircraft about 60nm from Crutchley's position. While working up to full speed to intercept, Crutchley dispatched his destroyers to harry the Japanese. The result was a long stern chase, with Crutchley's cruisers breaking off the pursuit when it became apparent that the faster destroyers were in sufficient force to deal with the enemy. Despite a prodigious
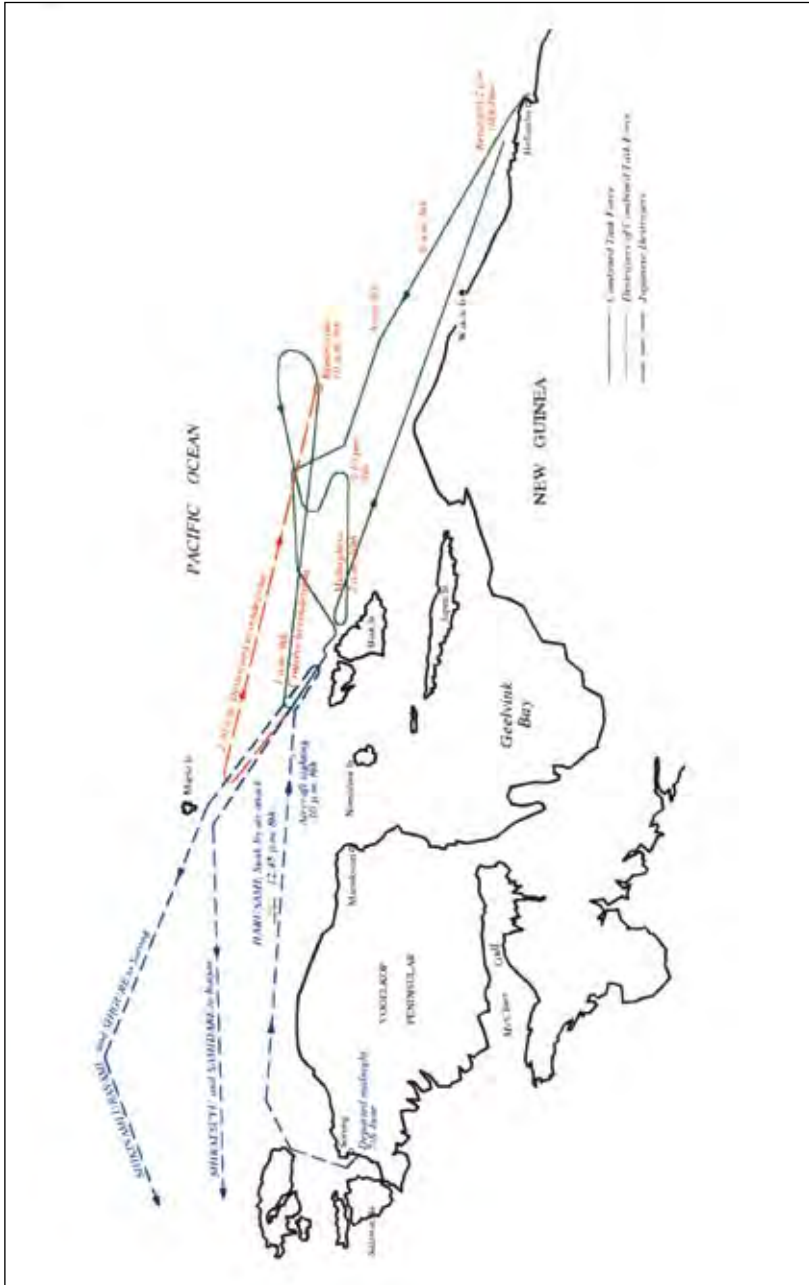
Map 14 - Task Force 74 Biak, June 1944

expenditure of ammunition and torpedoes on both sides, the Japanese were neither overhauled nor significantly damaged, and the Allied ships were called off to return to the safety of the Allied air umbrella.[412] A track chart of the action, taken from Gill's *Royal Australian Navy 1942–1945*, is at Map 14.

The American historian Samuel Eliot Morison suggested that the preamble to the Battle of Biak closely resembled that before Savo Island. It is difficult to see any but a superficial likeness, but the comparison is useful in evaluating the very different intelligence picture from which Crutchley and his staff were working.[413] To begin with, they knew the likely composition of the enemy force, since the position and results of a USAAF strike on Japanese warships off Manokwari on the afternoon of 8 June were promptly forwarded to Crutchley. Contrast this with the long delay between the Hudsons sighting Mikawa's force and the information reaching Turner and Crutchley at Savo. Crutchley knew the enemy ships' capabilities and the ports whence they would sail. The direction of the enemy's approach was evident, and what would later become Kinkaid's disposition of TF 74 to counter KON was discussed and agreed in a conference on covering operations onboard *Australia* five days before the landing.[414] Crutchley discussed surveillance sectors using the Catalinas attached to the tender USS *Orca* at Hollandia before sailing, a totally different situation from WATCHTOWER, where air reconnaissance was the responsibility of a senior officer remote from the area of operations and where the on-scene commander did not determine the sectors flown.

Intelligence on friendly forces was excellent. In contrast with the situation before Savo, Crutchley had worked with most of the ships of his combined command beforehand, and he knew several of their commanding officers personally. Rear Admiral Berkey had been his second-in-command for more than a year. Kinkaid's selection of Crutchley to command the combined forces – four cruisers and nine destroyers, ten of the ships from the USN – which were later joined by four more USN destroyers, indicates that the two admirals had a good working relationship and that C7F had no doubts about Crutchley's competence.[415]

Tactically, despite a lack of actual experience in fighting the IJN within the force, TF 74 was operating from a common doctrine, common communications links and common procedures, all of which had been well practised. Thanks to radar, with which all units were now equipped, and the intensive practice Crutchley had given his crews, the issue of a night battle with KON forces posed few problems to Crutchley or his ships.[416] Targets the size of destroyers would be detected at effective gun range and not at a few thousand metres as at Savo.[417] Similarly, all ships were fitted with voice radio and all had identification friend-or-foe transponders. The problem of distinguishing between friendly and enemy forces and of learning what was happening at the extremities of his force would not be a concern for Crutchley. There would be no repetition of the

confusion of 8–9 August 1942. Above all, he would be able to exercise positive and real-time control over each and every ship.

Intelligence also ensured that Japanese strengths and weaknesses were understood. The IJN penchant for torpedo attack and the effectiveness of this tactic were appreciated, and countermeasures had been devised. Japanese fighting qualities had been assessed, but there was no lack of confidence in the capabilities of the Allies to better them. This confidence extended to cooperating elements, including land-based air. Although he did not say so in his report of the battle, Crutchley was intending to direct his force from the face of a radar set, as his USN contemporaries had in the later Solomons actions.[418]

Behind all these tactical considerations lay an experienced 7th Fleet staff with access to additional resources, such as those of the 5th Air Force with bases at Hollandia and Wadke, and Sigint from the USN network. Intercepts that have survived the culling process clearly demonstrate that the Allies had an insider's view of the Japanese intentions and activities in KON.[419] They knew that Biak was to be the central focus of KON, that ships (by name) and aircraft had been assigned to the operation, and they knew when KON had been suspended and why. They had Japanese reconnaissance and battle reports about KON, many of which were erroneous: the IJN was still seeing Allied battleships where there were none. And, backing up Allied caution, the summaries also showed that the Japanese were intercepting Allied enemy contact reports. [420] With information of this quality, Kinkaid was able to direct Crutchley into the best position to intercept any reinforcement attempt, and to move him out of harm's way, if required.

Crutchley was as ready as he would ever be to take on a Japanese surface force, and he manoeuvred his force with confidence and élan. He understood his task and was aware, once action had been joined with the first Japanese force, that there could well be a second in the area.[421] He certainly did not lose sight of the aim of preventing a Japanese reinforcement of Biak, as Mikawa had neglected his in failing to destroy the transports at Guadalcanal. He quickly appreciated that the Japanese destroyers could easily outrun his cruisers, and he left the chase to his destroyer divisions. He recalled them when it seemed that they ran the risk of enemy air reaction, and were outside the coverage which Allied fighter aircraft could provide. No Allied ships were lost or damaged, and Sakonju was compelled to abandon his mission. Crutchley had exercised sea power in a most competent and complete manner. Biak was far from a rerun of Savo Island, as his intelligence jigsaw was virtually complete.

Intriguingly, the Battle of Biak could have had a very different result. After the failure of KON Phase Two, on 10 June the Combined Fleet decided to throw the super-battleships *Yamato* and *Musashi* into the contest over Biak. These monsters were on their way when they were diverted by Admiral Toyoda's execution of *A-Go,* the plan for the long-awaited decisive battle following the US assault on the Marianas.[422] With most USN

heavy forces committed in the Central Pacific, Admiral Kinkaid would have had great difficulty in fending off KON Phase Three.

## Wewak Force, April—May 1945

With the rapid advance of the predominantly US SWPA forces northward into the Philippines, the task of mopping up the Japanese garrisons left isolated in their wake became a responsibility of the Australian Army and such other forces that GHQ SWPA could spare. With major elements of that command fully committed in the Philippines and beyond, and the 1st Australian Corps engaged in preparing for the assaults in Borneo, this generally meant minor sea and air forces only were available.

In one sense, the size of these elements in the campaign did not matter. There was no Japanese surface threat, and the air threat was minuscule. Well-armed covering forces were no longer needed to ensure the safe and timely arrival of amphibious and resupply convoys. On land it was a different matter. Despite being isolated from sources of reinforcement and resupply, and while sickness and nutritional deficiencies had taken their toll, the IJA showed no lack of willingness to fight, and the Japanese had had considerable time to organise and strengthen their defences against the inevitable Allied assault. Determined resistance could be expected.

At the same time, it was evident to all concerned that the tide of war was running strongly against Japan, and that the New Guinea theatre of SWPA was now a backwater. Debate on the wisdom, or even the necessity, of assaulting Japanese positions and incurring Allied casualties ensued. Nevertheless, the Australian Government needed to reassert its authority over those areas of the Trust Territory of New Guinea not already under its control, and it had the means to do so.

Wewak was a central point in the Japanese occupation of the north coast of New Guinea as a headquarters, a supply base and a military strongpoint. The Japanese expected an Allied assault there, and in the lead-up to the Hollandia operation in April 1944 it was extensively bombed by the Allied Air Forces as a diversion.[423] An integral part of the Hollandia operation was to land a subsidiary force at Aitape, about 90nm west of Wewak, both to capture the airfield there and to interpose a blocking force should the Japanese Eighteenth Army attempt to move west to the relief of Hollandia.[424]

By March 1945, the Japanese defenders of the Wewak area had been much reduced.[425] The Australian 6th Division had the responsibility of ejecting these remnants from their positions, and had proposed a major amphibious landing in Dove Bay just east of Wewak. However, a shortage of amphibious shipping curtailed this plan, and a land advance along the coast was substituted, with the support of naval forces gathered under the title 'Wewak Force'. This comprised the sloop *Swan*, three corvettes and four motor launches (MLs) – later increased to six – under the command of Lieutenant

W J Dovers, RAN. Wewak Force was to support the 6th Division in its advance along the coast with bombardments by *Swan* and the corvettes, and patrolling, harassment and interdiction of Japanese Army barges by the ML squadron. Dovers' force was also to support a smaller amphibious landing in Dove Bay, and these operations took place between 21 April and 26 May 1945.[426] Support to the army was delivered in five phases, as the 6th Division moved forward against its objectives in the area of operations depicted in Map 15, which is taken from Long's *The Final Campaigns*.[427]

Intelligence for this operation was very largely provided by 6th Division.[428] On the maritime side, Dovers knew of an Allied minefield in the vicinity of his operating area that had been due to sink in November 1944, and this was swept with negative results.[429] He appreciated that Japanese surface forces he had to contend with were restricted to armed barges, but that there was an outside possibility of IJN submarine activitywhile the air threat was minimal.[430] Dovers knew that an AIB party had been landed on Muschu Island, offshore of Wewak, in April, and his MLs were employed in fruitless attempts to make contact with these men. All but one had, in fact, been killed by the Japanese garrison or were lost at sea attempting to make contact with the Australian troops on the mainland.

Dovers seemed to have a remarkably good understanding of the strengths and weaknesses of his own forces, both ashore and afloat. He devoted some days to the training of Army bombardment liaison officers to be used in ships to coordinate calls for fire and ashore as spotters. This tactic clearly improved the effectiveness of the warships' fire, and these officers were also useful in 'translating' instructions from the air spotters of the RAAF into naval parlance, something that had apparently not been included in the RAAF training. He had also been informed from intelligence sources that, besides inflicting damage and casualties on the enemy, naval bombardment caused alarm and despondency among the native bearers employed by the Japanese. The bearers were inclined to 'go bush', thus disrupting the enemy's resupply arrangements, and this consideration probably led to the many harassment and interdiction fire missions his ships performed:

> It was important that we kept the Japanese heads down as much as we could and also it gave the smaller ships something to do. They felt they were really assisting the Army in what we were trying to achieve and that was pretty important at the time. [431]

Dovers had some hard observations about his MLs. He cited the lack of training in operations for their command teams, and especially their lack of attention to their weapons. This led to defects, particularly burst barrels of their Bofors guns, which became a resupply problem for Wewak Force.[432] However, he knew how to use them effectively as gunships, deploying them to strafe possible enemy positions in the expectation that returned fire would confirm the existence of a target for his larger

Map 15 - Wewak Force Area of Operations, May 1945

guns. He also credited them with silencing Japanese opposition on the beaches during the landing on 11 May.[433]

Intelligence suggested that the Japanese forces in Wewak were being resupplied by night by barge from Muschu Island. Dovers interposed his MLs, with the result that they were able to bring the barge traffic to a standstill, further sapping the Wewak garrison's ability to resist 6th Division. For their value in eliciting intelligence on Japanese positions and activities, the rather dashing exploits of *ML427* on 27 April in the vicinity of Wewak are recounted in the Report of Proceedings. This small vessel appears to have been under 105mm shellfire for about 30 minutes during its mission.[434] Applying local intelligence sources directly in support of his operations, Dovers also arranged for the MLs to embark local villagers to point out the Japanese defences on Muschu to aid their strafing attacks.

Like other commanders before and since, Dovers had some hydrographic intelligence difficulties. Two of his MLs struck coral outcrops while involved in close inshore work. He was also obliged to detach one of his corvettes to survey an anchorage at But, where Wewak Force could anchor to remain in close contact with 6th Division, and also to save the time and fuel required by a return to the anchorage at Aitape. The logistics issue was a problem, as the only fuel available for the larger ships was at Hollandia, so saving fuel was an important element in keeping his ships on line. Dove Bay was well charted, thanks to the earlier work of TG 70.5, but the approach lanes to be used by the landing ships were sounded (by leadline) by MLs on 19 April – a moonless night. [435] On completion of the successful operation against Wewak, *Swan* surveyed the harbour while one of the ship's boats surveyed adjacent Boram Harbour.

When it came to planning the amphibious landing in Dove Bay, Dovers used the *Manual of Amphibious Operations* as his guide to organising the naval force. Although it was the first amphibious landing he had commanded, Dovers' orders were excellent and certainly met the exacting standards of CCAS Commodore Farncomb, who brought two cruisers and two destroyers to assist Wewak Force with the pre-landing bombardment on 11 May. The experience distilled from other amphibious operations and disseminated as tactical instructions was clearly of assistance to the young operational commander. As it had been for Crutchley at Biak, Dovers' intelligence jigsaw at Wewak was essentially complete.

In the event, all the operational tasks set for Wewak Force were met and without serious human casualties to its units; one ML sailor was slightly wounded, probably by a bursting Bofors barrel. The niggerhead incidents cost Dovers one ML, which had to be towed to Madang, and another lost its sonar dome.[436] Enemy losses in contrast were severe. Dovers had used all his sources of intelligence to plan the operations carefully and had maximised the use of the different capabilities of elements of his force to build on Allied knowledge of the location and nature of enemy positions to deadly effect. On land, the 6th Division gained all its objectives with minimum casualties.

The result of this well-developed planning and application of resources was a small gem of a joint operation, where not only was adequate intelligence provided to the operational commander, but he expertly applied it as well.

## Outcomes

The operations studied in this chapter varied widely, from an individual effort by a small fishing boat, through a fleet action off Biak, to a long-running campaign of attrition off the Australian east coast. Despite the lack of a common thread between them, the nature of the operation is secondary to the consideration of the contribution intelligence made to each one. And it can be fairly said that the contribution increased as time went on. In most cases the facility with which that intelligence was applied to the operation also improved.

JAYWICK was a gamble, the operational desirability of which apparently overrode considerations of adequate intelligence support. The results achieved justified the risk and, in September 1943, the potential loss of one ex-Japanese fishing boat and 14 Allied servicemen was relatively a small price to pay. But the operation shows signs of having lacked the effective operational intelligence input that might have been available to an organisation arranged along more professional and conventional lines, and this runs against the trend in the SWPA.

The east coast battle against IJN submarines was won, but largely by default. CSWPSF and his subordinate commanders had excessive difficulty applying operational intelligence effectively. The lessons emerging from the Battle of the Atlantic were slow to filter into the training of the SWPA escort force, while cooperation between naval and air force commands was frequently unsatisfactory. This battle may not have ranked as highly in the priorities of the intelligence organisations and their cryptanalysts as other concurrent struggles, but despite this, progress was being made, and better training and tactics – and more appropriate application of intelligence – might very well have defeated any resumed IJN attack.

By contrast, Wewak Force's operations demonstrated how a cooperative and harmonious exchange of intelligence could achieve excellent operational results. True, the enemy had all but disappeared from the maritime environment, but the composition of Wewak Force was shaped accordingly. Working with the resources he had, and using his intelligence effectively, Lieutenant Dovers and his band of small ships discharged their task of supporting 6th Division with distinction. The advances made since the days of Milne Bay, Buna and Operation LILLIPUT are striking.

The Allies' lack of sufficient hydrographic and topographical intelligence in 1942 had a direct bearing on the ability of SWPA naval forces to execute effective amphibious and resupply operations. This attracted little sympathy from GHQ, but Vice Admiral

Barbey saw to it that CANF and C7F devoted appropriate effort to the collection and survey tasks. Often overlooked, the contribution made by the small ships of TG 70.5 to the successful series of landings, from Papua to the Philippines and Borneo, is a vivid example of operational intelligence at its best.

Finally, the Battle of Biak illustrates the effective supply to and application of intelligence by Rear Admiral Crutchley and his staff. Crutchley had all the advantages (apart from the possible involvement of the super battleships) and he used these intelligently. He directed the most appropriate elements of his force in the circumstances, the destroyers, at Sakonju's force, once it became apparent that the latter was not going to enter his cruisers' effective gun range. Technology made possible the favourable result at Biak but, in the use of that technological edge, Crutchley and his staff proved adept. They too had come a long way since WATCHTOWER in August 1942.

Crutchley and Dovers had the experience and skill to use their assets effectively, but they had plenty of recent and accurate intelligence on which to base their operational plans. There had been a marked improvement in the quality of intelligence supplied, and problems in communicating this to the operational commanders had been overcome. The close association of the theatre commanders with the operations paid dividends in getting the information the operational levels required to do their jobs.

The same cannot be said of the east coast convoys. CSWPSF and his staff were in Melbourne. Their remoteness from the front line, a division of responsibility between the Navy and the RAAF, and seemingly insuperable difficulties in disseminating intelligence quickly, affected the ability of the operational commanders to respond appropriately to the submarine threat. Competent and determined IJN submarine commanding officers could have seriously delayed General MacArthur's drive towards the Philippines. As the post-war development of the RAN and RAAF showed, these lessons were learned and acted upon. Similarly, JAYWICK was remote from its potential sources of intelligence support and its planning also suffered.

Two important consequences emerged from this period of warfare for the RAN. The first was the respect and professional regard in which the USN held the RAN. The distaste expressed by Rear Admiral Fletcher in 1942 for coalition operations had been replaced, from 1943, by a trust in the 7th Fleet in the capabilities of the RAN and its operational commanders. While there were difficult times to come in post-war years for this relationship, this professional regard never entirely disappeared. Second, RAN operational commanders became aware of the levels of intelligence support they could expect, and RAN intelligence staffs – often embedded in Allied organisations – became adept at providing it. One has only to read the DNI Long's report to the Admiralty in January 1944 to appreciate how far Australia's naval intelligence organisation had advanced since the early part of 1942.[437] The extent of collaboration with Australia's allies, especially in the field of Sigint, was a remarkable improvement on the situation

in March 1942. This ensured that as many as possible of the pieces missing from a commander's intelligence jigsaw were found and positioned.

The principal lesson that was presented to Australians, and to the RAN, was that the generation of intelligence and its application to operations required trained and professional people throughout the whole system.[438] The exposure to the American way of war, the deep integration of Australian personnel in the Allied intelligence agencies, and the involvement of Australian naval personnel in Allied maritime operations at all but the most senior levels, refined and enhanced that professionalism. There is some doubt that the lesson was heeded in the conflicts that followed WWII, and, in later chapters, the degree of commitment by senior military leaders in the post-war years to that ideal of operational intelligence will be examined.

One final comment is offered. In the early 1920s the RAN began to train Japanese linguists. The need for these skills and the expense, in terms of money and the time out of service for students, was recognised and accepted. The program faltered after a few years under a welter of other financial and personnel considerations. Despite evidence and acknowledgment of the rise of a determined Japanese enemy, nothing effective was done to restart the program in time for it to show results in WWII. The shortage of Japanese language skills was keenly felt, especially in the vital areas of intelligence. It is perfectly true that Australia was not alone in this position: both the US and UK services were also left scrambling for Japanese language skills after December 1941. The author is fascinated by this complete failure of the appropriate government and military authorities to act on clear intelligence that Japan was to be a future enemy of Australia, and to take the necessary corrective action to boost its language capabilities. It is, unfortunately, a theme that will reappear in later chapters.

# 5. A United Nations 'Police Action': Korea, 1950–53

The three years of fighting in Korea have often been termed 'the forgotten war'. That this should be so probably reflects the relative dearth of historiographical coverage of the conflict, because the scale of fighting, the stakes involved, the destruction wrought on the Korean Peninsula, and the magnitude of the loss of life should not be easy to forget. It took until 1985 for the official history of Australia's involvement in the Korean War to be completed, while the British equivalent was not published until 1995. Earlier American accounts contain few references to Australia's participation.

For those seeking to explore the contribution made by intelligence to maritime operations in Korea there are extremely limited official sources, latterly supplemented by the memoirs of those who were involved in some of the decision making, plus accounts by veterans. The US National Security Agency (NSA) has also recently released some documentation on the Sigint aspects of the war, but the vast majority of intelligence information on Korea before and during the war remains classified, and unavailable to researchers. This chapter draws together released official records, secondary sources and interviews with veterans to portray the intelligence background to RAN operations in Korea, possibly the first time this has been attempted.

The Alliance in the war against Germany and Japan did not long survive the conclusion of those conflicts. The major split was between the Soviet Union and its satellites on the one side and the Europeans, Americans and other Western allies on the other, ushering in the Cold War. Divisions also appeared between wartime partners as close as Britain and America. The Americans, conscious of their dominant part in winning World War II, and with a monopoly on nuclear weapons, chose to close down or restrict the channels of military and technological exchange that had existed from the early 1940s. Their reasons were a mixture of security, politics and technological self-interest [439]

British expectations were that their considerable generosity, albeit self-serving, in sharing their own technological expertise in radar, ASW, intelligence and nuclear engineering with the United States would guarantee them continued access to American councils. The provision of this intelligence came under the umbrella of an agreement at Defence Department level (the 'Burns–Templer' Agreement), covering the exchange of all intelligence between UK and US forces under all conditions. But the Americans declined to honour the agreement.[440] The British responded by commencing their own nuclear weapon and missile development programs, and other technological projects in which the Commonwealth, especially Canada and Australia, would be closely involved.[441]

The end of the Pacific War brought a reaffirmation by the Australian Government of its links to the Commonwealth, but it also demanded a more prominent position in the decision-making machinery of that organisation, especially in matters concerning defence.[442] The British were willing to grant this request, as it offered a way of sharing the post-war Commonwealth defence burden, and it ensured Australian interest in British programs in which its participation was practically essential.[443] For Australia, access to British weapons and nuclear technology would boost its own defence capacity and enable it to play a larger physical and political role in the region to its north through which the Japanese threat had materialised.

Separately, the Chifley Labor Government committed itself wholeheartedly to the principles of the United Nations (UN) Organisation as a way of forestalling any attempt by a foreign power to wage war on Australia or its interests. The government, and particularly the Foreign Minister, Dr Herbert Evatt, took a prominent position in generating support for the new organisation. The Americans and even the British were concerned at Evatt's attitudes and pronouncements in the UN General Assembly, where his enthusiastic espousal of the principles of the UN Charter regarding the use of force to resolve disputes and the right to independence of colonial peoples incurred the displeasure of Australia's principal allies. It also raised suspicions in American minds about the ideological 'soundness' of the government.[444]

Meanwhile, Australian strategists and defence planners were considering where the next threat to Commonwealth security might come from, and how it could be met. The clear enemy was seen to be communism. The close attention being given by the Soviet Union to fomenting unrest in the colonies of European powers, not to mention the Chinese Civil War, raised the probability that Australia would have to face a deteriorating security situation on the Asian mainland to its north. This later became the 'domino theory', but at that time it seemed a relatively distant prospect. The British view was that the Soviets would concentrate their efforts on destabilising the Middle East, seeking to isolate the West from its sources of oil, and cutting Britain off from its Asian colonies, and Australia.[445] This appeared a more proximate concern, and Australian defence planning proceeded on the assumption that Australia would be required to provide forces in the Middle East, as she had in the two previous world wars. For its part, the Australian Government remained ambivalent on the issue and sought to restrict Australian defence commitments within an arc extending about 2400km from the Australian coastline, as far north as Malaya. In time, this became known as the ANZAM region, the acronym reflecting the several defence concerns of the Australian, New Zealand and British governments in the stability and security of Malaya.

Defence planners had a separate concern. The Australian Government was pursuing post-war reconstruction, and sought to cut other expenditures to the irreducible minimum. There had been a rapid large-scale demobilisation on the cessation of

hostilities, and the government now wanted to restrain spending on defence. The three Services, on the other hand, saw a need for investment in new programs to replace those systems that had been worn out by the intensity of war service, and to introduce newer technologies with which to face future conflicts. For the RAN this was a wholly new problem. Its pre-war and wartime structures had been dictated largely by the Admiralty: to plan a new fleet for the different circumstances of the 1950s was a challenge for staff and process. [446]

This perceived 'peace dividend' was not a problem unique to Australia. In the United States a powerful and persuasive air power lobby had developed, and it argued before Congress that new aircraft armed with the nuclear weapons provided by the Manhattan Project would revolutionise warfare.[447] The formation of the US Air Force (USAF) as a separate service from the US Army and Navy, with its own budget and strategic agenda, was one military outcome of these discussions. Accordingly, there would no longer be any need for large standing armies or navies, since air-delivered nuclear weapons would decide any conflict for the United States before these 'old' technology forces could even set out for battle. US Secretary of Defense Johnson was quoted in 1948 as saying:

> There's no reason for having a Navy and a Marine Corps. General Bradley [Chairman Joint Chiefs of Staff] tells me that amphibious operations are a thing of the past. We'll never have any more amphibious operations. That does away with the Marine Corps. And the Air Force can do anything the Navy can do nowadays, so that does away with the Navy.[448]

And, as the 1940s drew to a close, these arguments seemed to have decisive force. The prospect of fighting a land war in Europe against a resurgent and aggressive Soviet Union was as unattractive to the United States as that of confronting a triumphant Chinese Communist regime in Asia, following the establishment of the People's Republic of China (PRC) in October 1949. Land and naval forces were allowed to atrophy, while money was found for aircraft, nuclear weapons and missile programs.[449]

Meanwhile, antipathy towards senior Australian politicians by the US Administration was to have serious consequences in 1948. The US armed forces, and particularly the USN, saw very little value in sharing advanced technological information with Australia. Furthermore, Australia was seen as having lax security:

> Because of political immaturity, a leftish government greatly influenced by communistic infiltrated labor organisations, and the fact that Australian governmental activities have violated the basic security principle that classified information should not be divulged to unauthorised persons, <u>Australia is a poor security risk</u>'. [emphasis in original][450]

The upshot was that Australia was denied US-classified information from May 1948, the ban being relaxed to the supply of confidential material in December 1949 after strenuous representations by the Australian and British governments. It was dropped altogether in March 1950 with the signing of a bilateral agreement. By then Australia had a new Coalition government, and its new internal security arrangements had been in operation for nearly a year.

Of all the Allied arrangements bred by the necessity of fighting a global war in a coalition, intelligence, arguably, was less affected by the onset of peace than any other. Those involved had recognised the benefits of sharing the tasks of monitoring, reporting on and analysing intelligence, both because each of the intelligence partners had areas of special expertise which would be expensive to duplicate, and because the task was larger than any one of the partners could handle alone. Although the United States had established its role as the dominant intelligence partner, US agencies were neither able, nor willing to dispense with the contributions of expertise, resources and manpower from their allies.[451]

In Sigint, important results had come from the exchange of ideas during the war, and the network of relationships established had repaid the effort involved in their forging; there was little to be gained and much to be lost by severing them. This consideration was the principal *raison d'être* of the 1943 Britain–United States Agreement, whose terms clearly demonstrated a willingness to share the Sigint burden between 'British' and US agencies.[452] Additionally, the vagaries of radio transmission made geographic dispersal of intercept stations a most desirable advantage in post-war monitoring activities. There were areas of the world in which US agencies had little capability to collect intelligence, and others where the cooperation of the British and Commonwealth agencies significantly eased the collection burden.[453]

Several new intelligence agencies emerged from the war. In the United Kingdom, the GC&CS had changed into Government Communications Headquarters (GCHQ) with similar roles. The Central Intelligence Agency (CIA) was established in the United States out of the remains of the wartime Office of Strategic Services, and the slow and halting development of cooperative Sigint relationships between the US Services produced the Armed Forces Security Agency (AFSA) in 1949.[454] This became the NSA in 1952, the US equivalent of GCHQ.

The USN acknowledged the importance of intelligence in the support of naval operations by transferring ONI from the Administrative to the Operations Division of the naval staff in 1946. In 1948 an agreement was reached between ONI and the Admiralty DNI to establish and maintain an active exchange of operational intelligence in the eastern Atlantic and Mediterranean. This interchange was to pay dividends for the Commonwealth navies in Korea, as the US Commander-in-Chief Far East (CINCFE) was authorised to pass Allied operational intelligence to Australian, Canadian and New Zealand units under his command. The Commonwealth navies cemented their intelligence linkages at a conference in London in November 1946.

But the most important development was the decision to regularise the Allied Sigint exchange arrangements that had developed during WWII. At the London Signals Conference of April 1946, the Commonwealth partners agreed to maintain their relationships, and the Chifley Government approved Australia's participation in the Commonwealth Sigint Organisation on 12 November 1947.[455] Britain then acted on behalf of her smaller partners in negotiating the 'UKUSA' Agreement with the United States, which entered into force in 1948.

The remnants of FRUMEL, the Australian personnel who had worked in Central Bureau, and the RAN's shore wireless stations, the wireless units of the Army and RAAF, provided the framework for an excellent and respected post-war Sigint service. A Melbourne Signals Intelligence Centre was agreed at the 1946 London conference, and the organisation was brought into official existence by the Australian Government on 23 July 1946 as the Defence Signals Bureau (DSB). Its role was 'to exploit foreign communications and be responsible for communications security in the Australian Services and Government Departments.'[456]

Developments were equally significant from an intelligence analysis viewpoint. With the relocation to Japan of GHQ SWPA as the Headquarters Supreme Commander Allied Powers, there was a need to replace the intelligence service it had provided. The outcome of many discussions was the establishment of a Joint Intelligence Bureau (JIB), overseen by the Chiefs of Staff Joint Intelligence Committee (JIC) to provide military and political leaders with strategic intelligence. This bureau was to have an important influence on the development of Australian strategy towards the region.[457]

The nascent Australian intelligence apparatus required skilled personnel, much of which was departing the services for more highly paid civilian jobs with apparently better prospects.[458] The RAN eviscerated its intelligence capabilities with the disbandment of the RAN Reserve and the Women's Royal Australian Naval Service (WRANS), which had provided the majority of the intelligence personnel during the war.[459] With them went the hard-earned experience that had supported the naval operational commanders during the conflict. However, the RAN did become involved in the collection of strategic intelligence, with the attachment of officers to CCAS staff for collection on 'Saigon-Manila to the North' and on Japan, and with another officer sent as a 'political observer' in Saigon.[460]

Two other intelligence organisations deserve a short mention. An Australian Intelligence and Security Service (ASIS) was established along the lines of the wartime Special Operations Australia to covertly collect non-military intelligence in regional countries.[461] Finally, in response to concerns over Australian security voiced principally by the United States, the Australian Security Intelligence Organisation (ASIO) was established in March 1949 with the role of counter-intelligence.

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Following the end of WWII, RAN planners were confronted with a conundrum: at a time when its ships were worn out from over six years of warfare and many of its experienced cadres were disappearing back into civilian employment, the political leadership was expecting Australia to 'pull its weight' in regional affairs.[462] A modern and balanced Australian force capable of independent operations in the Southeast Asian region and beyond had to be created. In 1946 the RAN gained agreement for a building program to boost its destroyer force; two Battle class were laid down and plans for four of the larger, more modern *Daring* class were approved in principle.[463] The 1943-44 government also agreed to the opening of negotiations with the Admiralty for the transfer of two light fleet carriers to the RAN, and on 2 June 1947 the carrier program was included in the Five-Year Defence Plan announced by the government. This significant decision required a restructuring of the Australian Squadron, an increase in personnel to man the new ships and aircraft, and the improvement and recommissioning of two former RN airfields on the east coast for use by the new squadrons – a considerable staffwork, recruiting and training burden.[464]

In February 1948, Rear Admiral John Collins, RAN, became the first Royal Australian Naval officer to hold the position of CNS. Despite Admiralty suggestions that Collins was too inexperienced to do justice to the position, the Australian Government held firm in its decision to appoint him in preference to another British officer. But Collins' new post was no sinecure. By mid-1949, the RAN's segment of the Five-Year Defence Plan was foundering. The RAN's inability to attract sufficient manpower caused CNS to decommission three ships, while construction delays meant that only one of the two Battle class destroyers could be completed within the plan's timeframe. The second aircraft carrier would not now be available until 1952.[465] In October 1950, the RAN had a personnel target of 15,173 regulars and 7580 reserves to reach by July 1951, with one light fleet carrier and its carrier air group, three cruisers (obselete), five destroyers, 12 frigates and 32 old corvettes. Four *Daring* class destroyers were under construction, while five wartime destroyers of the Q class were being converted to fast ASW frigates.[466]

Accordingly, the small number of destroyers available in July 1950 caused ACNB considerable difficulties in providing ships for Korean service: only three Tribal class destroyers were in commission, HMA Ships *Arunta*, *Warramunga*, and *Bataan*, all of WWII construction. The Australian Government committed the frigate HMAS *Shoalhaven* and destroyer HMAS *Warramunga* at the outbreak of hostilities in Korea, and *Bataan* would later replace *Shoalhaven*. The only other destroyer available was the incomplete new Battle class HMAS *Tobruk*, while manpower shortages meant that crewing ships for active service caused considerable posting turbulence.[467] The RAN was as unready as most of the UN navies for action in Korea.

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Under the pressure of other strategic developments, including the Soviet Union's detonation of a nuclear device in October 1949, the triumph of Communist forces in China in the same month, and the perceived weakening of the Western position in Europe, which lead to the formation of NATO in 1949, the US Administration deemed that Korea now lay outside the US sphere of strategic interest.[468] Hurried efforts were made to create a gendarmerie-style army in the Republic of Korea (ROK) – South Korea – before US troops were withdrawn. By the beginning of 1950, there were only a few hundred American servicemen on the peninsula, including the 500-strong US Korean Military Advisor Group (KMAG). In Australia, the future direction of Japan rated a higher priority and Australia maintained its contribution to the British Commonwealth Occupying Force (BCOF), while other nations quietly withdrew their forces from that formation.[469]

There was widespread surprise and dismay in the West when the North Korean People's Army (NKPA) invaded South Korea in June 1950. There had been minor skirmishes from both sides of the mutual border, but full-scale warfare was evidently not expected, particularly by the US Government. With the benefit of hindsight, American complacency about the Korean situation was wildly misplaced. Occupied by Japan since 1910, Korea was partitioned in haste at the end of WWII, as a stopgap measure of demarcation between the forces of the Soviet Union, entering from Manchuria, and a hastily assembled US force flown in from Okinawa in October 1945. The governmental structure that remained was a Japanese model, in which Koreans were vassals – a poor basis for the rapid development of a democratic state. Koreans had served with the Japanese forces against the Allies, and had also been recruited into the forces of the Soviet Union. There was little basis for a cooperative relationship between the Americans and the people of South Korea, although the situation north of the line of demarcation was different in respect of the Soviet Union and the Democratic People's Republic of Korea (DPRK) – North Korea.

Korea lay within the jurisdiction of General MacArthur, now with the title of CinCFE. His principal preoccupations were the demobilisation of the Japanese armed forces, prosecution of war criminals, dismantling of the Japanese industrial cartels, the inculcation of democratic principles into the political structure, and the restitution of the Japanese economy. Korea did not feature largely in this process. US knowledge of Korea was lacking, and that country received a low priority in terms of intelligence gathering.[470]

Korea was not totally neglected, however, and assessments of the period by the newly established CIA demonstrate an awareness of instability and the possibility of war. Indeed, a report of 28 February 1949 contained the specific warning: 'Withdrawal of US forces from Korea in the spring of 1949 would probably in time be followed by an invasion.'[471] The report also suggested that the North Koreans might receive

assistance from Manchuria – Communist China. By June 1950 the CIA's warnings were more pointed.

> Trained and equipped units of the Communist People's Army are being deployed southward in the area of the 38th Parallel… an open invasion of the Republic by northern Korean military forces has thus far been delayed in favor of a coordinated campaign involving political pressure within Southern Korea, subversion, propaganda, intimidation, economic pressure and military actions by infiltration of guerrilla forces.[472]

By 1949, the NKPA had become a considerable force, well equipped with tanks and artillery, weapons withheld by the United States from the South Koreans.[473] Its activities were competently reported upon by the US Embassy in Seoul and the officers of KMAG, whose duty was to equip and train the ROK Army. An officer on Far East Command staff at the time was quoted as saying:

> By late 1949, talk of a North Korean invasion was almost routine in intelligence circles. By early 1950, there was a pattern of growing urgency. But it went undetected, or at least unheeded, against a more riotous background of threatening Communist behaviour in other parts of the world.[474]

The Americans were not the only ones surprised. The United Nations had created the Commission on Korea (UNCOK) with the task of overseeing the transition of the country to self-government, but which was also monitoring the state of tension between the two Koreas. Two Australian officers serving as military observers to UNCOK conducted an inspection of the border area between 9 and 14 June, and reported that the South was deployed in expectation of an assault from the north. Their report should have alerted the United Nations also to the imminence of conflict.[475]

The parallels between the Allies' disinclination to take the Japanese threat seriously a scant nine years previously and the 'surprise' of the NKPA invasion are clear. True, the date of a possible assault on the South Korea from the north was not known, but there seems to have been little doubt that one was expected. Why then were no measures undertaken to either forestall the attack or to make preparations to counter it? It cannot have been a lack of intelligence, although that has often been advanced as the reason.[476] Once again, one is compelled to conclude that MacArthur in particular, and the US political, military and intelligence communities in general, preoccupied with what appeared to be more pressing problems elsewhere, hoped that the Korea issue would resolve itself.

The consequences of the initial North Korean assault were grave. The ROK forces, for the most part, proved incapable of stemming the NKPA advance, and the poorly equipped, trained and prepared US troops flung in to stiffen their resistance soon succumbed to

superior force and tactics. The old problems of coordination of joint operations soon reappeared, as UN aircraft attacked friendly positions in the confusion. Unusually, it was the Commonwealth navies that were best positioned to respond, and did so in short order. The British Far East Fleet was in a concentration period, and had gathered for a cruise in Japanese waters. Within a week of the outbreak of fighting British and Australian naval forces were operating in support of UN forces, while the weak US 7th fleet, Task Force (TF) 77, hurriedly assembled and sailed north from Taiwan.[477]

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Although they formed part of a UN force, ships assigned by their nations to operations in Korea came under the operational command of the US Navy's Commander Naval Force Far East (COMNAVFE), headquartered in Tokyo, as part of TF 95 – the United Nations Blockade and Escort Force.[478] From the very first days of the conflict, UN naval forces were divided broadly into east and west coast task groups, with the east coast TG 95.2 under USN command, and the west coast TG 95.1 under the command of the Flag Officer Second-in-Command Far East Station (FO2ICFES), a British officer. Australian ships operated as part of both task groups, being exchanged as the priorities of their employment changed. On 3 April 1951, operational command of TF 95 shifted from COMNAVFE to C7F, creating a single naval operational commander in place of three formerly. However, there was no joint headquarters, with the army, navy, and air force chains of command operating separately.[479] A diagram from Field, *United States Naval Operations: Korea*, showing the command structure as it evolved in 1951 is at Figure 5.[480]

UN naval forces used USN practices, doctrine and tactical instructions. While this might have caused problems it did not, because many of the senior personnel involved had recent experience in the Pacific war. There is evidence that, despite a USN penchant for keeping their ships on a tight leash, with copious instructions covering every conceivable eventuality, the Commonwealth ships enjoyed considerable degrees of autonomy, even when part of a US-led TG.[481] The process of adjustment was assisted by the traditional practice of producing handover notes for one's relief and, where possible, by a face-to-face briefing. Vice Admiral Dyer, USN, the fourth Commander Task Force (CTF) 95, commented that:

> Without any reservations, the association of all these navies together has not only been a very cordial and profitable one on an official basis, and at the highest levels, but on an unofficial and ship's company level. There has been no major difficulty.[482]

The staff of COMNAVFE remained predominantly American throughout the conflict. Some RN officers were attached in specialist positions, and there was a British naval liaison officer, whose duties are somewhat unclear. However, no RAN officers were attached to the UN naval staff, nor any subordinate staff during the Korean War.[483]
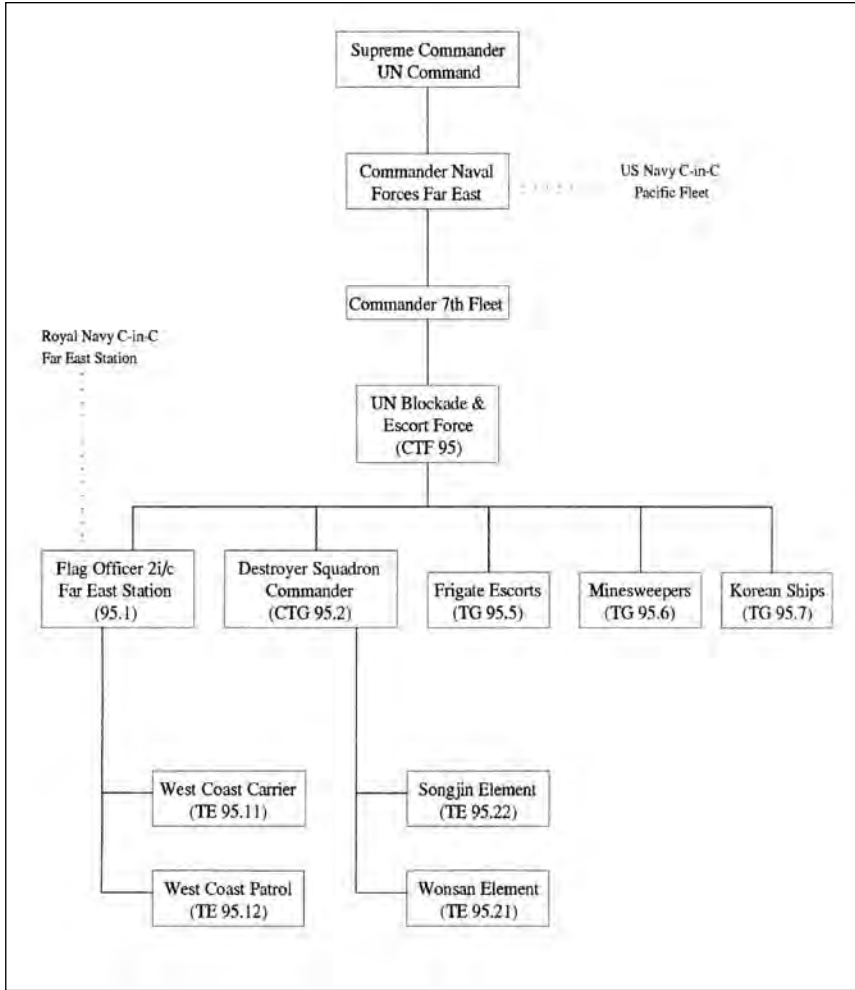
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│East Station││Commander   ││(TG 95.5) ││           ││          │
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│Patrol     ││Element   │
│(TE 95.12) ││(TE 95.21)│
└──────────┘└──────────┘
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Figure 5 - Naval Command Organisation Korean War, 1951

In retrospect, this seems to have been an oversight, but it may simply reflect the relatively small size of the RAN contribution and the shortage of suitable personnel. The experience gained by Australian naval officers was thus wholly operational, and they frequently took command of task units and task elements engaged in blockade and interdiction, but these positions were held for a matter of days only.

Correspondingly, intelligence support for the UN naval forces came overwhelmingly from the USN. In the initial stages of the war the depth of this support was not great, as the US Naval Intelligence organisation had to break out of its peacetime torpor and the cycle of neglect that had reduced its reach and capability since the end of the war against Japan. C7F had only one intelligence specialist on his staff at the outbreak of hostilities.[484] Recruiting, training, organising and re-equipping took time: it was not until 1952 that ONI and subordinate intelligence staffs could provide the level of support that the operational forces demanded. And it wasn't just a matter of numbers. Commenting on the situation, CINCPACFLT observed that, 'Too many officers in the Navy are in intelligence, not because of some special aptitude for intelligence, but because they did not have any special aptitude for anything else'.[485]

It was intelligence as fundamental as hydrographic and topographical information that was lacking. The USN had discussed a collection program on Korea but it was never started. CTF 95 Dyer commented that the lack of information was 'Appalling!' Once hostilities began, special problem areas were air intelligence, lack of photographic interpreters and extreme shortages of Korean and Chinese linguists. Commander Task Group (CTG) 95.1 made continual comment on the paucity of meaningful intelligence reaching his force from COMNAVFE and, by default, the intelligence responsibility for briefing, supporting and debriefing British Commonwealth ships fell to FO2ICFES's small staff.[486]

The situation regarding the source of Sigint used by UN commands is less clear. COMNAVFE was authorised to pass appropriately disguised Sigint to units under his command, but the provenance of this information has not been identified. Commentators on British intelligence during the period imply that GCHQ provided a great deal of intelligence, particularly on Chinese intentions and activities, but there are no attributable references provided to enable these claims to be confirmed.[487]

This is not to say that operational commands were bereft of intelligence, but the quality was patchy, and the lack of inter-service coordination in reporting and plotting friendly forces led to wasted effort and casualties. To obviate this, by November 1950 a Theater Shipping Surveillance Centre had been established at COMNAVFE, using all-source input, but primarily that provided by a dedicated wing of UN surveillance aircraft.[488] But the most pressing requirement was for hydrographic information, just as it had been in SWPA.[489]

Many of the available charts were based on Japanese information, some uncorrected for 20 years.[490] In the circumstances of the Korean War, information on terrestrial topography was almost as vital. Naval units supporting UN land forces or interdicting Communist supply lines and installations needed accurate information on railways, bridges, roads, tunnels and other military targets which was also in short supply.[491] Some of this could be supplied from ROK sources, but it was virtually non-existent on North Korea.[492]

Photo reconnaissance was clearly a vital part of the UN intelligence collection plan, and the first USN assets were deployed onboard USS *Philippine Sea* in July 1950. These used piston-engined aircraft and cameras optimised for photography from only 1500 metres, well within range of Communist AA fire. It was not until June 1952 that the carriers assigned to Korean operations carried a full outfit of jet aircraft equipped with cameras capable of operating at the safe height of 4500 metres.[493] By that time Communist skills in disguising targets or, if this was not feasible, their construction of sophisticated AA defences, made the collection of intelligence from low level less useful and highly dangerous.[494] Naval customers also had some recourse to the reconnaissance facilities of other Services through the Joint Operations Center attached to the US 5th Air Force. This center was the closest to a joint headquarters that existed in Korea. Operated by the USAF, it linked the US 8th Army and CTF 95, and was responsible for allocating and directing the UN air effort. One RN officer was attached to a predominantly American naval staff element, which screened intelligence for naval use and raised requests for coverage of targets of naval interest.[495]

Useful intelligence could be gained from submarine periscope photography. COMNAVFE had four submarines under his command at the start of the war. Although two were briskly dispatched to patrol the La Perouse Strait to watch for departures from the Soviet naval ports of Nakhodka and Vladivostok to the north, one at least was used in the intelligence-collection role continuously.[496] Collection was only possible in the deeper waters off the east coast of Korea, but patrols were also conducted off the north Chinese coast, where the Soviet Union was developing the port of Dalian under the Sino-Soviet Treaty of 1950.[497]

As the war progressed, electronic warfare (EW) information on NKPA and other Communist emitters assumed a higher priority in intelligence collection. The USN began flying EW patrols off the east coast of Korea in 1951, and by late 1952 this was a regular patrol line. In November 1952, C7F recommended that an Army EW site be established on Yodo Island to back up this collection effort, and by January 1952 all EW-equipped ships in the UN Naval Command were directed to watch for radar signals from shore batteries and to conduct EW surveillance as a secondary mission while on patrol.[498]

However, in the end, it was human intelligence that made up the bulk of the information used in the operations in which RAN destroyers and frigates were engaged. At the formal level, a team of officers was detached from the COMNAVFE intelligence staff in October 1950 to collect information on ports, harbours and coastlines of amphibious interest.[499] To this data, ships of the operating forces added their own collected during the course of their operations. Further intelligence was gleaned from ROK Navy units, which operated in conjunction with the Australians and were adept at spotting unusual activity that might suggest infiltration from the north into their territory.[500] This was supplemented by information, often unassessed, provided by pro-ROK guerrillas. Because they could mingle unnoticed in Communist-held or -dominated territory, they were often the best sources of intelligence available, although the reliability of their information was uncertain.[501]
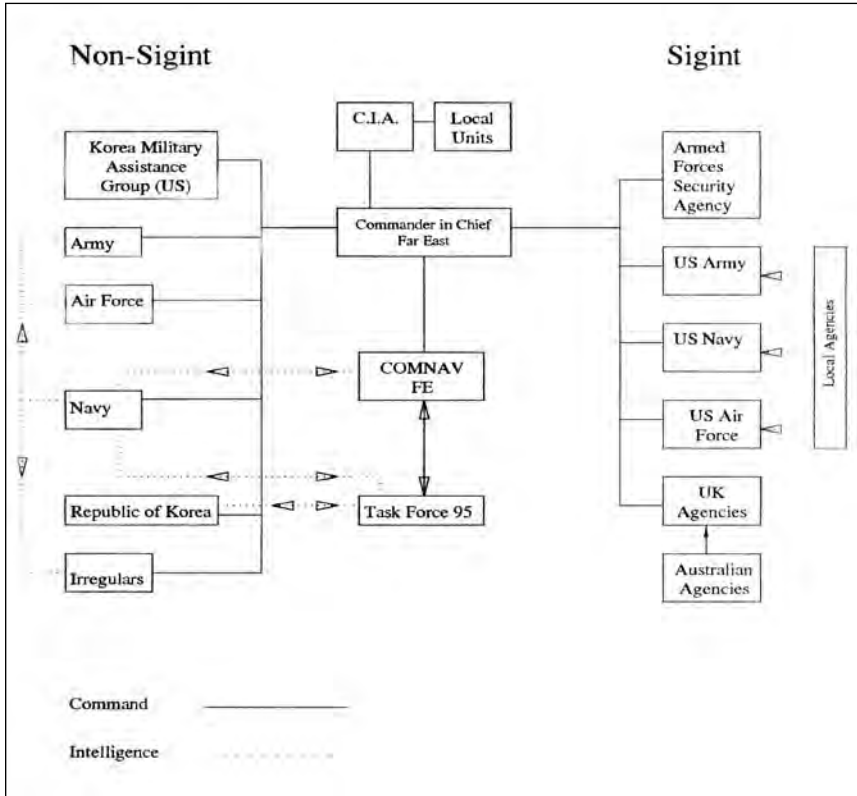
Figure 6 - UN Intelligence Organisation Korea

Sigint's contribution at the maritime operational level is unclear, as released official records of the period are sparse.[502] In fact, there were few US Sigint resources in the Far East in the period leading up to the opening of hostilities, and their principal target was the Soviet Union.[503] There were, however, other Allied stations near Korea, particularly the British Sigint stations in Hong Kong.[504] At the outbreak of the war, there were few US facilities that could be shifted to the NKPA Sigint task, an assignment made triply difficult by the almost complete lack of Korean linguists in the US forces.[505] Further, at least in the initial stages of the fighting, the high state of NKPA radio security also frustrated Allied Sigint collection, until their rapid advance and the UN's destruction of terrestrial communications facilities forced the Communists to use radio.

By October 1950, the ramshackle Sigint attack on NKPA communications by the United States and South Korea had begun to yield important information, but the entry of the

Chinese into the war that month vastly complicated the problem.[506] Only in December 1950 was a break made into the Chinese People's Liberation Army (PLA) tactical codes, and even then the shortage of translators seriously affected the flow of intelligence to operational commanders.[507] It was not until 1952 that senior UN land and air force commands had access to the kind of Sigint that had helped to win the Pacific War. It is not possible to judge how much (or little) of Sigint product trickled down to British Commonwealth units, but it seems unlikely that individual ship commanding officers were provided with Sigint.

Overall, commanding officers and other operational commanders probably had cause to be somewhat disappointed by the level of intelligence support they received from senior headquarters. There was a feeling that the concentration of intelligence staff in Tokyo produced a reduced appreciation of the needs of ships, and that this resulted in inadequate briefings, not only on the enemy, but also on friendly operations which might impinge on the blockade as well.[508] A diagram of the UN intelligence organisation in Korea, compiled by the author, is at Figure 6. As many were to find, intelligence was a local thing and had to be sought on the spot, filled with ambiguities though it might be.[509] While the outline of the intelligence jigsaw was clear, there were many pieces missing, especially where fine-grained information on the enemy was most keenly needed.

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So operational intelligence support in Korea fell short of Pacific War standards, but the nature of the sea war in Korea was also different. Far from the visions of the strategic planners, Korea harkened back to the earliest forms of maritime warfare. UN naval forces attacked NKPA modes of supply by gunfire, aerial bombardment and with raiding parties.[510] They escorted Allied convoys, provided naval gunfire support to regular and irregular forces, and delivered amphibious assaults. In sharp contrast to WWII, naval actions tended to be affairs of single ships or small groups of smaller ships. The ability of the UN Naval Command to respond to demands made on its forces rested on its rapid assertion of sea command in the Korean theatre, a command seldom challenged by the Communists and never lost.

These modes of maritime warfare were dictated because Korea is a peninsula, by the almost complete absence of any maritime adversary, and by the very few occasions when any threat, except for the mine, emerged for the UN naval command.[511] Although there was always a lingering concern that support to the NKPA could come from the Soviet Navy, or even from the PLA Navy and Air Force, once the Chinese 'volunteers' had made their entry to the war on land, these threats did not eventuate. The North Koreans, however, proved themselves adept at laying mines.

Map 16 - Korean Peninsula

The United Nations made plans to 'sever' Korea from the Asian mainland by a concentrated program of gun- and air-delivered ordnance aimed at destroying the ability of the NKPA and Chinese to resupply their forces. Later, as ceasefire negotiations dragged on, naval forces were employed to bolster UN territorial claims by subjecting areas of the land to effective control by naval gunfire. An outline map of Korea and the general areas of UN maritime operations taken from Farrar-Hockley, *A Distant Obligation*, is at Map 16.

Operations on both coasts presented difficulties. Charts were poor or non-existent and their accuracy, especially on the west coast, was doubtful. In particular, the navigability of rivers and channels was not known. Under these conditions, the existence of minefields could not be established with any certainty, and even well-laid minefields were likely to 'walk' under the influence of the tides and to present unexpected hazards. Enemy defences were mobile; artillery could be placed to interdict shipping channels with comparative ease, and possibly without their presence being noticed until they opened fire.

Set against these difficulties, the UN forces had the services of Koreans from both north and south who waged guerrilla warfare against the NKPA and the Chinese (and probably between themselves). At most times the United Nations also maintained total air superiority over the mainland up to the border with Manchuria, and air reconnaissance was a fruitful source of intelligence. However, the NKPA also quickly proved adept at camouflage and concealment and, as its air defence systems grew and matured, they were often able to drive off UN air attacks and to deter close reconnaissance.

Finally, weather had its effect on naval warfare. Typhoons disrupted UN operations and damaged ships, while the extreme cold of the Korean winter made life difficult and uncomfortable for ships companies, particularly in Australian ships with minimal heating arrangements, while rendering their use of weapons subject to failure, delay and breakdown.

The naval war was inextricably linked to the phases of the land war. At first, naval forces escorted troops and supplies to the beleaguered UN forces stemming the Communist assault and provided naval gunfire support (NGS) and other interdiction. The principal action was the UN amphibious landing at Inchon in September 1950, which led to the collapse of the NKPA position in South Korea. The second phase was in support of the advancing UN land forces as they forged northwards towards the Yalu River border with China. The third phase was from November 1950, again in support of those forces as they retreated in the face of attacks by the PLA, including interdiction and evacuations.[512] The fourth phase ran from the stopping of the Chinese offensive in June 1951 to the eventual armistice in 1953.

At the outset in July 1950, Rear Admiral Andrewes, USN, defined the task of his force as the enforcement of a blockade of the coasts occupied by the North Koreans, the prevention of infiltration by sea on coasts held by the South, and the provision of naval support to UN land forces.[513] By April 1951, at the time of the reorganisation of the

command structure for UN naval forces, the missions assigned to TF 95, in broad order of priority at that time, had expanded to include blockade, NGS, bombardment, mine warfare, escort duties, ASW, coastal fishing surveillance and control, and intelligence collection.[514]

Australia's naval contribution to the UN forces in Korea was modest but nevertheless, important. As O'Neill said, it 'had no profound influence on the course of the war'.[515] However, for the RAN it was an important operational experience, not to mention a significant test of logistics and maintenance support. The incidents selected to illustrate the operations undertaken by RAN ships and the contribution of intelligence thereto will demonstrate that, although operationally it was a very different problem from WWII, certain enduring lessons remained valid.

## Naval Warfare on the Korean East Coast

The east coast of Korea from the 39th to 42nd north parallels contains the vital ports of North Korea and supports a great deal of its industrial plant. Important road and rail communication links run along the relatively narrow coastal plain, backed by rugged mountains that rise in the north to over 3000 metres. The 200-metre line runs from about 30nm offshore near Wonsan in the south to less than 10nm off Chongjin in the north. As a result, North Korean ports are easily blockaded, there are rich pickings for an aggressive blockading force, the entire coastline is accessible to NGS, and mines become less of a concern the further north one moves. These features dictated the nature of the UN Naval Command's war on the east coast.

CTF 77 deployed his fast carrier forces off the east coast for striking North Korean targets, and to provide close air support on the right flank of the UN land forces. The carriers, teamed with NGS forces of UN cruisers and destroyers, and battleships on occasion, systematically wrecked the North Korean industrial infrastructure the length of the coast, almost to the border with the Soviet Union. Wonsan, the largest port in Korea was the target of an amphibious landing, and the object of a UN naval siege that lasted 841 days. In December 1950, Songjin and Hungnam were the scenes of major evacuations of UN forces in the wake of the first Chinese attack.

The east was predominantly, but not exclusively, an 'American' coast, and Commonwealth carriers, cruisers and destroyers operated there as elements of TG 95.2 from time to time. East coast islands were important to the UN as bases for the insertion of agents, raids into enemy territory or the collection of intelligence. Australian ships supported these missions and assisted in defending the islands against North Korean attempts to capture them.[516]

Between 25 February and 8 March 1952 HMAS *Warramunga* assumed the duties of CTG 95.22, with responsibility for the Northern Patrol line between Songjin and

Chongjin, and the defence of the South Korean base on the island of Yang Do, northeast of Songjin.[517] Before her arrival, an unsuccessful attempt had been made from the mainland to capture the latter. As CTG, *Warramunga* had one US destroyer-minesweeper and several ROK Navy minesweepers under her command, and her main duties were to interdict coastal transport, bombard targets in Songjin and Chongjin and offer support to the Yang Do Koreans.[518] There was an ROK Navy patrol boat base at Yang Do, but it is not clear that these units were also part of TG 95.22.

The issues confronting the *Warramunga* command team, apart from the weather, which was extremely cold and snowy, were the disruption of enemy rail traffic, the location and destruction of enemy coastal batteries and the effective surveillance of the four kilometre-wide channel between Yang Do and the mainland.[519] Mines were a potential problem in the Yang Do channel, and there were numerous shore batteries protecting her two target ports. A large number of railway tunnels in which Communist trains could shelter from naval interdiction were strung along the coastline.

The intelligence *Warramunga* had to support her operations was varied and of differing quality. First, her command team had been briefed by FO2ICFES intelligence staff at Sasebo before sailing, giving them the benefit of nearly a year's experience gained by the UN on this length of coastline. This provided the locations of worthwhile targets, enemy gun positions and vulnerable communications links.[520] Thus, on 1 March *Warramunga* was able to demolish a vulnerable railway bridge that had been repaired by 'cribbing' supports out of sleepers. Second, chart inaccuracy was not an issue, and the conventional wisdom was that no mines could be expected in waters deeper than 180 metres. This advice, naturally, applied to moored and influence (ground) mines. Drifting mines were another issue, as Soviet designs did not deactivate when their mooring cables parted.[521] Third, the command team would have expected no surface opposition, with the possible exception of armed junks. Air attack was also unlikely, with the carriers of TF 77 and their combat air patrols only 60nm to the east. By 1952, with armistice talks underway at Panmunjom, the possibility of submarine attack could only be regarded as remote.

*Warramunga* was aware of the US carriers to seaward and of the UN units in her vicinity.[522] Because of the constant changing of units assigned to the Northern Patrol, the command team would not have been familiar with the calibre or capabilities of these ships. There were also communications difficulties, apparently caused by the Australian ship's lack of the US codebooks used within the Task Element (TE) of the task force. Nevertheless, a way was found around this problem and the TE went about its duties with apparent success. *Warramunga* and the destroyer USS *Doyle* bombarded Chongjin on 2 and 3 March, the first attack involved *Warramunga* in an artillery duel with a North Korean battery of five guns at ranges between three and five nm. This was a spirited encounter, with the destroyer withdrawing stern first to present the smallest (and most dangerous) target to the Korean guns.[523] The Yang Do channel was kept swept of mines,

and no repeat attack on the island was launched from the mainland. The intelligence provided *Warramunga* was clearly sufficient to support these results: those pieces of the jigsaw were in place.

Any feeling of satisfaction the ship might have gained from her operations was dispelled by a visit by CTF 95 on 6 March. Vice Admiral Dyer was concerned that the NKPA attack on Yang Do had not been repulsed before a lodgment had been made, and seemed indignant that the TE had not expended enough ammunition in its bombardment and interdiction roles. For the former, *Warramunga* bore no responsibility, but under the CTF's goad a further bombardment of Songjin and Chongjin took place, during which a premature burst in one of her forward guns reduced *Warramunga's* available armament to two mounts – four guns. Dyer was obviously satisfied that the Australians were doing their best and relaxed on passage in *Warramunga* back to Sasebo. He later ensured that her commanding officer, Commander JM Ramsay, RAN, was awarded the US Legion of Merit for his conduct of the patrol.

After repairs to a leaky condenser, and replacement of her forward 4.7-inch gunmount in Japan, *Warramunga* returned to the Northern Patrol on 11 May and, until departing the area on 28 May, participated in a series of heavy attacks on Chongjin and Songjin. She escorted the battleship USS *Iowa* to Chongjin, carrying out counter-battery fire as the big 16-inch battleship guns steadily demolished the port, supported by air strikes from two US carriers. She also gave close support to the minesweepers clearing a channel to allow *Iowa* to safely approach the port to close range, again engaging shore batteries firing on the UN vessels. On this occasion, 16 May, *Warramunga* had an aircraft to spot and correct her fire, which resulted in four enemy guns destroyed and six damaged. She also attacked railway lines along the coast.

The intelligence support for this second tour of the Songjin–Chongjin patrol was largely provided by the enemy. *Warramunga* was responding to attacks by shore batteries, whose positions were identified the moment they opened fire. Engagement ranges were short – 7500 metres – so little other intelligence was required. Judged by the results obtained by the ship, the available intelligence was used effectively.

Other RAN ships served in the same area. From 20 December 1952 to 3 January 1953, Captain GGO Gatacre, RAN, in HMAS *Anzac* commanded TU 95.22.2, comprising four US ships as well as his own. Their main activity was counter battery fire, a difficult task as by this time some of the NKPA sites were radar controlled, and the Communists had improved the quality, number and calibre of their coastal defences in late 1952, making the bombardment task more hazardous for the blockading ships.[524] *Anzac* repeated this experience from 12 to 26 May, and her relief, *Tobruk*, recorded the final RAN action on the east coast, in sinking a mine-laying junk north of Yang Do on 16 July.[525]

It was not only navigation that was simpler on the east coast. The ownership of offshore islands was clear cut and the requirement for intelligence, especially after the UN Main

Line of Resistance had been established on land, was correspondingly less demanding. With the power of TF 77 backing up the destroyers, there was little damage the enemy could do, except through mining or direct gunfire: RAN ships managed to avoid falling victim to either threat. That said, the coast artillery was dangerous. *Warramunga* was lucky not to be hit by anything more serious than shrapnel at Chongjin on 2 March as a USN destroyer was hit and suffered fatal casualties at the hands of Songjin shore batteries on 7 May. In many ways, the Northern patrol of the east coast was an ideal place for destroyers, with deep water close inshore, plenty of sea room to retire to, and any structure able to be taken under fire as a legitimate target.

## Naval Warfare on the West Coast

Most of the action for RAN ships in Korea took place on the west coast. Here the hydrographic and topographical conditions imposed a different style of operation upon TG 95.1. In coastal regions the East China Sea is shallow, with a ferocious rise and fall of tide. The coastline mainly comprises long and narrow shifting channels between mud banks and sandbars, easily mined and difficult to navigate. There are numerous islands from which artillery can fire on ships, and mining and other raids launched. There is neither much sea room nor opportunity to navigate clear of enemy fire. One other difference was that ROK Navy units played a larger role in operations than on the east coast, and there was a necessity to integrate their units into the overall plan for the blockade.[526] This integration brought benefits to the task group in the form of better intelligence on enemy positions, movements and intentions.

However, there were drawbacks to these west coast island bases. Most of them were populated, usually by Koreans with an affinity for the southern cause. To these had been added large numbers of refugees from the north. The blockade and restrictions on fishing meant the UN naval command was obliged to take on a food supply role to keep these people fed, and their presence placed restrictions on the use of UN firepower in the defence of the islands. Finally, to use Mao Zedong's phrase, the Communists 'could swim in the sea of the people.' UN commanders had no real idea whether purges carried out by Korean authorities were exposing Communist agents or merely settling old scores.

In August 1950, just days into the war, HMAS *Bataan* fought an artillery duel with a North Korean shore battery at the entrance of Haeju Bay, after the ship had closed the coast to investigate several large junks.[527] Australian ships were provided distance support at Inchon, and they supported the advance of the UN armies up the peninsula with NGS and resupply. During the Communist advance in early 1951, *Warramunga* participated in the gallant action to evacuate Allied troops from Chinnampo, which involved a night passage up the poorly charted Taedong River and largely unlit estuary. When the United Nations advanced again, TG 95.1 carried out a number of feint pre-landing bombardments

at Inchon. But their work largely consisted of enforcing the blockade, providing NGS to the left flank of the land forces, providing escorts for carriers, and participating in minor operations designed to seize and hold islands on the enemy's right flank. A significant departure from this routine was the Han River operation.



View from HMAS *Waramunga* as she steamed through ice at the entrance to Chinnampo

## The Han River Operation

On 10 July 1951, truce negotiations began. As part of its bargaining strategy, the UN command decided to use its naval power to mount a series of operations aimed at destroying and harassing Communist formations and positions. This was designed to encourage the Communist side to come more quickly to an agreement on the line of demarcation. Kaesong, the site of the negotiations, had been part of South Korea before the start of hostilities, but the area of the Yonan Peninsula north and east of the Han River estuary abutting the city was now in Communist hands.[528] It was thought that a naval bombardment of the area could act as a persuasive influence on the Communist negotiators.

In common with most west coast estuaries, the Han River entered the sea in a series of long and tortuous channels through mudflats. These needed almost continuous surveying to ensure safe navigation. The 9-metre tidal range created at its peak tidal streams of 8 knots, while in most channels at low water the depth was often only 4.5 metres. Just getting through the channels of the Han estuary was a major feat of navigation and seamanship. Deep water from which larger ships could operate with safety was outside effective gun range of the target areas on the Yonan Peninsula. 'Persuasive' bombardments could thus only be carried out by smaller ships of shallow draft and high manoeuvrability, but their smaller gun calibre meant that they would have to operate well up the channels and within enemy artillery range. Operation HAN, as this plan became known, was a job for frigates.

Although CTF 95 Vice Admiral Dyer, gave Operation HAN his highest priority, Rear Admiral Scott-Moncrieff, RN, commanding the forces involved, remained sceptical of the rationale for the operations. It was a highly risky enterprise. Surveys showed that there were only two channels through which his ships could approach their firing positions, each exposed to enemy fire and both involving the risk of running aground. In the case of a ship damaged or stopped by enemy fire, or aground on a falling tide, recovery would be difficult if not impossible.[529] The ships employed on bombardment duties in Operation HAN were all from the British, Australian and New Zealand navies. ROK Navy small ships assisted with survey and navigation duties, while USN and RN carriers provided spotting and air-to-ground support. The loss of a UN ship to the Communists would not only represent a severe blow to UN naval pride – with the consequent effects on its negotiating position at Kaesong – but would have dire effects upon the navy to which it belonged. None of these could afford to lose a ship, and the political case for a replacement might be jeopardised by the loss. Scott-Moncrieff thought the UN strategists had no conception of the difficulties inherent in Operation HAN and there is some suggestion that the USN regarded this opposition as a case of the Commonwealth forces dragging their feet in the fighting.[530] Some of the navigational problems are depicted on the diagram of the Han River operations area at Map 17, which is taken from Capes, *HMAS* Murchison.[531]

Nevertheless, the operation was ordered and a preliminary survey completed by 26 July.[532] Channels were charted and marked, and firing points selected. At the closest point to land
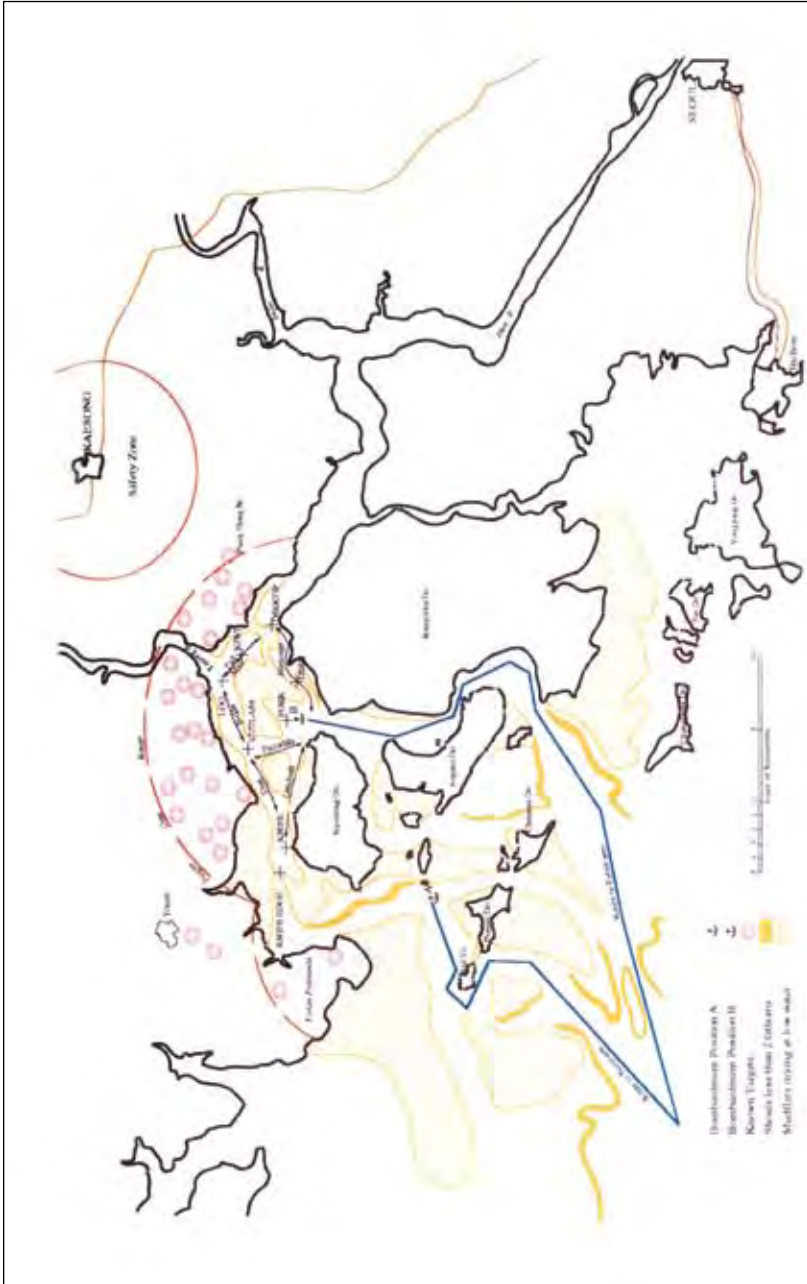
Map 17 - Han River Operations Area, 1952

the frigates could attack targets up to eight miles inshore. Surveys of the channels were not completed until mid-September, with the frigates providing suppressive fire to protect their boats' crews from sniping from the shore. The initial Communist reaction, apart from this small-arms fire, was to fall back, but this was not to last. Beginning in early August, Scott-Moncrieff's ships provided a daily bombardment service on targets assigned by UN Command, firing their first bombardment around 1015 each morning to coincide with the daily resumption of truce negotiations. They gradually accumulated knowledge about the channels and their target areas, and steadily attracted more response from Communist forces. The frigate *Murchison* amassed the greatest total of days (61) on station in the Han by the time the operation was suspended in January 1952.

On 28 and 30 September 1951, *Murchison* was involved in two particularly deadly duels with enemy shore batteries. By coincidence, Vice Admiral Dyer was embarked on the first occasion and witnessed at close hand the hazards faced by the ships as the frigate came under heavy and accurate fire at a range of only 2000 metres.[533] On the second occasion, the weight of the enemy attack was even heavier. The guns were concealed in farmhouses, and Communist T34 tanks were involved, firing 75mm armour-piercing shells. Because of their high muzzle velocity, some passed completely through the ship.[534] Several shells struck the frigate, one exploding in the engine room, fortunately without damaging the steam lines. Another hit put one of the ship's Bofors guns out of action. Miraculously, *Murchison*'s human casualties were only three wounded, one seriously. The Communists came off worse from the engagement.[535]

The supporting intelligence Lieutenant Commander Dollard, RAN, and his command team had during the four months of Operation HAN was not comprehensive: the jigsaw was relatively complete, but there were missing pieces in key areas. They certainly knew their area of operations with a high degree of accuracy, although the possibility of a new navigational hazard from a shift in the channel remained throughout the period.[536] There was also a possibility of mines laid at night by the Communists, or that the buoys positioned by the UN ships might have been moved by the Communists at low tide. There was a two hour tidal window, during which the ship had to manoeuvre into its firing position, complete its fire mission and exit the channels to sea.

Dollard and his team did not know where the Communists might have concealed an artillery ambush along their route to the firing positions, nor what calibre guns they might have to contend with. They had to assume that the enemy would have good intelligence as to their intentions and of the firing positions selected, and would have registered those positions for their own artillery fire. The regular pattern of bombardments ordered by the UN Command removed any element of surprise from the frigate's operations.

Targets for each bombardment mission were provided by aerial reconnaissance or ROK guerrillas and assigned by CTF 95. *Murchison*'s fall of shot was usually observed by an airborne spotter, so the frigate could be confident that the ammunition being

expended was finding targets.[537] Dollard knew the capability of his ship and its company: *Murchison* had the experience of destroying an enemy tank at short range on 24 July 1951 while on operations in the approaches to Chinnampo.[538] He knew air support could be summoned in the event that he encountered difficulties, but also that it could take time to arrive. Surface naval support in the circumstances was unlikely to arrive within the period of the engagement.

Despite the uncertainties and limitations of the intelligence provided, it was applied consistently throughout *Murchison*'s participation and enhanced by the skill and courage of the ship's company. But the value of Operation HAN to the UN cause was somewhat ambiguous, although it had the desired affect at Kaesong: the territory was deemed to be in UN hands until the talks collapsed.[539] For a while the frigates were able to demonstrate UN control of the Yonan Peninsula and the contiguous zones nearer to Kaesong, but the Communist artillery counter-offensive gradually forced the ships to use more distant anchorages. This reduced their bombardment effectiveness and increased the likelihood of their incurring damage. The topography of the Han River circumscribed the capacity of the ships to manoeuvre out of harm's way, something no commanding officer accepts with equanimity. And the operation did tie up a considerable number of TG 95.1 resources that might have been employed more effectively elsewhere.



The frigate HMAS *Murchison*

Despite the arguable strategic results of the operation, there can be no doubt about the impression the conduct of *Murchison* and her consorts had upon higher UN command.[540] It is worth quoting part of Rear Admiral Scott-Moncrieff's farewell signal to the Australian frigate as she left Korea at the end of her tour:

> I dislike the idea of continuing the war without *Murchison* but I will have to accept it now as a fact. You have been a tower of strength and your good name will always be associated with the infamous Han. No ship could have done better. For fine seamanship and steadiness under fire you have proved yourselves beyond reproach.[541]

## Defence of West Coast Islands

Following China's entry into the war in October 1950 and the southwards advance of Communist forces down the peninsula, possession or control of the many islands scattered off the west coast became a defence issue for the UN Command. Admiral Andrewes was concerned that these islands would fall into Communist hands and be used as bases to launch attacks on UN ships.[542] In UN hands, they could be used as intelligence, radar and communications bases, and could also be denied to the enemy. These issues were not lost on the North, and the NKPA was assigned the task of the seaward defence of the flanks of Communist-held territory.[543] The threat that UN possession of these islands posed to the North can be seen from the map at Map 18.

In the final phase of the war the UN Naval Command participated in a range of activities to remind the Communists of the vulnerability of their seaward flanks to interdiction, or even amphibious assault. Not only did this strategy compel the enemy to maintain significant forces on coastal defence duties, but it was felt that it could influence the Communist negotiators to seek a quicker settlement at the negotiating table in Panmunjom.[544] Often these activities involved no more than bombardments of Communist positions, and the task of 'train-busting' on the east coast. However, on the west coast the nature of the coastline, and the existence of disputed islands in the Gulf of Haeju, led to a series of naval operations conducted in support of guerrilla bands, which carried out harassment raids and intelligence collection in enemy-occupied territory.

For the most part, these raids were carried out by small bands, sometimes led by UN officers, usually at night and only when the strength of the defences were assessed as weak. In mid-1952, however, it was decided to launch a major daylight assault on the Ponngu–Myon Peninsula to hold it for as long as possible, and destroy enemy defences, recover anti-Communist villagers, and take prisoners. This was Operation ROUNDUP, the idea having been proposed by the guerrillas on 11 May.[545]
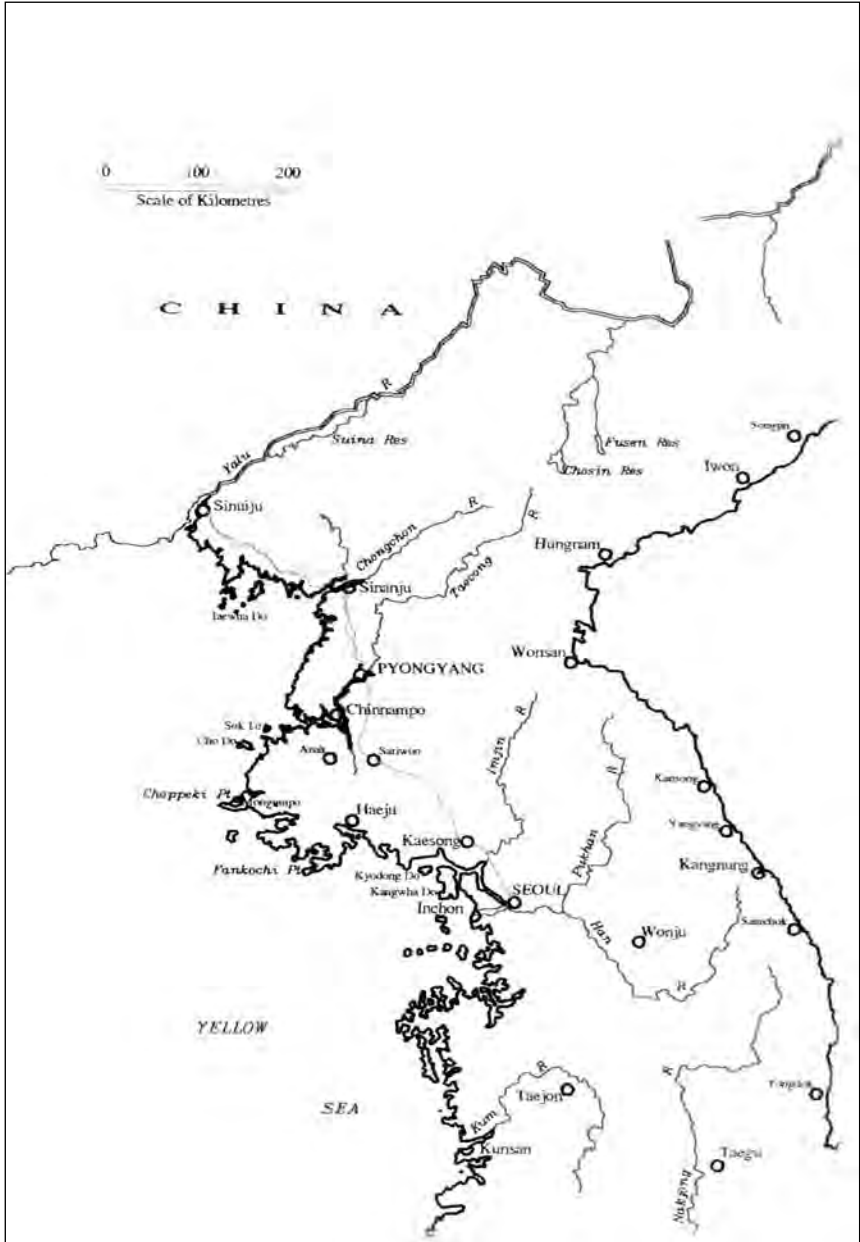
Map 18 - Korean West Coast

The command ship for the operation was *Bataan* (Commander Bracegirdle, RAN), operating as Commander Task Unit (CTU) 95.12.4. Acting in support of the CTU were aircraft from HMS *Ocean* and a US Marine Corps NGS spotting unit on an island within range of the peninsula. The assault force comprised a US-officered detachment of 120 'Wolfpack' guerrillas (Blue Force), to be landed first to seize and hold the evacuation beach on the southern extremity of the peninsula. Following that assault, 300 men of the main force (Red, Yellow and Green forces) would assault the peninsula from the northeast. The land element would be landed and recovered by Korean junks. Embarked in *Bataan* were an American liaison officer with Korean radio operators and interpreters. The plan was simple, *Bataan* would begin the operation by bombarding enemy positions with her six 4.7-inch guns to cover the landing by Blue Force from its junks. The destroyer would maintain suppressive fire as required by Blue Force, then switch target to the main assault area under Marine Corps spotter direction. Under *Bataan*'s control, *Ocean*'s aircraft would bomb the beach prior to the landing by the main force.

Bracegirdle and his team had quite reasonable intelligence to support this audacious raid. Friendly naval force locations, and the extent to which they could support his mission, were known. Aircraft ordnance was optimised for beach assault; bombs and rockets for destruction and suppressive fire, and 20mm cannon fire to follow up.[546] Bracegirdle knew the capabilities of his own ship and its weapons systems: all members of the Gunnery Fire Control Team were recommended for and received a Mention in Dispatches for their part in ROUNDUP.[547] However, the quality and likely efficiency of the Wolfpack guerrillas was not known, particularly as these irregular units had been trained principally for stealthy attack in darkness, and not for daytime assault on a defended position.

Of the enemy forces, Bracegirdle and his team were quite well informed. The guerrillas had surveyed the target area previously, and positions identified as suitable for NGS bombardment were plotted. The experience of other ships conveyed via the handover note system made the *Bataan* team aware that the Communists were adept at concealment and capable of moving field artillery from one position to another under cover of darkness. They recognised the enemy gunners' propensity for holding their fire on surface targets until after the morning UN armed-reconnaissance air patrol had departed the area. The abilities of the Communist gunners had been demonstrated to *Bataan* when a 75mm shell hit the ship a few weeks previously. There was always the possibility of a retaliatory attack by Communist aircraft, especially the awesome MiG-15, whose bases in China were perhaps 20 minutes flying time from Haeju Gulf. These had not attacked ships, but no destroyer commanding officer would relish the challenge of defending against such fast-moving targets.[548] Bracegirdle faced no surface threat, mines being the only other concern. In short, Bracegirdle's intelligence jigsaw was complete in all important respects.

The operation went well, if not to plan. Blue Force landed successfully against light opposition in an area already bombarded by *Bataan*, but the main body was delayed in crossing to the peninsula, and the supporting strike aircraft had to be held in orbit until their fuel was low. Their suppressive fire was therefore delivered before the main body had closed their landing zone. A Communist counterattack in battalion strength was broken up by *Bataan*'s guns, and the raiding parties were then free to proceed to their objectives. Spotting of NGS by the Marine Corps post and by Yellow Force was excellent and, through the operations plot kept by the US liaison officer, Bracegirdle was kept well informed of the progress of the action ashore. The intelligence provided on the strength and location of the NKPA proved accurate.[549] The guerrillas withdrew under covering fire from *Bataan* when additional NKPA troops arrived on the peninsula.

The only downside of Operation ROUNDUP was in the results. Looting and destruction were visited on the Communists, and ten families with affinity for the South were brought off. But the guerrillas also wasted time in bringing off livestock and food, and they executed all but one of the 30 prisoners they had taken. This violated a principal objective of the raid.[550] Although the guerrillas had proven capable of undertaking a major daylight raid, their reliability in carrying out orders was thus suspect. This piece of intelligence had to form part of the planning process of all future similar operations. However, intelligence had clearly played a key role in ensuring the success of this one.

Operation ROUNDUP was a small action, but typical of many conducted by the west-coast forces. Besides the clear advantages of UN possession of the islands, there was the benefit that maintaining this hold did tie up the NKPA in coastal defence duties. The struggle to protect and use the islands continued throughout the war, with the United Nations only ceding ground where the effort required to keep control either exceeded its material capability, or where the value of more 'real estate' was questionable. Successive TG 95.1 commanders were wary about accepting responsibilities that would tie their ships into static defence, particularly where UN artillery batteries could do the job more cheaply.

The terms of the armistice reached at Panmunjom in 1953 called for UN evacuation of islands lying to the north of the new armistice line. The final act of the west coast blockade was the evacuation of their own forces, and those Korean citizens who wished to live in the South from what would shortly become enemy territory.[551]

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# HMAS *Sydney* (III) in Korea, 1951–52

It had not been the intention of either the Australian Government or ACNB that the aircraft carrier HMAS *Sydney* (III) should serve in the UN Naval Command in Korea.[552] That the ship did participate is due almost entirely to pressure exerted by the Admiralty, much of it directed on a personal basis from the First Sea Lord at the Australian CNS. In the Korean theatre, aircraft carriers were in high demand to supplement a stretched US 5th Air Force and provide the tactical support necessary to enforce the blockade of the peninsula. Operating at distances of between 50 and 80nm from the coast, which was much closer to the front-line than many terrestrial landing fields in UN hands, carrier aircraft could be over their targets sooner and stay longer – benefits highly prized by UN ground commanders under enemy pressure. However, their cycle of operations – about ten days on station and ten more to, from, and at a replenishment and repair base in Japan – required at least two carriers, and this operational tempo could only be maintained for about six months. At the end of that time the ship needed dockyard attention and the crew needed rest.[553]

First Sea Lord Admiral Fraser first raised the possibility of *Sydney* relieving a British carrier in Korea in December 1950. CNS Collins demurred, citing a manpower shortage, but the Admiralty was in a quandary. The RN had no carriers to relieve HMS *Glory* in September 1951, and the First Sea Lord renewed his request in April 1951.[554] After complex manoeuvrings and negotiations, the Australian Cabinet agreed to the Admiralty proposal for *Sydney's* deployment on 11 May 1951.

At that time, *Sydney* had just returned from the United Kingdom, where she had taken delivery of three new squadrons of aircraft to augment the air group already in Australia. She was not worked up, nor fully complemented for war service. While the former requirement could be met using training resources available, the latter caused considerable problems to the RAN. *Sydney's* war complement amounted to 13 per cent of the RAN's strength: her normal complement, with air group embarked, was around 1350, but her Korean War complement totalled 1427 men. With a nominal 50 per cent shore-sea billet ratio, she thus consumed one-quarter of the seagoing force. Many billets in the carrier were to do with the operations and maintenance of aircraft: general service officers or sailors from the fleet could not fill them.[555] However, since the RAN was determined to honour its commitment and demonstrate its professionalism, the necessary efforts were made, and *Sydney* sailed for Japan on 31 August 1951. Embarked were 36 aircraft consisting of Sea Fury fighter-bombers and Firefly ASW aircraft.

In Korea, *Sydney* was assigned generally to the west coast, but spent the majority of her first operational cycle off the east coast involved in attacks on Kojo. On the west coast *Sydney* participated in Operation STRANGLE, the attempt to curtail Communist activities by destroying their lines of supply and communications and their coastal defences, and to defend UN-held islands against a Communist junk assault. Again sent to the east coast, she participated in the bombardment of Hungnam before returning

to the west coast, where she supported UN garrisons on the coastal islands against Communist attack and provided ASW protection for convoys between Japan and Korea. Then, from December 1951–January 1952, she again launched airstrikes in support of the west coast island garrisons, and her final patrol was also off the west coast on interdiction missions.

Given that *Sydney*'s missions were several, examination of the quality and quantity of intelligence provided to the command team and the pilots must be related to those missions separately. However, some observations on the general level of intelligence awareness are possible. It is clear that *Sydney*'s commanding officer, Captain Harries, RAN, placed great emphasis on his ship and her aircrew being properly briefed. Even before the ship sailed for Korea, he had detached several of his key officers to Japan to learn from the experience of their predecessors. Their fields of intelligence inquiry were not limited to operational matters: the topography, environment, quality of enemy opposition and the availability of intelligence to support operations by *Sydney*'s aircraft were all investigated.[556] Key personnel in this organisation were the two carrier-borne ground liaison officers – army officers responsible for planning the ship's strikes on shore targets and briefing the aircrew on their targets, defences and escape and evasion routes.[557] On the return of the carrier's sorties, these officers would debrief the aircrew and compile the post-mission reports, which were forwarded to shore. Between patrols, ships' officers would set up targetting conferences with FO2ICFES staff in Sasebo to discuss priorities and missions for the carrier air group.



The aircraft carrier HMAS *Sydney* (III)

Sea furies on the flight deck of HMAS *Sydney*

Weapon-effectiveness planning also drew on intelligence to determine the appropriate loads for each mission. It was found that rockets were the best weapon for Sea Furies while Fireflies usually carried bombs – the latter aircraft proved particularly effective at striking bridges.[558] All pilots quickly learned respect for the effectiveness of Communist AA fire, which discouraged low-level reconnaissance and encouraged a single pass over targets: nine of *Sydney*'s aircraft were shot down and 99 hits were registered on recovered aircraft . In addition to AA fire the excellent camouflage capabilities demonstrated by the Communists made finding targets difficult until aircrew learned to see through the disguises covering the targets.[559]

At the tactical level, S*ydney* had to maintain a combat air patrol against the possibility of attack by Communist aircraft, something that never eventuated on either coast.[560] *Sydney* also had to provide aircraft to support an ASW screen to guard against attack by either Chinese or Soviet submarines. Again, throughout the war, and especially in the final 18 months, few underwater detections were identified as possible submarines, and none were confirmed.[561] The diversion of aircraft on these tasks away from their primary roles of interdiction resulted from incomplete UN intelligence on Soviet and Chinese intentions.[562]

Targets for interdiction by *Sydney*'s aircraft were provided either by higher authority (as at Kojo and Hungnam), by guerrillas in the islands campaign or shore parties attached to UN forces, or were spotted by the ship's own reconnaissance.[563] The quality of the information on the location of both friendly and enemy forces varied, creating some ambiguities and the possibility that *Sydney*'s aircraft might attack friendly forces and positions. To guard against this, before sailing for a patrol, general intelligence and target information would be obtained from the Joint Operations Center by courier. A

'bomb line' established by the Center and drawn daily on maps and charts delineated the territory held by the opposing sides. UN forces were permitted to attack any target north of the bomb line.[564] The Center also provided the gridded charts used by the aircraft for reconnaissance, attack and close air support on enemy positions, and originated a daily signal allocating targets to be struck by *Sydney*'s aircraft.[565]

Attacks on troop-carrying junks and enemy troop concentrations on west coast islands or littoral were based on information provided by US-led guerrilla bands, codenamed 'Leopard'.[566] Patrolling warships also called for air support on targets they had identified, and armed reconnaissance flights from *Sydney* initiated their own attacks. It was discovered that Leopard teams could also provide bomb damage assessments, as they started to do during *Sydney*'s fifth patrol. This was very useful intelligence, because it indicated whether *Sydney*'s attacks were effective and what armament was best suited to which targets, and it suggested that the enemy assigned some importance to the positions attacked.[567]

*Sydney*'s aircraft also flew spotting missions for NGS for UN warships. Targets would normally be pre-briefed after consultation with the Joint Operations Center, or would be advised by bombarding ships. This task called for some skill, as NGS was often used against hardened targets such as bunkers, tunnels or gun emplacements that could not be reduced with field artillery. This meant that pilots had to be trained to recognise these features, even when well-camouflaged by the enemy. *Sydney*'s squadrons gained a fine reputation for their spotting. On occasion, misidentification of the firing ship could cause complications, as the corrections signalled for the fall of shot from one ship were clearly not relevant to the fire of another.[568] This was not a problem restricted to RAN aircraft, and the occasional lapses were more than compensated for by the plaudits for the service provided by *Sydney*'s aircrew by such important NGS units as the battleship USS *New Jersey*. After a joint bombardment of Wonsan on 13 November 1951, the British Commander-in-Chief Far East signalled Captain Harries, congratulating him on the ship's performance and included the remark:

> Though it is invidious to particularize, the spotters did a first-class job and the *New Jersey* with the commanding officer of the 7th Fleet embarked said that they were the best she has yet had. [569]

The operational results achieved by the carrier clearly indicate that the intelligence provided to *Sydney*'s command team and pilots from various sources, including their own, was sufficient for them to perform their duties very well. As enemy defences and efficiency improved, some missions became very hazardous, but tactics were found to offset these dangers and get the job done. Given the small losses in aircrew to enemy action, one concludes that, in *Sydney,* operational intelligence was applied intelligently by all concerned. Their intelligence jigsaw, although not complete, provided *Sydney* and her aircrew with a picture sufficiently detailed to produce excellent operational results.

## Outcomes

Korea was the first military test for the UN, one that exposed the inherent uncertainties of using that organisation as a vehicle for enforcing international decisions through complex multilateral operations. At a strategic level, this may have been the spur that drove succeeding Australian governments to redouble their efforts in the field of multilateral treaty-making in the five years after 1950, which resulted in Australia's accession to the Australia–New Zealand–United States (ANZUS) Treaty, South East Asian Treaty Organisation (SEATO), ANZAM, and the establishment of the Far East Strategic Reserve.

Operationally, the war was an excellent example of the successful application of sea power. With the exception of a small number of delays to operations caused by minefields in the first months of the war, the UN naval forces seized and held command of the seas contiguous to the Korean Peninsula throughout the conflict. This was a prerequisite in the US decision to oppose the NKPA invasion; without it such a decision would have been untenable.[570] The Communist forces had no strategy, except for mining and the use of coastal batteries, to challenge this command: it was as if the sea had become 'enemy territory' for them.[571] Using this advantage, the UN naval command was able to deliver or to threaten amphibious assault upon enemy-held territory; to withdraw or resupply UN forces as required; to interdict the enemy's coastal towns, defences and transport infrastructure; and to defend and contest possession of offshore islands.

As a strategic outcome, the RAN's performance in Korea, together with that of the other two Australian Services, assisted in cementing Australia's defence ties with the United States. The Australian Government was able to turn the professionalism of its armed forces to advantage in its dealings with the United States, while also sharing a greater concern for events in East Asia than many other Commonwealth countries.[572] Although this in itself did not diminish the pro-British stance of the Australian prime minister, it did contribute towards the conclusion of the ANZUS Treaty in 1951 and to an Australian recognition that Japan was not the enemy it had to face. ANZUS might well have come into being without Korea, but the war - and Australian's contribution to it - accelerated the process.[573] Australia's active role in the UN agencies charged with overseeing the Korean situation also assisted in raising the value of Australia's participation above the level its relatively minor military contributions might have allowed.[574]

At the operational level, its participation in the Korean War was an early test of the RAN's capability to field and support a force at a considerable distance from home bases, and of its ability to sustain a steady stream of trained crews and battle-ready ships to relieve those already deployed. Both aspects caused ACNB grave difficulties. The nature of the operations undertaken also imposed harsh tests on the RAN's professionalism, all of which were passed with flying colours. In Korea, the RAN fielded the first of its

new technology ships, the Battle class, and exercised its first and only application of live fixed-wing airpower. In general, the results were impressive. However, the war also showed once again the technological disparities between the RAN's equipment and that of the USN.[575]

Korea enabled the RAN to demonstrate the utility of conventional naval forces: the blockade imposed by the UN naval command was almost totally successful in denying the use of the sea to Communist operations. The dull but essential work of maintaining a blockade – getting to know the waters, establishing what is normal and usual, establishing relations with the local population, and conducting a succession of boardings and searches – was an indication of what was to come, and should have been reflected in the RAN's force structure development.[576] The demonstrated effectiveness of mines laid by as unsophisticated an enemy as the NKPA drew the RAN's attention to its deficiencies in combating this weapon. CNS Rear Admiral Collins raised this concern in a letter to First Sea Lord Fraser on 6 October 1950, but it was not until August 1961 that the first new minesweepers were commissioned into the RAN.[577]

The Korean War gave no RAN officer much experience of operational level command, and none in staff duties.[578] There may have been opportunities to attach RAN officers to COMNAVFE staff, just as coalition officers were attached to the Far East Command, but there is no evidence this was considered in RAN circles.[579] Operational commanders once more encountered language problems in their attempts to cooperate with ROK regular and irregular forces. The responsibility for bridging the language gap was left to others, an attitude which was to reappear in succeeding conflicts.

Turning to intelligence, Korea provided little by way of improvement for the RAN. Commanding Officers of HMA Ships were keenly aware of the lack of intelligence they might like to have on their enemy provided through formal UN naval command channels, and they showed some degree of resourcefulness in getting it where they could. However, the war provided little by way of experience for the RAN or the Australian Defence intelligence organisations, neither of which had any responsibilities for supporting the operational forces, and whose officers were not involved in the UN intelligence collection, analysis or dissemination apparatus. As both COMNAVFE and FO2ICFES were initially gravely embarrassed by a shortage of skilled intelligence personnel, an offer by Australia or the RAN of staff to assist in the provision of intelligence support to operational forces could only have been welcomed. For whatever reasons, an offer was not made: an opportunity to cement the operational intelligence relationships and to give Australian personnel experience in the 'combat intelligence' field was thus lost.

Finally, and with a clear acknowledgment that detailed information on the subject is sketchy, Korea taught the Western alliance lessons about the adequacy of its Sigint coverage and cryptanalysis capabilities. As part of its UKUSA obligations, Australia had accepted regional Sigint responsibilities: Korea was not one of these, but southern

China may have been. It is not possible to judge whether it discharged this putative responsibility adequately, but whether Korean War lessons were applied to its Sigint responsibilities in Southeast Asia will become clearer in following chapters.



A Sea Fury during a blizzard in the Korean winter

# 6. Securing Southeast Asia: Malayan Emergency and Indonesian Confrontation

From 1945 to 1966, five military struggles threatened the stability of Australia's region: the Malayan Emergency, the Indonesian civil war against the Dutch and the occupation of West New Guinea during 1962, the civil war in Vietnam, Communist-incited insurgency in Laos, and Indonesia's 'confrontation' with Malaysia from 1963 to 1966. Australian governments and defence planners responded by involving Australia in a number of collective security arrangements. The ANZUS Treaty secured an alliance with the United States, while Australian concern for the defence of Malaya led to the concept of ANZAM with Britain and New Zealand, and then to the British Commonwealth Far East Strategic Reserve (FESR) in 1955. The latter, intended for use against external threats to the Southeast Asian region, became linked to the South East Asian Treaty Organisation (SEATO), which Australia regarded as the main bastion against Communist aggression.

These arrangements brought with them a more significant role in regional intelligence responsibilities, along with increased defence commitments. Australia had achieved its goal of a more prominent role in military councils of regional powers, but had difficulty in meeting the expectations of its allies and partners in defence matters. The RAN found itself with important responsibilities for protecting sea lines of communication between the West and Southeast Asia, which helped shape it into an ASW force centred on aircraft carriers. This expertise was never tested, and proved almost irrelevant when naval resources were deployed in regional conflicts.

As was the case in Korea, for the period of the Malayan Emergency and Indonesia's *Konfrontasi* with the Federation of Malaysia, RAN operations were part of a wider effort by a much larger force, this time the British Far East Fleet. The growing sophistication of Australia's intelligence collection and analysis capabilities enabled it to contribute to the overall intelligence picture upon which strategic decisions were made but, at the operational level, RAN units relied on intelligence support from British agencies. The lessons learned from the two phases of operations in Southeast Asia do not appear to have been reflected in naval planning or in staff development, in operations or the intelligence fields.

If the Korean War has been 'forgotten' then the RAN's role in the Malayan Emergency and in Confrontation is practically invisible. In part, this is because information on Australian naval activities was suppressed at the time in the light of sensitivities about Australia's relationship with Indonesia.[580] Official records of military activities of the day that have been made available for public access focus on land-force involvement almost to the exclusion of any other consideration. Worse, many of the official records

which could have shed more light on the maritime aspects of the conflicts have been destroyed.[581] A glance at the endnotes to this chapter will demonstrate that the overwhelming proportion of the meagre volume of monographs and articles written about this period address ground operations. The Australian official historian of the period did his best to redress the balance, but it seems an unsatisfactory account to anyone who served in the theatre.[582] The contribution of intelligence is hinted at, but never explicitly linked to the type of operations conducted by RAN units. This chapter therefore provides a different account that addresses the 'showing the flag' role played by the RAN during the Malayan Emergency, and explains how it was possible to frustrate and defeat Indonesian incursions into Malaysia across an enormous sea frontier, running in some places within mere kilometres of the potential targets.

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After the Japanese surrender, with the memories of the debacle of 1941–42 still fresh, the defence of Malaya and Singapore seemed to Australian strategists to be key points in this nation's security. Furthermore, the Australian Government was not particularly interested in British efforts to highlight the importance of the Middle East in Commonwealth defence and to attract an Australian commitment of forces to the region. There were differences between the Australian Government and its defence advisers over these regional emphases, and the government directed the Defence Committee that Australia's focus should be in the Pacific.[583] Armed with a Defence *Appreciation of the Strategic Position of Australia, February 1946*, the Prime Minister made the point at the April 1946 Prime Ministers' Conference in London that Australia's major contribution to Commonwealth defence should be in the Pacific, in concert with other regional nations.[584]

This declaration was followed by development of cooperative strategic defence planning from 1947, leading to Australia accepting in 1949 the primary responsibility for strategic planning, with the cooperation of UK and New Zealand teams, in the Zone of Strategic Planning. This became known as the 'ANZAM Area', an acronym created from 'Australia, New Zealand and Malaya', with Britain acting for Malaya and its other colonial possessions in the region.[585] Map 19 depicts the area of major Commonwealth interest.

ANZAM, which embraced the interests of all three major British Commonwealth countries in Southeast Asia and the Pacific, received qualified US endorsement through the negotiation of the Radford-Collins Agreement of March 1951, which delineated a line at which the control of naval operations would pass from US to British authorities and vice versa. Specifically, the agreement assigned to ANZAM the responsibilities for escorting and protecting convoys, and for reconnaissance, search and rescue, and ASW in its region. This led to the establishment of common procedures in the Pacific, the use
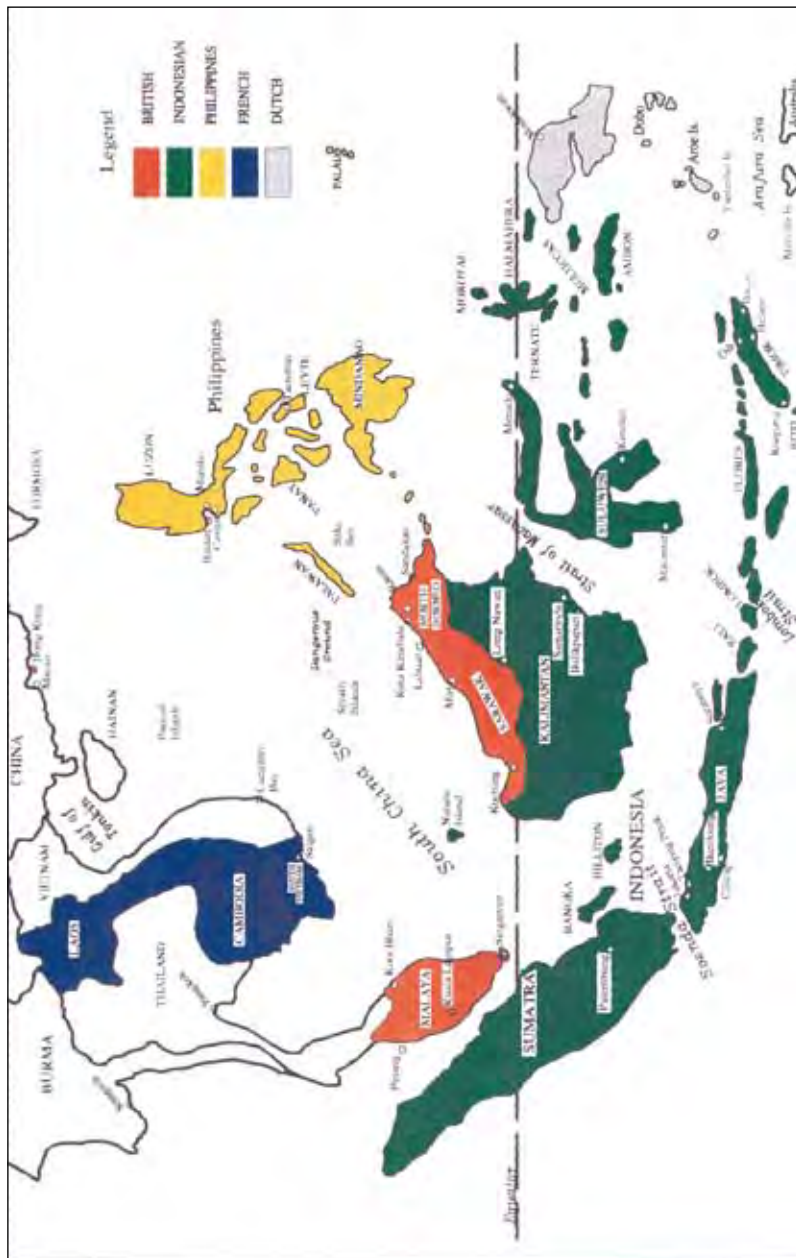
Map 19 - Southeast Asia, 1950

of USN publications as the basic doctrinal and tactical sources, and the improvement of signal communications arrangements between the RAN and USN. It was a major step in cementing relations between the navies and in exposing RAN officers to USN planning and operations.[586]

The responsibility Australia had accepted was not for the defence of Malaya: the British regarded this as a 'home territory'.[587] Rather it was for the overall direction and control of operations in an area that approximated the ANZAM region, but not Malaya itself. Included in this responsibility was defence of the sea lines of communication between the members of the Commonwealth, a factor that influenced the RAN's order of battle for nearly two decades:

> Australia should be responsible for initiating plans for the defence of sea communications, excluding home waters. This planning should be effected by the Australian higher Defence machinery in conjunction with the accredited representatives in Australia of the UK and NZ Chiefs of Staff.[588]

Although not responsible for its defence, the Australian Government and its strategic planners took a close interest in events in the British colony. During its period in office from the end of World War II to December 1949, the Chifley Government had reservations about British actions in Malaya, where a Communist-led insurgency had broken out in 1948. Australian policy makers were inclined to view this as a legitimate indigenous independence movement to remove the British colonial government, rather than an attempt to install a Communist regime in Malaya as part of a worldwide Soviet Union-directed campaign of expansion. In Canberra, the question of the form of Australian assistance to the British authorities in Malaya, if any, became a hot topic. The chiefs of staff had recommended in a 1947 appreciation that Australia should accept responsibility for the Commonwealth scheme of defence based on Singapore, but the government had banned the export of arms, relenting to allow limited small arms exports only in July 1948.

Accordingly, British requests for material and more direct defence assistance from Australia in its struggle against the 'Communist Terrorist' (CT) problem were received cautiously by the government.[589] In an era of decolonisation, Australia had to tread warily so as to avoid being regarded as a supporter of declining colonial regimes or, worse, as a 'neo-colonialist', picking up the spoils in the wake of departing European imperialists.[590] More pragmatically, Australia was unable to respond to British requests because of the dilapidated state of its defence force. However, in 1950 the incoming Menzies Government dispatched a defence team of observers, led by Major General Bridgeford, to Malaya to ascertain why the security situation continued to deteriorate, and what military support Australia might offer. The mission was sent partially because the Australian Government suspected it was not getting the full story from the British, and this suspicion also extended to the question of whether the British were dealing
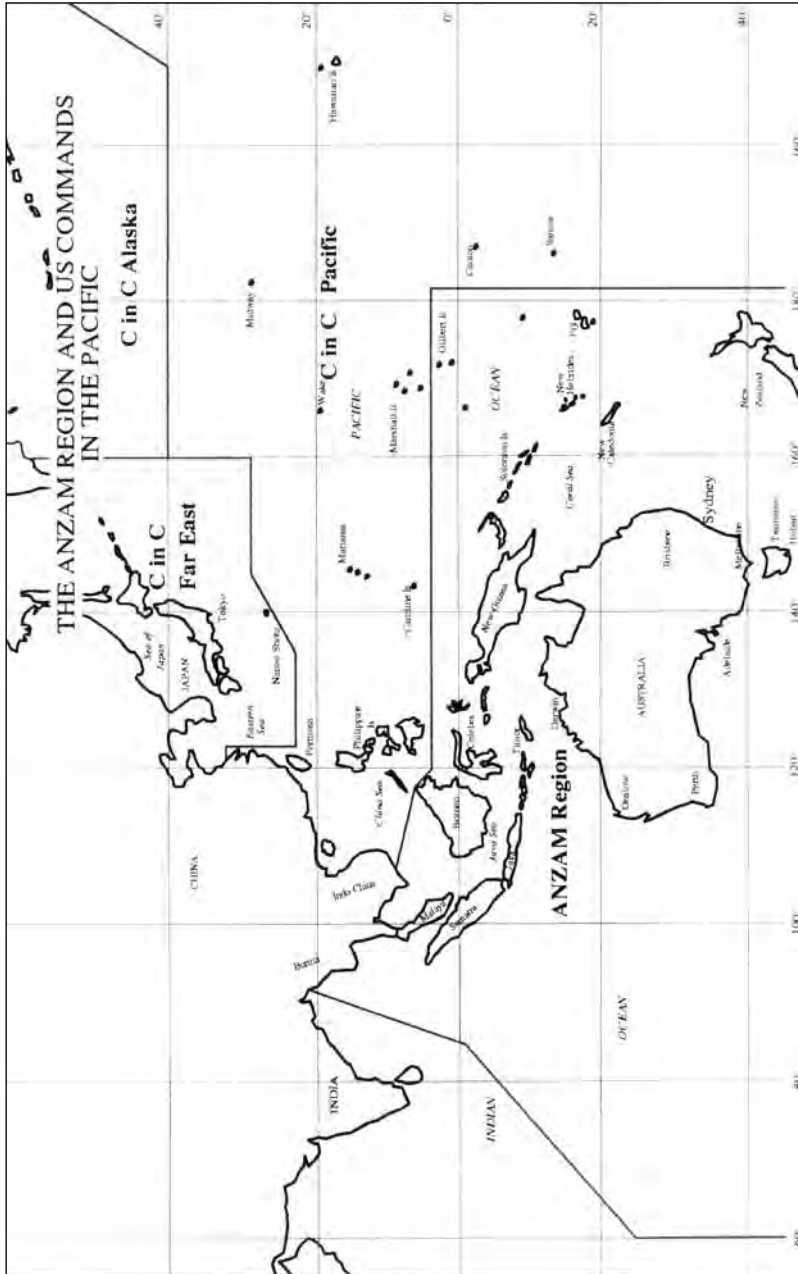
Map 20 - ANZAM Area and US Commands in Pacific

with the CT threat appropriately.[591] Despite the team's report, which recommended a number of military measures Australia could take to help in Malaya, political will for active military support of the British was lacking.[592]

However, in June 1951, when British fortunes were at their nadir and there seemed a real possibility that the insurgency might succeed, the Minister for Defence advised a meeting of Commonwealth defence ministers that 'Australia cannot disregard the effect of the loss of Malaya on our future security'. This expression of political direction was reflected in the *Strategic Basis of Australian Defence Policy* paper released by Defence in January 1953, which stated:

> In view of the effects on the defence of Australia of the fall of Malaya, and the influence this would have on Australia's capacity to deploy forces to the Middle East, it is the Australian Government's view that the aim of the Allies should be to ensure the retention of Malaya.[593]

By June 1953, the ANZAM planning machinery had been activated with a specific set of responsibilities in relation to 'defence matters of common concern'.[594] Map 20, taken from Grey, *Up Top*, demonstrates that ANZAM had more than just responsibilities for Malaya and, in fact, presented part of an interlocking series of Allied command responsibilities in the Asia-Pacific region.

The quickening pace of collective Commonwealth defence planning for Southeast Asia emerged from a conference of defence ministers in Melbourne in October 1953, which recommended that a military force should be created by the three countries. This would be ready to respond to calls for military intervention in the region, and to demonstrate on the international and regional scenes that ANZAM was an alliance in more than name only. Informing these developments were intelligence assessments showing a deteriorating security situation in Southeast Asia.[595] A series of meetings and discussions on the proposal followed, and in April 1955 the Australian Government agreed to commit forces to the FESR.

Australia's naval commitment was for two warships (either destroyers or frigates) continuously in the Far East and an annual visit of around two month's duration by an aircraft carrier. The RAN met its commitments immediately, with the assignment of HMA Ships *Anzac* and *Warramunga* on completion of an ANZAM exercise in June 1955. This was possible because of a reduced commitment to the UN Naval Command in Korea from December 1954.The warships spent between six and nine months in the FESR, 11 ships serving in this role between 1955 and 1960.[596] Thus began one of Australia's longest running defence commitments.

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# The Malayan Emergency

The central organisation at the core of the Malayan Emergency, the Communist Party of Malaya, had been formed in 1928 and had attracted mostly ethnic Chinese adherents. Taking its lead from the Soviet Union and drawing its strength from trade union membership, the party soon achieved sufficient political prominence to lead the British to crack down on its organisation in 1931. However, following the German invasion of the Soviet Union in June 1941, the party offered to cooperate with the British authorities. This offer was accepted and, after the Japanese invasion and conquest of Malaya in 1942, the party was instrumental in founding and providing the organisational structure and leadership for the Malayan People's Anti-Japanese Army. Over the subsequent three years, this group carried out desultory attacks on Japanese installations and forces, while in the latter stages receiving training, material and monetary support from the British through the Special Operations Executive's Force 136. At war's end, the party had developed cadres experienced in guerrilla warfare, amassed a war chest and cached a considerable quantity of arms, ammunition and military supplies.[597]

The post-war period saw the continuation of trade union agitation by the party and outbreaks of rioting and industrial sabotage. In May 1948, the British authorities passed legislation cracking down on Communist influence in the trade unions, and in June the party's new leader, Chin Peng, ordered a mobilisation of his guerrilla organisation to fight the government. Broadly, this comprised former anti-Japanese army cadres, with a supporting infrastructure of mainly Chinese civilians, the People's Movement, known by its Chinese title *Min Yuen*. Failing to excite a popular rising by an initial campaign of assassination and murder in the urban centres, Chin withdrew his forces into the jungles, and in 1949 renamed his force the Malayan Races Liberation Army (MRLA) in the hope, largely unfulfilled, of attracting ethnic Malays and Indians into its ranks.[598] The Emergency then settled down to a contest between the government forces and the CTs to attract and retain the loyalty of the mainly Chinese squatter communities, which linked the jungles with the remainder of the colony. [599] A map of Malaya (later West Malaysia) is at Map 21.

The struggle was fought almost entirely on the ground, between small units of government forces and smaller groups of CTs. Extensive aerial bombardment of suspected guerrilla base areas was conducted, but aircraft were most effective in supply and support of ground operations.[600] Naval tasks were the traditional roles of patrol, blockade and NGS. The situation was analogous to Korea, with the northern border of the Malay Peninsula held more or less securely by the anti-Communist Thai Government. The British retained total control of the sea approaches to Malaya and Singapore to prevent the movement of CTs between base areas by sea or resupply from abroad, and to regulate the activities of legitimate users of coastal waters. The weakest link in the defence was the Johore Strait, between ethnic Chinese-dominated Singapore and the three MRLA divisions initially operating in Johore State on the

Map 21 - Peninsular Malaya Area of Operations, 1955–57

Malayan mainland. The Singapore Committee of the party was responsible for this link, and by 1952 a force of 8 Singaporean and 15 Malayan launches patrolled the strait. A Special Branch report of 22 December stated: 'the Party's sea supply route to Johore has been cut for several months'.[601]

Command, control and intelligence conformed to the needs of land warfare. In May 1950 the British appointed a director of operations to command all counter-insurgency activities conducted by military, police and civil authorities. In 1952 the British went further, combining the roles of high commissioner and director of operations as the head of an emergency operations council. The triumvirate arrangement of civil, military and police authority was extended into every state of the federation through state and district war executive committees. From 1952, a separate position of Director of Intelligence was also established to coordinate the collection, analysis, and dissemination of all-source intelligence by and to the security forces. This integration of police and military intelligence was a bold and innovative step, and one initially difficult to implement. But it was spectacularly successful, and it was a lesson not lost on the British, who employed similar arrangements in Borneo during Confrontation.[602]

Intelligence was principally a matter for the Police Special Branch, which steadily extended its authority through the federation. The Malayan Police were regarded as ineffective in dealing with the initial outbreak of terrorism, and Special Branch was separated from the Criminal Investigation Department in a reorganisation in April 1952. Disquiet about the standards of performance of Malay police continued, and Special Branch was initially hampered by the lack of ethnic Chinese members.[603] Its sources of intelligence were informers, defectors (surrendered enemy personnel) and, later, police agents who infiltrated the MRLA cells. Military sources included information collected by army patrols, and aerial reconnaissance but, as the CTs apparently had no radio communications, Sigint was not a factor, although there is room for some doubt on this point.[604] One commentator likened the intelligence problem presented to the security forces by the MRLA in deep jungle as similar to that of a commerce raider in the open ocean. A pattern of operations took a long time to develop, and it was usually constructed from the evidence of survivors of raids. Another similarity was that the CT, like the German commerce raider of WWII, found that his supply line was his weak link. [605]

Once the British command, intelligence and food control systems had been implemented and the squatter communities came under effective government control through the 'New Villages' resettlement program, the MRLA went into decline. Successively from 1953, areas of the peninsula were declared free from CTs, until only two hard-core areas of MRLA resistance remained in 1959. Truce talks between the two sides took place in December 1955 but broke down. The Emergency was officially ended in 1960, with Chin and a small band of stalwarts isolated in the Thai border region.[606] In 1989, most of the MRLA survivors were finally resettled on the Malaysian side of the border.

## Naval Operations during the Malayan Emergency

Naval operations in support of the government during the Malayan Emergency were neither spectacular nor significant in dealing directly with the MRLA. However, they were important in ensuring that the sea was denied to the CTs and their supporters while preserving its use by the British. There was concern at the beginning of the Emergency that the CTs would be reinforced from the north and Indonesia, and that sea denial was necessary to prevent or limit this.[607] The Australian Government's 1950 Bridgeford mission report saw the situation as follows:

> The Navy is primarily concerned with the prevention of gun running and illegal immigration. Checks are also made on fishing licences, identity cards and cargo clearances. There is considerable traffic of small vessels, mostly of the junk type, between SUMATRA and the west coast of MALAYA, and to a lesser extent between SIAM [Thailand] and both east and west coasts. The main route for illegal immigrants from CHINA is direct to the east coast, probably transshipping from the larger junks to the smaller boats at some distance from the coast. The North East Monsoon about March is the most favoured time for this. The Navy does not interfere with vessels outside the three-mile limit unless they have reasonable grounds for suspicion.[608]

Since this information was derived from official briefings it must be accepted as not only a description of the task of the RN in Malaya but also its rationale.

As in Korea, naval operations involved the tedious tasks of blockade, boarding and search, enforcing the government's writ in littoral zones and offering resupply, transport and NGS support to the land forces as required. There appears to be no evidence that any foreign power attempted to resupply the MRLA by sea, but this did not negate the requirement for the blockade. Conversely, if one did attempt to infiltrate men and material, according to Chin it failed: 'We didn't receive any outside aid… not even a bullet'.[609] Chin clearly overlooked the supply route through Singapore in making this statement.

There is considerable disagreement among sources on the question of whether there was any infiltration of support for the MRLA. In 1950, intelligence from Kedah State suggested that military cadres from the People's Republic of China (PRC) had landed at Songkhla, across the border in Thailand, and filtered south. This was dismissed out of hand by the British Embassy in Bangkok, and no evidence was found of PRC personnel fighting with the MRLA. Mackay, another analyst, stated that, 'the Royal Navy became very good at intercepting most of those [arms smugglers] who tried'.[610] He was backed up by another:

> The other reason why so few arms of any significance were brought into the country was due to the constant but unspectacular blockade exerted by the Royal Navy's coastal patrols, backed up by the patrolling of coastal waters by aircraft from the RAF's Far East Flying Boat Wing.[611]

Chin specifically denied there was any assistance, other than moral, from either the Soviet Union or China.[612] However, some arms and ammunition were captured from Kuo Min Tang (KMT) guerrillas whom the CTs displaced in southern Thailand. Finally, the Bridgeford mission reported after its visit to Malaya in 1950 that 'The naval forces appear to be achieving their aim. There is little or no illegal immigration or gun running'. On the basis of these conflicting views, one can conclude that the efforts of the RN and RAF did deter any major infiltration of weapons to the CTs.

However, the Bridgeford mission also noted that the RN had its difficulties: 'The forces employed, however, are barely adequate and could be increased with advantage and it would be essential to achieve an effective blockade in the event of increased Communist activity'.[613] The Admiralty's 'wish list' was for an additional frigate to boost the two assigned to Malayan patrol duties and six harbour defence motor launches. The frigate could, in fact, serve with the British Far East Fleet on other duties, thus releasing one RN unit for duties in Malayan waters. But even this inducement failed to sway the Australian Government. There were no ships to spare, then or later.

As evidence of this, in June 1955 the Director of Plans in Navy Office began circulating a minute which was to elicit from the Naval Staff 'what MDAP [Military Development Assistance Program] aid we should require and bid for' in the event that American intentions to support ANZAM in the defence of Malaya were confirmed. The potential request developed shows how poorly equipped the RAN was even at that stage to undertake meaningful operations in defence of Malaya. In light of subsequent events in Southeast Asia, it is noteworthy that the RAN thought it needed 24 minesweepers and 86 various patrol craft for the task, a total never achieved nor seriously contemplated in its order of battle planning.[614] In the event, the Bridgeford mission was a dead issue: after studying its report the Defence Committee observed that it did not wish to make any recommendation.[615]

However, it was through the medium of the FESR that the Australian Government was finally persuaded to allow the RAN to lend a hand in the struggle against the CTs, despite the Prime Minister's decision on FESR containing the statement: 'I also agree that pending a Government decision on the role of the Australian Forces, the RAN units should not be employed in operations against the Communist terrorists'.[616] The principal role of the Reserve was to provide a force-in-being to respond to external threats in the ANZAM region as 'a deterrent to further Communist aggression in South East Asia'.[617] A secondary role was to 'assist in the maintenance of the security of the Federation of Malaya by participating in operations against the Communist Terrorists'. It was under this secondary role that the British requested naval assistance, although

their requests were apparently infrequent, and the assignment of RAN units to the tasks of short duration.

The directive of 25 April 1956, setting out for the Commander-in-Chief Far East Station the conditions under which RAN ships were allocated for service with the FESR, stated that 'HMA Ships under your operational control may be used, as are ships of the Royal Navy, for anti-terrorist operations in Malayan waters, and to prevent infiltration by sea of Communist agents or armed bands'.[618] Typically, RN ships would carry out patrols in association with motor launches and Sunderland aircraft, one squadron of which had been withdrawn from Korea for this purpose. Other missions included the transportation of security forces for landings in the rear of suspected CT positions and patrol of seaward flanks of anti-CT operations to prevent exfiltration by sea.[619] It is evident that the British were serious about the blockade and patrolling, which suggests that their government regarded it as worthwhile and necessary.[620]

In September 1956, HMAS *Anzac* participated in a seaward defence exercise in the Singapore Strait, with the destroyer directing police and customs launches to interceptions of suspect boats. Interestingly, the exercise revealed deficiencies in radar detections of small craft and complications in plotting caused by the large number of unlit contacts.[621] RAN ships also played a role in the 'hearts and minds' campaign, through visits to Malayan ports, official calls and shows of military prowess for the benefit of the local population.[622] These may appear as quaint relics of a colonial past to some, but their purpose was both immediate and important. The security forces were thinly spread, and it was not difficult for a ruthless CT band to demonstrate who held the whip hand to a local community remote from government bases. The presence of a warship – clearly more powerfully armed than a CT regiment – off the coast or in visits to coastal communities demonstrated that the government not only had right on its side but might as well. The official entertainment which usually accompanied visits, and even short excursions to sea for selected guests to witness warship firepower demonstrations, were effective in stiffening the resolve of community opinion-leaders. The boom of naval guns firing against CT targets reinforced this message.

The most aggressive part played by the RAN in Malaya was in NGS: on five occasions between 1956 and 1957 RAN destroyers or frigates undertook NGS missions in Malaya. While the CTs were operating close to the coast, naval bombardment was an effective and stealthy way of disrupting them. But Short observed that the absence of accurate coordinates for the guns to fire on often made the exercise 'more harassment rather than destruction'. There seems to be no clear account of how many NGS firings took place, but records show that 39 were conducted in 1952 alone.[623]

In September 1956, and in January and August 1957, RAN units bombarded targets identified by British Defence Coordinating Committee in southern and eastern Johore State. The first occasion was in support of a major security force operation to drive to the north the 400-odd CTs known to be in southern Johore.[624] Ships involved were the

destroyers *Anzac* and HMAS *Tobruk*, to whom bombardment maps of the target area were air-dropped, and whose fire was spotted by an aircraft. Thus there were clearly identified targets to be taken under fire. This was not harassment shooting. These might have been detected by police intelligence, or by photo reconnaissance carried out by the RAF 81 Squadron, which not only provided tactical prints of areas of suspected CT activity, but also assisted in accurately mapping the whole country.[625]

The contribution of intelligence to these operations was not great. It may well have indicated that local morale in a specific area could be improved by a ship visit, but it would seem to have been too imprecise for use in anti-infiltration exercises, as evidenced by the advice that 'There is reason to believe that it is the smaller Chinese fishing boat, with a crew of two or three, which indulges in this [arms smuggling from Sumatra] trade'.[626] The command teams of the bombardment ships appreciated that there was neither surface, submarine nor air threat. There were no mines, and the charts they used were correct and up-to-date. The CTs had no weapons to respond with counter-fire on their ships. The maps supplied by British were, presumably, accurate, and the spotter aircraft ensured that the security forces in the vicinity of the target areas were not endangered. The aircraft also provided bombardment damage assessment.

Thus, comparisons of RAN operations in the Malayan Emergency with Korea and with the future Vietnam conflict are not directly comparable: the conditions under which NGS was delivered were totally different. They required less planning, and were more like a gunnery exercise than a wartime operation. The command teams derived little practice in applying intelligence to the operations, and probably as little satisfaction. These intelligence jigsaws were vastly incomplete – perhaps not even the borders were.

Similar observations apply to the RAN's general role in the Emergency. No RAN staff officers were attached to the staff of Flag Officer Malaya to gain experience in the conduct of counter-insurgency operations. In contrast, the Australian Army ensured that its FESR battalions each received experience of anti-CT operations and that its officers were posted to representative positions on both the 28th Commonwealth Brigade staff and in HQ Far East Land Forces. Apart from the development of the 1955 proposed request to the United States for additional naval hardware, it is difficult to identify any Naval Staff action that was rooted in lessons learned from Malaya. For example, despite the demonstrated utility of inshore patrol craft during the Emergency, and the large order of these vessels which was to have been requested of the United States in 1955, the RAN procured none that could be deployed either to Confrontation or to Vietnam when this kind of contribution was called for.[627]

A possible explanation for this apparent apathy lies in the fact that RAN eyes were on the main game – defence of Southeast Asian sea lines of communication – rather than on the naval sideshow that anti-CT operations in Malaya were. Under considerable financial and strategic pressure at home, and seriously challenged to play its desired

role in Allied military planning in the region, the RAN was content for its ships to slip back into the familiar role of operating under British command in Malaya.

An interesting development in intelligence cooperation that did appear during the Emergency, however, was the embarkation of RAN signals intelligence personnel in ships to monitor possible CT radio transmissions. These men had been sent to Singapore for duty ashore as part of Australia's commitments under the UKUSA agreement, but it has always been difficult to ascertain precisely what their role was and the extent of their contribution to Allied intelligence. Confirmation by way of the Mohr Review of Service Entitlements of a seagoing role for them marked the first essay into this area for the RAN since its Radio Operators Special were withdrawn from its cruisers in 1939.

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While the Emergency bubbled away in Malaya, the Australian Government remained conscious of the need to strengthen its collective security arrangements. The success of the Communist Party of China in its civil war with the Nationalists in 1949, and the subsequent intervention in the Korean War by China in 1950, elevated that country's status as a threat to Australian security. It was believed that China had the capacity and intent to intervene elsewhere in the Southeast Asian region in support of local insurgencies. Planning to protect Western interests in the region thus had to proceed on this basis.[628] The eventual outcome of much diplomatic effort was the formation of SEATO, with membership by Australia, Britain, France, New Zealand, Pakistan, The Philippines, Thailand and the United States, with three 'protocol states', Laos, Cambodia and Vietnam.

SEATO membership required RAN resources to be applied not only to contingency planning and the development of operational doctrine at the organisation's headquarters in Bangkok, but that its units also participate in joint exercises to practise and refine the alliance's ability to respond to the anticipated Communist-initiated advance into Southeast Asia. The easiest method of meeting this demand was to direct FESR units to participate in SEATO exercises under the terms of the Reserve's first role.

Meanwhile, and closer to Australia, different strategic problems were looming. The Australian Government had supported the departure of Dutch forces from the Netherlands East Indies and the formation of the Republic of Indonesia in 1949. Australia was much more supportive of decolonisation than either the British or the Dutch, and regarded friendly relations with Indonesia as a diplomatic priority.[629] The new republic had a difficult birth, including war with the Dutch and the suppression of secession movements in several parts of the Archipelago. These were largely overcome by 1959, when the Indonesians began to assert their claim to West New Guinea, which remained a Dutch territory and with which Australia shared a colonial

boundary. Despite strenuous efforts by Australia to forestall the inevitable, the United Nations permitted the territory to pass into Indonesian control in 1962.[630] For the first time since 1914, Australia shared a common border with a state with considerable latent military capabilities in terms of land warfare, and whose intentions were not clearly perceived.

The Australian Government's response was to step up diplomatic efforts to cement cordial relations with Indonesia and to improve Australia's capacity to collect intelligence on Jakarta's political and military intentions. There had been some worrying trends. Having been a recipient of United States aid, Indonesia began to accept aid from the Soviet Union as well in 1956, and there was concern at the growth of indigenous Communist influence over President Sukarno. In the wake of the West New Guinea annexation, in December 1962 an insurrection broke out in the Sultanate of Brunei. While it was quickly suppressed, Indonesian involvement in fomenting and supporting the uprising was clearly evident. In May 1961, when the Prime Minister of Malaya had first publicly voiced the concept of 'Malaysia' – an amalgam of the British North Borneo colonies of Sarawak and Sabah, and the Sultanate of Brunei, with Singapore and Malaya – the Indonesians were not hostile to the proposal. But this attitude began to change, and on 20 January 1963 the Indonesian Foreign Minister announced that his country intended to 'confront' Malaysia.[631]

Anxious to avoid alienating the Indonesian Government by taking too prominent a role in the defence of Malaysia, at the same time the Australian Government was mindful of its responsibilities towards the new state, whose formation it had supported. To further complicate matters, the security situation in South Vietnam appeared to be spiralling out of control, and SEATO obligations, and understandings with the Vietnamese Government, were demanding some kind of military response. Australia's cautious handling of its military reaction to Confrontation attracted criticism from its ANZAM partners. By 1964, while the RAN was intercepting and occasionally fighting Indonesian servicemen in the Singapore Strait, the Australian component of the 28th Commonwealth Brigade in Malaysia was not permitted to be deployed in Borneo on a similar task. This puzzled the Malaysians and frustrated the British.[632] But the intelligence Cabinet was receiving must have given it much food for thought, and encouraged a reluctance to make any hasty decisions. For example, in late 1964 it was being advised that possible developments in Confrontation could include a military escalation by Jakarta; attempts by the Indonesians to provoke a powerful Commonwealth retaliation against them so as to gain non-aligned and Communist bloc support in the UN; and a 'major military move in South East Asia' by the Communist bloc. The latter would be used by Sukarno as an opportunity to invade Malaysia.[633]

Before that, by November 1963, with the costs of Confrontation rising and causing the diversion of British defence and economic resources from higher priority areas, the British were pressing Australia for military assistance in Malaysia. This escalated, with

a direct appeal to the Australian Prime Minister by his British counterpart in December. The request was declined, but in January 1964 the Malaysian Government asked that the Australian battalion of the 28th Commonwealth Brigade be released for anti-CT duties on the border with Thailand to relieve Malay Regiment troops for operations against the Indonesians. This request was approved, and in answer to a further Malaysian request for engineer, maritime and air transport assistance in Borneo, the Cabinet finally agreed to the dispatch of two minesweepers and other direct military assistance in April 1964. The minesweepers, HMA Ships *Hawk* and *Gull*, arrived on station in late May 1964, the first direct Australian naval commitment to Confrontation.[634] In July 1964 the FESR directive was modified to permit the employment of RAN units against Indonesia.

## Intelligence

Between 1946 and 1955 Australia had entered into a number of treaties, pacts and arrangements concerned with bolstering its defences through collective security, but which also had intelligence connotations. By 1955 it was part of the Commonwealth Sigint Organisation, a partner in UKUSA, an ally of the United States through ANZUS, a principal respondent for ANZAM through the Radford–Collins Agreement, and a key member of the ANZAM defence partnership. In addition, it was an observer at the Tripartite Conferences, a participant in the Five Power Staff Conferences, a signatory to the Manila Treaty setting up SEATO, and a contributor to the FESR.[635] These commitments gave naval planners much anguish over force structures, but they had equal impact on Australia's intelligence activities.

In the first instance, Australia's insistence on having a greater say in British Commonwealth defence matters in the Pacific gained it the perhaps unwanted privilege of the responsibility of providing intelligence on a very large slice of Asia – from China through Southeast Asia to Burma. This had an immediate impact on the size and structure of the Joint Intelligence Bureau (JIB) which, by 1951, was grossly understaffed and unable to meet its responsibilities.[636] Defence Signals Branch (DSB) was following a similar path, where extended responsibilities accrued under UKUSA were stretching both the intercept and analysis capabilities of the organisation. By 1951 it was also in difficulties, caused by manpower ceilings and the shortage of trained personnel.[637] Language training was another bottleneck, and strenuous efforts were required to match the output of service linguists to the tasks accepted.[638] However, these issues appear to have been overcome by April 1955, when there were 773 military and civilian personnel working in JIB and DSB, and both agencies were working towards a combined strength of 1106.[639]

Outside the Defence and Service agencies, Australian Secret Intelligence Service (ASIS) was set up, initially within the Department of Defence but operating under the aegis of the Department of Foreign Affairs, and it had also begun to play a role in collecting diplomatic intelligence to support government decision making.[640] ASIS offices were established in diplomatic missions in Asian capitals, where they cooperated with similar agencies from coalition partners, as well as making a national contribution, independent of the views of Australia's major allies. The Australian Government's caution in making military commitments was informed in part by the rather different views its officers were reporting on regional crises and their causes. ASIS also bid for the very constrained pool of experienced intelligence people in Australia.

There were some compensating gains. Under the pressure of perceived Communist designs on Southeast Asia, and heartened by Australia's willingness to play its part in meeting this threat, the American suspicions and reservations of the late 1940s about sharing information with Australia became less evident. For example, on 20 July 1951, the Defence Committee endorsed a Joint Intelligence Committee (JIC) recommendation that each Service should have intelligence representation in Washington. A vastly improved flow of classified information of a strategic nature on developments in Asia began, heavily weighted in Australia's favour, and Australia gained an entrée into intelligence circles previously closed. The British approved direct liaison and visits between JIC (Far East) and JIC (Melbourne) in 1954, and the intelligence relationship between the RAN and CINCPAC became more cordial, with an exchange of staff officers agreed in 1958.[641] JIB's contribution to intelligence understanding about the region might have been under-appreciated in some quarters, but Australian agencies were contributing and strategic decisions were being made on the basis of JIB reports. For example, on 3 March 1961 the JIC (Far East) considered a JIC (Melbourne) Paper (60) 43 Final titled 'The Outlook for Indonesia up to the End of 1965', and was responding to requests from its Australian counterpart in the form of questionnaires on the British colonies in Borneo.[642]

There were shifts over time in the priority assigned to Australia's intelligence targets. In July 1959, China, Indonesia, Papua New Guinea and Malaya-Singapore led the list, displacing the concerns of the 1950s about the wider East Asia sphere.[643] In 1962 the order had changed to China, Indonesia and Southeast Asia, and a reassessment in 1963 confirmed that Australian priorities for intelligence were all in Southeast Asia. JIB, however, was experiencing difficulties in meeting client demands. Regarding Indonesia, the JIC made the following comment in early 1961:

> Holdings are quite inadequate for the compilation of detailed surveys which are essential for the preparation of the logistic targeting and other reports required for military planning generally. Much of what is held is of World War II and earlier vintage…. For the Borneo Territories a substantial quantity of useful intelligence is held on military geography.[644]

DSB was also extending its reach. By the mid-1950s Australian service personnel were being dispatched overseas to assist in the manning of British intercept stations in Hong Kong and Singapore: in fact, the planned overseas strength was 265 service personnel.[645] Australian capacity to cover targets of Sigint interest also expanded, with stations at Darwin and Perth providing better coverage of Indonesian targets. To an extent, the intelligence used by the British Commander in Chief Far East (CinCFE) and his staff to direct the operations during Confrontation was sourced in Australia or produced in stations part-manned by Australians.

There were sources of intelligence on Indonesia other than Sigint. Commodore Alan Robertson, RAN, who was attached to CinCFE staff, recorded that the Australian naval attaché in Jakarta was a ready source of background information, gathered by him and his staff by observation or from conversations with Indonesian naval officers. Commander Bob Nicholls, RAN, a former member of the CinCFE Intelligence Staff, recalled that if an intelligence question exceeded the capability of the staff to respond 'We'd get onto London or some of our friendly agencies'.[646] But, Commonwealth Sigint on the Indonesian military and diplomatic communications was, apparently, excellent:

> I can't remember the specifics, but we used to be briefed on the way the
> local Indonesian commanders would report back to Jakarta that they had
> done this or that or they were planning to do that or the other – Sigint.
> And we would know bloody well that they hadn't done it. So we knew
> there were great rifts between the outlying commands and Jakarta.[647]

The result of this intelligence cooperation was impressive. The high command had an extremely good idea not only of the Indonesian order of battle, but also of its state of preparedness and the difficulties that the Indonesian Army and sister Services were having in operating and maintaining their equipment.[648]

However, within the RAN the limited WWII capacity for supporting maritime operations with intelligence had declined markedly. Neither the Korean War nor the Malayan Emergency called for any intelligence support from Australian naval sources. By 1956, even the weekly, and then monthly, Intelligence Digests had ceased. DNI Australia's sole contribution to ships serving in Confrontation was the issue of a publication giving photographs and characteristics of Indonesian naval vessels. In a service taking delivery of new ships and capabilities in an endless succession from 1955, intelligence as a trade was neglected, and intelligence postings were perceived as not career enhancing. The attitude was that 'if we need intelligence, someone else will provide it'. As events will show, somebody always did, although it was intelligence of sometimes doubtful provenance, and with distinct national biases.

# The Confrontation Battlefield

Although the initial stages of Confrontation took the form of cross-border raids by Indonesian forces into British territories in Borneo (East Malaysia), by the latter half of 1964 the conflict had spread to West Malaysia (Malay Peninsula and Singapore). The military topography of the battlefield shaped both the Indonesian threat and the Commonwealth response. In East Malaysia, the internal transport network was poorly developed, with the sea and major rivers serving as the principal arteries of access, travel and trade. Consequently, the helicopter became the tactical weapon able to be employed with unanswered effect upon the Indonesian border-crossers by the Commonwealth forces. The Borneo-Kalimantan border area is generally thick jungle, containing rugged mountain ranges with few settlements of any size. The coastline is generally flat, with numerous beaches useable for minor amphibious landings. The only inhabited border area accessible by sea was near Tawau, in the extreme east of East Malaysia, where the boundary ran to the coast and divided the island of Sebatik

Opposite Singapore lies the Riau Archipelago, a profusion of islands large and small, and only a few miles to the south and east of the city and the main international shipping channel. With a long history as a base for piracy, this dense complex of islands was ideal for the launching of raids by fast native craft across Singapore Strait into Singapore itself, or neighbouring Johore State in Malaysia. The volume of cross-strait traffic, added to the endless stream of international shipping, the large number of ships in Singapore Roads and the presence of numerous fishing boats and fishing traps, favoured the concealment of raiding vessels.

To some extent, these issues continued north along the long Malacca Strait separating the Malay Peninsula from Indonesian Sumatra. The southern reaches of the strait are complicated by extensive banks and shoals, narrowing the passage for safe navigation, which runs for some distance on the Indonesian side of the maritime boundary line.[649] There were major Indonesian naval and air bases in Sumatra, and smaller Indonesian warships actively patrolled their side of the strait.

Both East and West Malaysian waters were susceptible to mining, and British intelligence reported that the Indonesian Navy had a stock of moored mines kept in Pontianak, on the western edge of Kalimantan, about 320nm from Singapore.[650] Intelligence on the Indonesian armed forces was generally good. The Indonesian Navy and the Indonesian Air Force had been recent recipients of considerable volumes of Soviet ships, aircraft and weaponry, including an 8-inch gun cruiser, and bombers equipped to launch air-to-surface missiles.[651] The state of readiness for operations of these sophisticated weapons systems was thought to be low, but more concern was felt for the light naval forces, which included over 60 patrol boats, a number of which were equipped with 'Styx' surface-to-surface missiles.

At the same time, the operational capability of the Soviet submarines acquired by the Indonesian Navy (and thought by British intelligence to still be Soviet-crewed) was considered inadequate for attacks in the vicinity of Singapore. The ostensible reason was the shallowness of the waters around Singapore and the Borneo coasts. This conclusion apparently ignored the exploits of British and Dutch submarines in the same region during WWII and overlooked the fact that British submarines could apparently conduct successful intelligence collection operations against Indonesian military targets throughout Confrontation without detection. One suspects an element of racial bias in these assessments – a hangover from pre-war Malayan attitudes.

Set against this, the Indonesian armed forces had gained valuable experience in the course of their campaigns against separatist movements and religious extremists in the years since Independence. They had planned an amphibious assault on West New Guinea in January 1962 which, apparently detected by Dutch Sigint, had been comprehensively defeated at sea. This incident prompted one analyst to reason that, although there has been little information released about Commonwealth Sigint during Confrontation, one can extrapolate from what is known of the Dutch efforts against Indonesia, and can credit the Commonwealth with at least equivalent success.[652] In addition, Indonesian Air Force attempts to land paratroopers in West New Guinea in the weeks afterwards were disastrous, with 22 troops killed, 119 captured and nearly 300 missing believed dead.[653]

And to some extent the Indonesians had given the Commonwealth forces a head start by 'telegraphing' their intentions in Borneo by fomenting the Brunei insurrection. Using the lessons of the Emergency, the British had reacted swiftly by establishing a joint headquarters at Labuan and bringing police and military resources into the one command chain in the Borneo colonies. Although the position of Director of Borneo Operations (DOBOPS) was not formally established until 1964, the structure and relationships created in response to Brunei served as the framework for the rapid development and expansion of Commonwealth operational and intelligence capacities to resist Confrontation in Sabah and Sarawak.[654]

The Commonwealth command structure elsewhere was also in place. As Malaysia was now an independent sovereign nation, the key decision-making body in resisting the Indonesians was the National Defence Council in Kuala Lumpur. This worked through a National Operations Committee comprising the British CinCFE, the Malaysian Chief of Armed Forces Staff and the head of the Malaysian Police. The committee delegated conduct of operations to CinCFE, headquartered in Singapore. He headed a joint staff, in the planning wing of which a succession of RAN officers held the position of leaders of Team A. These officers were apparently totally integrated within the British organisation. When asked whether he had encountered any difficulties through restrictions of access to highly classified British information, Commodore Robertson, RAN, replied:

No. In fact, as an Australian I wasn't meant to see UK EYES ONLY information and my colleagues said: 'Well, you can't do your job if you don't have the information', and they gave it to me…. Nothing was held back from me.[655]

Reporting and responsible to the CinC – and by extension to the National Operations Committee – were the individual service commanders and their headquarters. Operationally, by the time the RAN became involved in 1964, forces assigned to Borneo came under the operational control of DOBOPS, specifically through the Naval Component Commander, an RN captain in the joint headquarters in Labuan.[656] In other parts of the command, ships were assigned their duties through the Captain Inshore Flotilla on the staff of the Commander Far East Fleet (COMFEF), in Singapore.

Command intelligence was the responsibility of the JIC (Far East). The JIC chairman also acted as a member of the Combined Intelligence Staff Committee, which exchanged collated intelligence between Malaysian and other Commonwealth agencies. Single service representatives of the joint intelligence staff also held responsibilities to their own service headquarters. The JIC directed the work of the Joint Air Reconnaissance Intelligence Centre (Far East), operated on the committee's behalf by the RAF and staffed by Army and Air Force.[657] The major part of this Centre's work was both photographic interpretation of the Borneo border areas to spot Indonesian units and activities, and the mapping of the areas over which operations had to take place. Intelligence provided to ships of the Far East Fleet, to which the RAN units were attached, was the responsibility of COMFEF. At one stage during Confrontation, the Commonwealth naval forces comprised more than 80 ships of the British, Australian, Malaysian, and New Zealand navies, including three aircraft carriers. The RN 7th Submarine Squadron carried out intelligence collection patrols as well as operational tasks. Figure 7, compiled by the author, sketches the intelligence organisation for the Commonwealth forces.

The Australian Government was kept well informed of the Confrontation situation and command responses to developments, as the Australian Commissioner (from 1965 the High Commissioner) in Singapore attended bi-weekly CinCFE meetings. This continued the tradition that had been established during the Emergency. CinCFE meetings covered a broad range of political and operational topics. For example, the 16th meeting of 1964 on 17 December discussed clearances for the employment of Commonwealth forces, while the 4th of 1965 (9 April) was concerned with anti-infiltration operations around Singapore. Two weeks later, the meeting discussed the possibility of Indonesian amphibious operations against Malaysia. CinCFE meeting minutes were cabled back to Canberra.[658]

While having the military and intelligence upper hand during Confrontation, the Commonwealth forces laboured under an important political constraint. They were rarely permitted to take the initiative and were thus required to wait for and to respond

to Indonesian moves.[659] This uncertainty led to the development of contingency plans, many of them defensive in intent, but others very aggressive, designed to demonstrate to Jakarta the Commonwealth's resolve should there be any military escalation. At the opposite ends of the scale were Plan CANNON, for the defence of West Malaysia against infiltration, and Plan ADDINGTON, which would have seen a major air assault on Indonesian military targets from bases around the archipelago's periphery, including Darwin. Fortunately, this was never required.[660] The exception to the rule was the authorisation of Operation CLARET, permitting British special forces to cross the border into Indonesia to carry out pre-emptive attacks on Indonesian units preparing for intrusions into British territory.

Australia became involved in Confrontation when, on 27 January 1964, the government agreed to a Malaysian request to allow RAN ships 'to help patrol territorial waters off the North Borneo coast or on the high seas'.[661] The maritime operations that ensued are discussed under four headings, because they took place in very different operational settings.
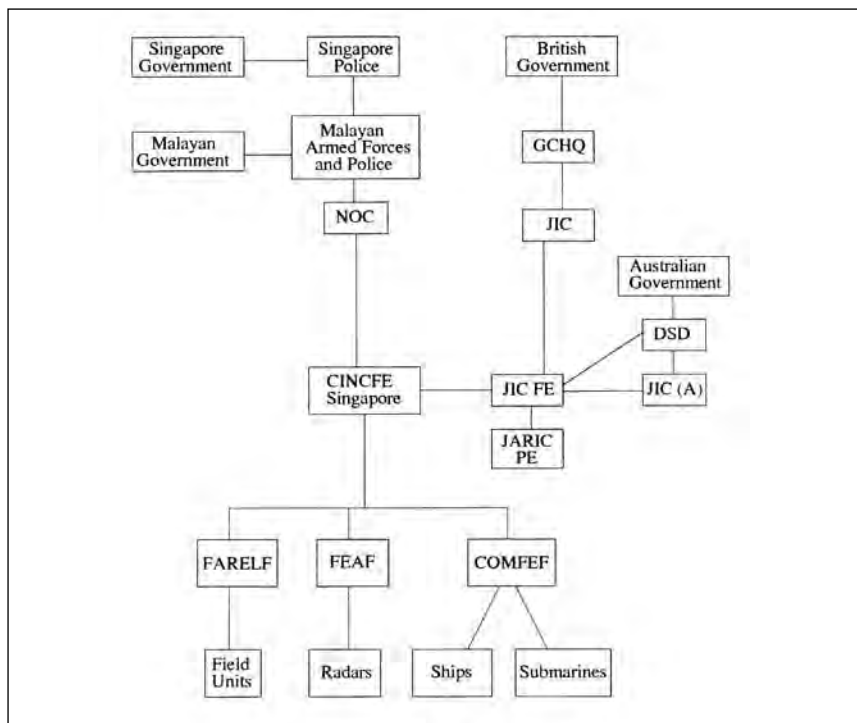


Figure 7 - Far East Intelligence Organisation, 1964

# East Malaysia—East Brigade

Naval patrols in East Malaysia (Borneo) were established as a precaution in early 1963, but the Indonesian Navy posed no challenges until the following year. The maritime areas of East Brigade presented a set of unique patrol challenges to Commonwealth warships. These arose from the topography, from the Philippines' claim to Sabah based on historical precedent and the vigorous activities of the pirates of the Sulu Sea islands.

The principal focus of naval patrols was around Tawau. Here ships were physically confronted with Indonesian Army gun emplacements on Nunukan Island, positioned to contest the use of the waters separating the divided island of Sebatik from the mainland. From early 1964, Indonesian Navy units were frequently seen in the vicinity of Sebatik and Nunukan. The area had been the scene of a successful attack by an Indonesian raiding unit on a battalion of the Malay Regiment in December 1963, 40 miles northwest of Tawau. As well, in contrast to the remainder of East Malaysia, Sabah had an ethnic Indonesian population estimated at 30,000, of whom 20,000 lived in the Tawau area. They had mostly come to Sabah to work in the logging operations and tea and rubber plantations.[662] The region was marshy and mostly covered in primary jungle, and the road system was undeveloped. Both attack and defence would need to be supported by sea.[663] Map 22 is of the border area in the vicinity of Tawau based on AWM78, item 136/3–HMAS *Hawk* Report of Proceedings, April 1966.

The Philippines Government had laid claim to areas of Sabah in the discussions leading up to the formation of Malaysia, and had declined to renounce this claim once the new state was a political reality.[664] While there had been no evident attempts by the Philippines to take advantage of the uncertainties created by Indonesian Confrontation, the possibility of infiltration and agitation had to be considered.[665] Philippines naval forces did conduct patrols in the disputed areas and were, on occasion, detected and intercepted by Commonwealth forces.

Piracy was historically rife in the East Malaysia area. Operating from bases in the Sulu Archipelago, heavily armed bands of Filipino pirates would raid the Sabah coast from Sandakan to Tawau and attack shipping and small craft in the offshore waters. They used small motorised canoes craft equipped with multiple, powerful outboard motors and achieved speeds well in excess of Commonwealth patrol craft. One report gave this at 40 knots, while a pirate boat detected by the frigate HMAS *Yarra* had a crossing speed too fast for the gunnery fire-control system to track, this having been designed to engage ships of up to 50 knots only.[666] Difficult to intercept or take under fire, and dangerous to approach, the pirates could be deterred by the Commonwealth naval effort but were far from eliminated. The traditional methods of supressing piracy by attacking the pirates at their base could not be used during the Confrontation. To complicate the security problem there was traditional peaceful barter trading between the Philippines and Sabah, which continued throughout Confrontation.
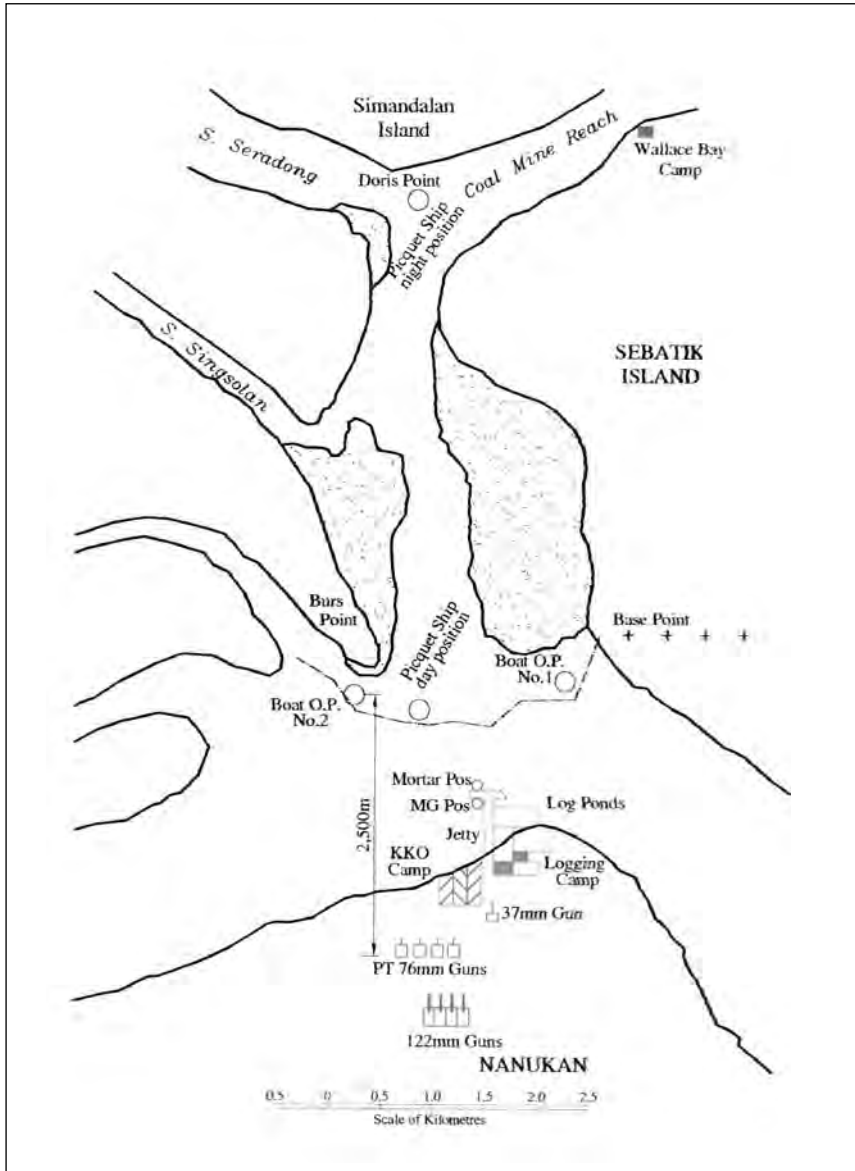
Map 22 - Indonesian-Malaysian Border Tawau

While the regional military command was in Sandakan, the centre for naval activity was Tawau. To contest any Indonesian attempt to interdict the free use of waters on the Malaysian side of the border, and to provide NGS as required by ground forces, the role of Tawau Guardship was created and filled by a destroyer or frigate.[667] This had the necessary firepower and the command, control and communications capabilities to command the Tawau Assault Force, comprising up to a dozen assorted patrol boats and minesweepers, which kept the border and infiltration routes from Indonesia under surveillance.[668]

The Guardship's command team had a number of intelligence sources to enable them to plan and conduct their missions. As Confrontation proceeded, there was a great deal of information on local patterns of water traffic built up and incorporated in handover notes.[669] Intelligence gathered by army posts ashore was reported to and collated by East Brigade Headquarters in Sandakan, and signalled in intelligence and operations summaries as required. Intelligence was also provided by civilians, particularly the staff of the Wallace Bay Timber Company whose resource-holding occupied a major part of the Malaysian half of Sebatik Island. The ships of the Tawau Assault Force also generated and reported information in the course of their patrols.

As in other areas, a major source was police intelligence derived from the interrogation of captured raiders and reports from local people living close to the border. There was apparently no noticeable inclination of the Indonesians living in Tawau to find common cause with their compatriots on the other side of the border. Furthermore, guardships quickly established close links with the ground forces in the border region and were included in their intelligence briefings and signalled situation reports.[670]

Sigint also played a role. Communications associated with Indonesian military movements were often intercepted, and these assisted DOBOPS in ordering ground force retaliation and harassment shoots by the guardship into Sebatik Island to disrupt them. Occasionally, as in the case of *Hawk*'s March 1966 engagements at the border with Indonesian gun positions on Nunukan (to protect British observation posts), the intelligence was immediate and direct. A immediate and direct response was called for under the rules of engagement.[671]

When available, Commonwealth patrol aircraft were able to exchange surface contact information with the Tawau Guardship to widen the area under surveillance. Intelligence on a broader scale was available from daily and weekly reports originated by COMFEF, and from the quarterly Far East Fleet Intelligence Reports, which contained current intelligence, political and economic items. DOBOPS signalled a weekly situation report to all units under his command. The intelligence jigsaw for the Guardship, if not complete in all respects, at least gave her command team the essential details necessary for the conduct of their mission.

The application of intelligence to operations in East Brigade, although it was not always correct, can be judged a success.[672] After the initial raid in December 1963, and the Commonwealth response to it, there were no further seaborne incursions into the Tawau district. Indonesian attempts to apply military pressure to the maritime activities on the Malaysian side of the border were sporadic and effectively dealt with by the Guardship and the Assault Force. The results of the harassment firings by RAN guardships into Sebatik Island are unknown: since the Indonesian forces were unable to deny or to limit Malaysian use of the island, they must be considered successful. But this expenditure of ammunition was questioned by at least one guardship commanding officer, who was told by the British Army that 'The Indonesians are particularly frightened of bombardment in the jungle. Apparently it is an unusually nerve-wracking experience'.[673]

Besides this element of psychological warfare, the strong and continuous naval presence off Tawau also played its part in ensuring the loyalty of the local community, regardless of its ethnic origins. Naval presence was not a principal role of the Guardship nor the Assault Force, but was a collateral benefit from this typical and effective application of maritime power in an insurgency situation.

## East Malaysia—West Brigade

The former British colony of Sarawak, now forming the West Brigade area of operations for the Commonwealth, had two characteristics to challenge the security forces. The first was that within Sarawak dwelt some 24,000 ethnic Chinese, from whom around 2000 members of the Clandestine Communist Organisation (CCO) had been recruited.[674] The CCO was hostile to a unified Malaysia, on both ethnic and ideological grounds. The Chinese of Sarawak, like their ethnic cousins in Singapore, saw the imposition of rule by a Malay majority government in Kuala Lumpur as the end of their hopes for political advancement and a continuation of their inferior status as citizens. The CCO was thus at least sympathetic to the Indonesian cause. Like the CTs during the Malayan Emergency, CCO cadres could move within and expect (or extort) the support of the extensive Chinese community in the state. The second challenge to the security forces was that the border between Kalimantan and East Malaysia ran a scant 50km from the regional capital and largest town, Kuching, and the large Indonesian port of Pontianak was a few hours away by sea from the Commonwealth area of operations.

Two factors favouring the security forces were, first, command of the sea, which allowed military force to be applied quickly from aircraft carriers, commando carriers and smaller warships, right down to the converted stores barges of Naval Force K (Kilo). The latter could penetrate well inland up the large rivers, which are a feature of western Sarawak and were the conduits for transportation and commerce. Second,

despite the concentration of Chinese in the towns, the majority of the inhabitants were Ibans and Dyaks, dwelling in the thickly forested hinterland and along the rivers. They took exception to both Chinese commercial pushiness and intrusions by Indonesia into their traditional lands, and became enthusiastic scouts for the Commonwealth and valuable sources of intelligence.[675]

The international boundary between Indonesian Kalimantan and Malaysian Sarawak reaches the sea at the prominent headland, Tanjong Datu, at the western extremity of the island of Borneo. Infiltration of men and supplies around this border, using military or traditional trading craft, was always a possibility, as was the supply of arms and equipment to the CCO. There was also a faint possibility that the Indonesians could choose to interdict the Commonwealth supply routes from West Malaysia with missile or torpedo boats or submarines, but at the risk of causing a major escalation of hostilities. ALRI could have attempted to mine the river mouths and contiguous waters to hamper Commonwealth operations, and the Indonesians could also have staged raids or minor landings on the beaches east from Tanjong Datu to threaten the flank of the security forces. However, these threats were not regarded as serious, and the mainstays of the patrol force off the Sarawak coast were minesweepers in a general purpose role. Here was the first application of intelligence: CinCFE and COMFEF were sufficiently confident in their knowledge of Indonesian intentions that they found it unnecessary to deploy more capable warships in West Brigade.

Grey described these patrol operations as 'repetitious and uneventful', which they largely were.[676] But they were not unimportant as a naval presence deterred others from providing support or entering the fray. To the numerous fishing boats plying their lawful trade, whose work was disrupted by the peremptory order to stop for searching, they were undoubtedly a profound nuisance. But the searches demonstrated Commonwealth resolve to defeat Indonesian incursions and gun-running in an area where the concept of Malaysia was still very new, and Kuala Lumpur was far away. They also enforced the government policy on registration and licensing of boats as part of the nation-building process. A Chinese Malaysian watching in Kuching as a minesweeper berthed and disembarked a company of Gurkhas can have been in little doubt that adventures involving Indonesian irregulars or CCO cadres would be countered with effective force. Certainly, the word that the coast was effectively patrolled did filter back to Indonesia.[677]

The minesweepers proved themselves by remaining on station in a series of ten day patrols, fuelling and replenishing from a Royal Fleet Auxiliary tanker added to their operational endurance. Lacking suitable small ship's boats, they could be manoeuvred alongside most of the craft stopped for search. One of two 40mm guns was manned for every boarding and armament kept at a high state of readiness. Principal dangers were large semi-submerged logs, which could, and did, damage the hull and propellors of wooden minesweepers, and a surprising number of false targets created by clumps

of vegetation scoured from the banks of rivers and washed to seaward. Each had to be investigated as they showed no lights and did not stop when ordered to.

Initially, there had been some concern about the state of charting in both East Brigade and West Brigade areas. The sea bottom off the Sarawak coast is sandy and gently shoaling – not a problem for the Ton class minesweepers or smaller craft. The rivers were another issue altogether. Carrying heavy loads of silt from the interior, they were prone to the creation of shoals, especially after heavy rains. Navigation of the rivers by Ton class vessels was reasonably safe, and the more serious obstacles, such as rock shelves, were marked. But it was never easy, especially in the lower reaches, where local knowledge, and briefings conducted in Singapore and via handover notes, became as important as printed charts.

Occasionally the patrol routine was interrupted by other tasks. In April 1966 *Hawk* was positioned to blockade the mouths of rivers in the Matong area, northeast of Kuching, in an attempt to intercept survivors of an Indonesian incursion group which had been ambushed and defeated by the border security forces. At regular intervals, the Captain Inshore Flotilla would organise mine countermeasures exercises, so that the ships' primary skills were not lost and would be available if the latent Indonesian Navy mine threat ever eventuated.

The intelligence provided in support of West Brigade maritime patrolling was not extensive. Fishing boats were not restricted to established areas as in Singapore, nor was there any effective track kept of traditional Indonesian water craft. Maritime patrol aircraft occasionally overflew the area, and there was a daily fighter sweep from Singapore. Daily summaries of military activities were compiled from individual unit patrol and incident reports, and a weekly appreciation of the Borneo situation distributed by DOBOPS.[678] There was also a joint intelligence organisation in Kuching, which provided verbal briefs during breaks between patrols. At the operational level, watch was kept on the West Brigade Command Net, which provided a voice-reporting network for units engaged in operations in the vicinity of Kuching. This was a useful channel for instant reporting of incidents or to seek information of the whereabouts of friendly forces. It was the means of avoiding the consequences of misidentification between Commonwealth forces by eliminating the element of surprise in unscheduled encounters.

The intelligence jigsaw used by the Ton class commanding officers was small and simple, and all the pieces were generally in place. Whether the West Brigade coastal patrols deterred any Indonesian attempt at infiltration, or whether any were ever intended, is unlikely to have a definitive answer. But there were neither reported instances of seaborne infiltration into West Brigade of Indonesian forces nor any arms landed to support the CCO, although in 1965 a British minesweeper intercepted a boat from which arms and ammunition intended for the CCO were seized.[679] As with all such maritime patrol tasks the effects were often of a second-order and, hence, harder

to quantify. However, there was a significant corpus of knowledge created within the 16th Minesweeping Squadron on how coastal surveillance patrols should be organised and conducted.

# West Malaysia–Singapore Strait

The Singapore Strait was by far the busiest stretch of water in Malaysia. Singapore itself was (and is) an entrepot port, serving the whole region and, therefore, a major destination and port of departure for local, domestic and international shipping. These maritime routes intersected with one of the crucial sea lanes of the world, carrying cargoes to and from the nations of East Asia from Europe, South Asia and the Middle East. A map of the Singapore–Malacca Straits area, taken from Grey, *Up Top*, is at Map 23. At that time, Singapore had a less developed wharf infrastructure, and in those pre-containerisation days most of the cargoes being handled were breakbulk. Loading and unloading took place at anchor in Singapore Roads, with hundreds of lighters, tugs, bunker lighters and communication boats crisscrossing the busy harbour, and ships and smaller craft constantly leaving and arriving.

Primary responsibility for the harbour's security was assigned to the Singapore Marine Police. This demanding task was eased to some extent by the imposition of controls on the movements of the thousands of fishing boats which also plied these waters. Some permitted night fishing areas were established, with the remainder of the southern coast designated a night curfew zone. Any craft moving in these at night was liable to interception and search.

Understandably, there were a number of successful infiltrations by the Indonesians into Singapore, particularly before these controls had been imposed and the patrol network was sufficiently established from mid-1964.[680] But as forces available to COMFEF built up, a relatively dense network of patrols was established in the Singapore Strait, built largely around minesweepers. Despite their limitations being exploitable by infiltrating craft, this class of ship accounted for 64 per cent of all interceptions, well ahead of any other method.[681] Involved were the Australian 16th, the Malaysian 25th, and the RN 6th and 11th squadrons, the latter manned with some assistance from the Royal New Zealand Navy (RNZN). New Zealand provided the RN with a number of officers to man the ships of this squadron, which had been largely 'mothballed' prior to Confrontation.

As the major RAN contribution to this task was the Ton class minesweeper it is necessary, at this point, to consider the capabilities and weaknesses of this class, matched to the intelligence and operations background in which they were employed. The Ton class was not totally suited to this kind of patrol role due to its low top speed and the vulnerability to small-arms fire of its wooden hull and aluminium superstructure.

Map 23 - West Malaysia Operations Area, 1963–66

The first RAN ships deployed in 1964 had no ballistic protection against small-arms fire, nor was body armour available for exposed members of the crew. By 1966 this had changed, with flak 'blankets' fitted around the bridge area and armour vests issued to bridge personnel and weapons crews.

However, the minesweeper possessed some advantages in this kind of close work.[682] The ship was highly manoeuvrable, had a shallow draught, had long endurance, a rudimentary capability for command and control of cooperating smaller units, good high-definition surface radar, and a height of eye superior to smaller, faster units:

> I used to sit in the charthouse [where the radar display was located] with the cursor up the middle, and watch for anything crossing the cursor. As soon as you found something crossing the cursor you'd go and investigate it.[683]

With its two 40mm Bofors guns and small arms, including .303 Bren guns and 2-inch mortars, the Ton class was more than a match for the small traditional craft favoured by the Indonesians, and these weapons could be fired in the confined waters of the Singapore Strait with less risk of inflicting damage on non-targets or shore installations than the larger guns of bigger warships. The biggest drawback of the class was that its diesel engines were relatively noisy, which could alert infiltrating boats to its presence.

In an interesting example of the application of intelligence to naval operations, the RAN attempted to reduce the difficulties experienced in radar plotting the enormous numbers of surface contacts in the Singapore Strait, and eliminating the innocent from the suspect, by experimenting with a special 'Fanwise' sonar designed to detect the noise of high-speed propellers. The system was developed and deployed in *Hawk* in 1966, but does not seem to have significantly reduced the complexity of the ship's operational problems.[684]

The operating environment was a challenge. As described by the commanding officer of HMAS *Teal*, the Singapore Strait was:

> by far the most interesting and demanding patrol area in Malaysia. The attention required to keep the darkened ship clear of the very heavy mercantile traffic is both challenging and tiring. The area abounds with unlit contacts, most of which are innocent fishermen or floating bamboo stakes (which give a surprisingly solid radar echo). Median line navigation, patrolling Indonesian ships, and infiltrators add to the general requirement of unremitting attention to the job.[685]

*Teal* was the first RAN ship to clash with the enemy during Confrontation operations. On 5 December 1964 she was vectored onto a sampan by Singapore Marine Police, only to discover the vessel was unmanned. The following night she intercepted an unlit

vessel and fired to stop it: an Indonesian officer and two soldiers were captured.[686] On 13 December, *Teal* intercepted two boats off Raffles Light. The boats separated and refused to stop, firing at *Teal* when illuminated. Fire was returned and three Indonesians of a crew of seven were killed. An Indonesian Marine officer was among those arrested, and a quantity of arms and explosives was captured.[687]

Singapore had an array of tempting infiltration and sabotage targets for Indonesia, including airfields and aircraft, radars, the naval dockyard, warships and other military facilities. [688] The attempts detected by *Teal*, among others, caused COMFEF to temporarily reduce the extent of Borneo patrolling in 1965 and boost the number of ships available in the Singapore Strait.[689] Up to 50 vessels could be on patrol in the Singapore and Malacca Straits on a single night. It was not true, as the apocryphal story had it, that one could walk dry-shod from Raffles Light to Malacca Strait on the decks of Commonwealth warships, but the patrol line certainly was tightly packed at the time.



The minesweeper HMAS *Teal*

Commonwealth determination to resist and defeat incursions across the straits was clearly effective, as the number of attempts and interceptions went into a steep decline in the early part of 1965. It was later estimated that the naval forces, together with those of the marine police, were successful in intercepting 80 per cent of the infiltration attempts.[690] Such a high success rate in an environment as challenging as the Singapore Strait points to the influence of superior operational intelligence.[691]

There were three principal sources of this. The first was Sigint. Indonesian tactical and strategic communications were easily intercepted from Commonwealth sites in Singapore and East Malaysia. Indonesian signals security was lax, making the task of Commonwealth cryptanalysts relatively easy. Foreknowledge of Indonesian attacks enabled the Commonwealth high command to assemble and deploy its forces where they would have the highest likelihood of intercepting the raiders.[692]

A second, highly significant source was the Singapore Marine Police. This force dispatched its officers to the Riau Archipelago to collect information on Indonesian forces assembled there and ascertain what actions were being planned. The Riaus remained a centre for smuggling and illegal barter trading with Singapore throughout the conflict, making it easy for the police to get in and out without attracting any special attention. This was clearly a very risky procedure, requiring courage of a very high order from the officers involved.[693] A considerable proportion of the security forces' success can be attributed to this fine contribution by a few highly professional Singaporean personnel.

Third, the Commonwealth forces had the benefit of intelligence derived from the interrogation of captured infiltrators and their supporters in Singapore, and from captured documents. Initially, the infiltrators were mostly disaffected Malay youths; later Indonesians were found among them. In mid-1964 a number of ethnic Chinese were implicated, and evidence of contact with the remnants of the MRLA in the Malaysian–Thai border area was detected. The survivors of an Indonesian airdrop in southern Johore later in 1964 turned out to be both Malaysian Chinese and Indonesian Army regulars. Taken as a whole, the prisoners contributed significant intelligence on the purposes of and plans for Indonesian infiltration, and this was fed back into the arrangements for deploying Commonwealth units.[694]

Finally, to some extent Indonesian operational inexperience – often verging on ineptitude – assisted the maritime patrol force to maintain high levels of security. The courage and determination of those Indonesian personnel who chose to fight when called upon to stop by a Commonwealth warship was unquestioned. But flight would often have been a better option, and a more objective Indonesian analysis of the weaknesses of the patrol force could have led to the development of better tactics for concealment and evasion.

COMFEF ran an efficient patrol operation, backed by good training and intelligence support. Included in the fleet's training repertoire was a captured Indonesian *kumpit* infiltration craft, manned by a determined and experienced crew of 'infiltrators' to train and test the capabilities of the patrol force. Distilled knowledge gained from operations in West Malaysia was contained in two documents. The first was *Orders for Ships Patrolling in Defence of Western Malaysia Seaboard,* known by its short title 'MALPOS'.[695] The second edition of MALPOS, issued in March 1965, was a comprehensive set of instructions on how to prepare for and conduct patrols. Its intelligence annex had information on Indonesian infiltration bases and likely targets, as well as comprehensive details on friendly forces likely to be encountered. Officers of ships sailing on patrol were briefed at the Malaysian Joint Operations Centre before departing, and were also required to submit pro forma debriefs of their operations on return. Access to this accumulated knowledge on the practical problems of maintaining effective patrols, plus the comprehensive intelligence support provided, satisfied the majority of any command team's background intelligence needs.

Supporting MALPOS, but at a higher security classification, and issued only to RN, RAN and RNZN ships, was Far East Fleet Confidential Document 041, *Fleet Operational and Tactical Instructions* (FOTI). In this document, the section titled 'Indonesian Confrontation–action to counter infiltration by sea' gave guidance on the authorised occasions when force could be used, a checklist of actions to be taken on encountering Indonesian forces, and the reporting arrangements.[696] In short, the Singapore Strait intelligence jigsaw was highly detailed and essentially complete.

Commonwealth operations in the Singapore Strait were very successful. The majority of infiltration attempts were intercepted or deterred and the police quickly dealt with the few craft that did get through the security cordon ashore. It was an impressive display of a marriage of accurate intelligence, sufficient appropriate resources and operational competence.

## West Malaysia — Malacca Strait

While the problems confronting the security forces in the Malacca Strait were similar to those in the Singapore Strait regarding transiting vessels and cross-strait traditional traffic, there were some significant differences and additional challenges. The first of these was the rather less concentrated nature of targets for sabotage, making them much more difficult to defend and considerably easier for Indonesian infiltrators to carry out attacks on the infrastructure along the coast. The second was the length of the common sea boundary, which required security forces to be spread more thinly.

The third factor was the rather more aggressive nature of Indonesian naval patrolling, and the array of bases from which raids and infiltrations could be launched into West

Malaysia.[697] There was a minor piracy problem for traditional traders and Malaysian fishing boats in the strait, in which Indonesian Navy and Indonesian Police craft were sometimes suspected of being involved. There were also strong ethnic links between the populace on either side of the southern reaches of the strait: a significant proportion of Malays living in the modern states of Malacca and Johore are ethnic Indonesians and retain family ties across the strait. Accordingly, the Indonesian High Command believed the inhabitants of this part of Malaysia were ready to rise up against their government, once activated by Indonesian military cadres. In fact, these same Malaysians proved their loyalty by quickly turning Indonesian infiltrators over to the security forces rather than welcoming them.[698]

Set against these challenges, the security forces had in place a most efficient police intelligence network, which had been developed during the Emergency. This could, and did, give early indications of Indonesian attempts at infiltration. A second advantage was that the Malacca Strait did allow the employment of Commonwealth maritime patrol aircraft, particularly in the northern reaches, which could be used to surveil traffic and report unusual activity for closer investigation by naval patrols.[699] They were also able to monitor any build-up of Indonesian military strength in ports along the Sumatra coast.[700] Third, while there may have been fewer Commonwealth naval ships to respond to Indonesian aggression, there was a radar-warning net of sorts in Johore.[701] Finally, a rather higher level of attack aircraft resources were available from bases in Singapore and Penang, should this type of response be required to deter or defeat an Indonesian attempt at air or sea insertion. Despite these defences, not all Indonesian attempts at air insertion were detected, let alone intercepted. One hundred infiltrators were parachuted into northern Johore from two Indonesian Airforce C-130 aircraft in August 1964. This gap in radar coverage, dramatically revealed, was temporarily filled by the assignment of a guided-missile destroyer to an anti-aircraft patrol in the Malacca Strait.[702]

Because of the higher level of overt Indonesian presence, the Malacca Strait patrol comprised at least one warship, with cooperation from patrol craft, usually Royal Malaysian Navy and Marine Police. The larger ship had the facilities for constructing and maintaining a plot of shipping in the patrol area, and for commanding and controlling cooperating maritime forces.[703] A Malaysian Police interpreter was embarked for interrogating intercepted vessels, and for manning the regional police radio net.[704] It was anticipated that infiltration attempts would be made by night, so a heightened state of alertness was required during the hours of darkness. This carried some risks for the warships patrolling one of the busiest shipping lanes in the world, while fully darkened.[705] There were three patrol lines established from Singapore to Port Dickson and beyond: the more capable ships patrolled the outer line, followed by inshore and coastal patrol vessels closer in. A Coastwatching network was set up to report any infiltrators successfully breaching these lines.[706] By 1965, intelligence gained from infiltrators and analysis of incidents had enabled COMFEF to devise a mathematical

model to assist in calculating the size of patrol zones to be assigned to particular ship classes in areas of infiltration threat to optimise detection probabilities.[707]

The patrolling warship command team had access to a variety of intelligence to assist it in its task. A good surface picture was obtained using the ship's own radars, and this was plotted in the Operations Room. A watch was kept on the Local Air Command Net to monitor the presence of friendly aircraft or air activity on the Indonesian side of the boundary. The ship's own air-warning radars could contribute information to this net. The frigate or destroyer was in radio communication with cooperating Commonwealth ships in its patrol area, and the activities of Marine Police vessels could also be tracked via the embarked marine policeman. Command teams had the information in MALPOS II and FOTI, as well as the benefit of pre-departure briefings and signalled updates.

While the ship's command team may not have been aware of it, its patrol area had been assigned, based on intelligence derived from Sigint, aerial observation and marine police intelligence sources, which enabled the operations staff in Singapore to station resources where there was most likely to be activity.[708] The same sources provided the warship with an update of known or suspected Indonesian maritime activity. To this, the ship would also contribute as, after a few days on patrol, the identity and operating schedule of the corresponding Indonesian vessels in its area would become known. The ALRI vessels encountered tended to patrol to the edge of claimed territorial waters, making them prime subjects for photographic and electronic intelligence collection by Commonwealth units. If interceptions did take place, intelligence might be gained from the prisoners captured, although these were not always reliable sources.[709]

A warship command team thus worked from an intelligence jigsaw essentially complete, to which they also contributed significantly. The Malacca Strait patrol was remarkably successful in limiting the number of seaborne infiltration attempts the Indonesians were able to lodge. While the percentage intercepted is unlikely ever to be known, the incidence of landings and sabotage was remarkably low, considering the relatively easy target which the southern states of West Malaysia presented to a determined aggressor. Clearly, accurate intelligence thoughtfully applied had much bearing on the result. RAN warships participating gained a great deal of experience in the factors leading to the successful outcome of such a maritime barrier effort.

## Outcomes

The 20-year period after WWII saw a series of important changes affect the RAN. New responsibilities and new alliances brought unfamiliar problems, some of which were handled expeditiously and others, like force structure, were not. It was a period of growth unprecedented in the Service's history, during which the 'navy within a navy'

became able to voice an independent opinion and chart a course separate from that of the RN. The RAN focus of strategic and operational planning became Southeast Asia.

The period also saw major developments in the breadth and depth of coverage, and in the analytical capacity of the Australian intelligence organisations. New or re-established intelligence relationships expanded the pool from which Australia could draw its intelligence, and its growing collection capabilities in a variety of agencies ensured that it had something to offer in return. At the strategic level, government and defence decision-makers had access to good quality intelligence on which to form their judgments. At the operational level, RAN commanders became accustomed to being kept well in the picture from a very good intelligence service, although it was provided by a foreign headquarters.

The Malayan Emergency had few lessons for the RAN, although the need for inshore craft for coastal patrols should have been extracted from the RAN's brief exposure to anti-CT operations. Nevertheless, the British strategy was successful, and the RAN played a small part in that success. That the RAN missed issues arising from that experience can be attributed to its preoccupation with the responsibilities thrust upon it by ANZAM, the FESR and, above all, SEATO. Intelligence made clear the size and nature of the potential threat from China and its surrogates, and this was seen to merit a higher priority in planning, force structure and personnel policy than a mere jungle insurgency.

Confrontation was a more serious issue, but one unfolding in the shadow of the war in Vietnam. Although Confrontation was huge for the British, the Australian Government attempted to limit Australian involvement out of concerns for potential commitments in Vietnam and a disinclination to offend Indonesia. The military contest was clearly a victory for the security forces. In the Borneo jungles, on the busy waterways of Malaysia, and even on land in Western Malaysia, the Indonesian and Indonesian-controlled forces were repulsed, often bloodily, in almost every engagement. At sea, if not deterred, captured or eliminated, Indonesian survivors were quickly rounded up by the security forces waiting for them onshore. Given the dispersed nature of the battlefield, this result would not have been possible without the contribution of superior operational intelligence support.

Confrontation did provide the RAN with new understanding and new skills. The command teams of the 11 ships that served in Malaysian waters accumulated a great deal of knowledge which could have been (but was not) applied in the Vietnam War. It is arguable that the RAN in its most recent campaigns in the Persian Gulf has been using similar skills. Perhaps recognisable only in hindsight, Confrontation was the future shape of operations for the RAN.

Significantly, the RAN did have officers occupying responsible positions in the joint headquarters in Singapore.[710] This welcome departure from previous practice,

unfortunately, did not set a trend for all the RAN's future military engagements. At the shore command level, it learned little about the collection and dissemination of intelligence. Despite the operational experience gained, neither the Malayan Emergency nor Confrontation had a positive impact on the development of intelligence specialist skills by the RAN, except for Sigint personnel.

When Confrontation erupted, the RAN was caught short again with insufficient language-skilled personnel. This impacted directly on the Sigint stations and indirectly on the operational units. As in Korea, what apprehended personnel said during interrogation had to be interpreted for RAN commanders and their staffs by foreigners. With the complex inter-racial mix of some parts of Malaysia, the opportunity for misinterpretation was always present. The Australian Government had declared as early as 1953 that its key strategic area of interest centred on Malaya, but little progress had been made by the Australian Services in acquiring the necessary language skills for its forces to operate there.



The Ton Class minesweeper HMAS Hawk played a central role during Confrontation

# 7. Propping up a Domino: Vietnam, 1967–71

Australian involvement in the Vietnam War was a logical consequence of the country's decisions on collective security arrangements made in the aftermath of WWII.[711] It will be recalled from previous chapters that Australia had first committed itself to an enhanced position in British Commonwealth defence arrangements in the Pacific region. Second, Australia had assigned and deployed forces to the British Commonwealth FESR based in Malaya/Malaysia. Third, it had acceded to the Manila Treaty in 1954, which established the SEATO alliance, dedicated to the defence of coalition interests in Southeast Asia against a perceived expansionist Communist threat from China and its allies. Australia provided staff resources and earmarked forces to be committed to the new alliance based in Bangkok.[712]

For Australian governments, these commitments in pursuit of a policy, later titled 'Forward Defence', created a dilemma. The United States was reluctant to signal any interest in an involvement in ANZAM, while the British Government exercised a studied ambivalence about its willingness to become involved in Southeast Asia outside the area around the Malay Peninsula and North Borneo. Australia had strategic interests in the whole region and strove unsuccessfully to act as a bridge between the positions of the two major powers. The forces committed to the FESR were also seen as being available for SEATO contingencies, and from 1957 onwards Australia appears to have put emphasis on its SEATO obligations.[713] There are two cogent reasons to explain Australia's backing of SEATO. First, Australia remained cautious about the depth and extent of British interest in the Far East, and its ability to play a military role there. Second, SEATO had a wider geographic span than ANZAM, one more representative of Australia's long-term interests in the region.[714] Map 24 depicts the area of SEATO strategic concern.

Throughout the late 1950s and early 1960s, national and coalition intelligence assessments portrayed an increasingly assertive communism, from which the major threat was the People's Liberation Army-Navy (PLA-N) as well as China's growing Air Force.[715] On three occasions (1959, 1962 and 1964), SEATO looked set to intervene militarily in Laos when it seemed the government of that 'protocol state' was about to fall to a Communist-led insurrection. Both Australia and the United States deployed forces for such an intervention, but the crises were resolved by negotiation, in which Britain took a key role.[716] The Australian response to these Laotian crises, and a request for assistance by Thailand in the same period, signalled that Australia clearly saw its way of achieving the Forward Defence it desired as being in partnership with the United States.
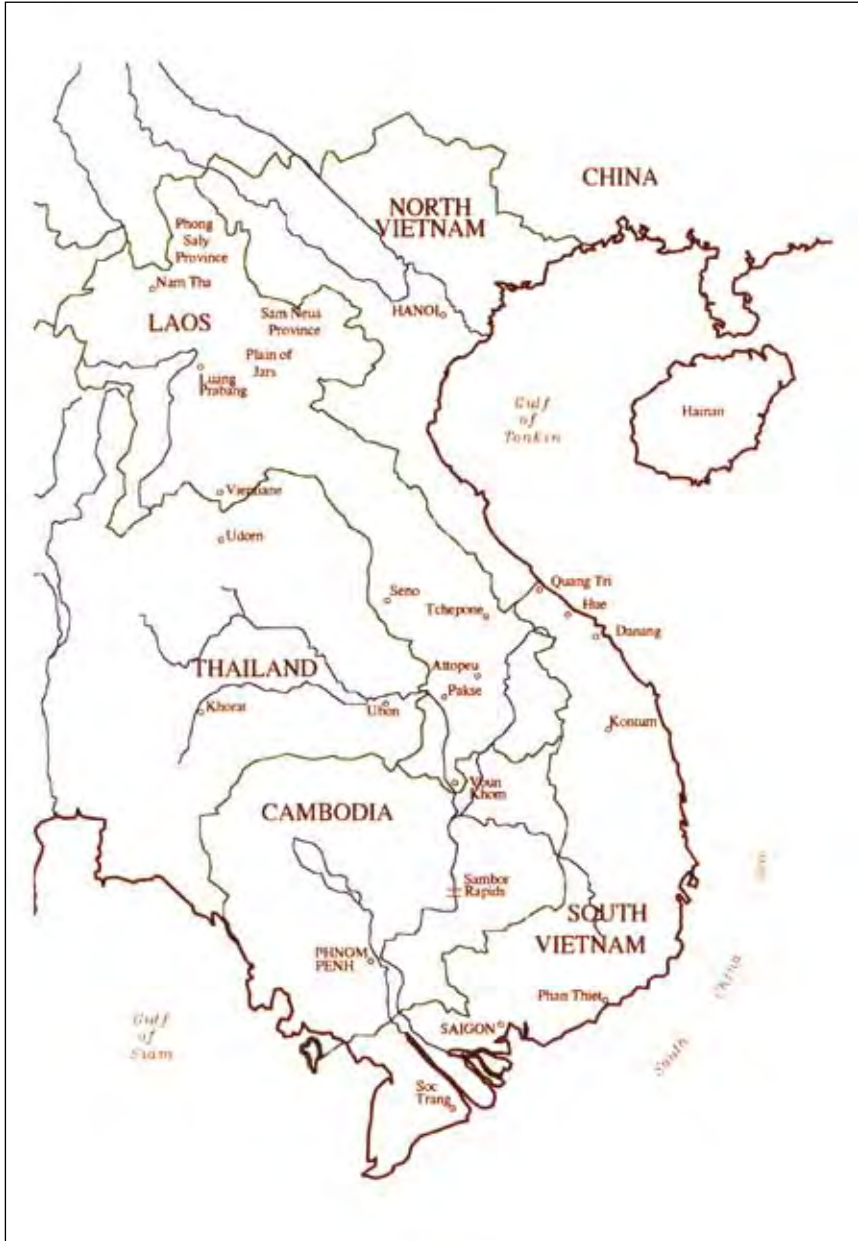
Map 24 - Area of SEATO Strategic Concern

While the political and military situation in Laos, and to a lesser extent in Cambodia, continued to worry governments and military planners in Australia and elsewhere, it seems their greatest concern was for the security and survival of the Republic of Vietnam (RVN) – South Vietnam. It was recognised that the Geneva Accords of 1954, which had resulted in the withdrawal of the French from Indochina and the partition of the country pending a national plebiscite, had only delayed rather than diminished the nationalist aspirations of the Viet Minh and its leader Ho Chi Minh. SEATO countries interpreted the commitment by Ho and his adherents to a Communist ideology to signify that efforts by the Democratic Republic of Vietnam (DRV) – North Vietnam – to unify the country were part of a larger Communist strategy for Southeast Asia. Those SEATO member nations wishing to be involved took steps to strengthen the writ of the RVN Government over its territory and population, and to bolster the country's security forces. The SEATO Council was concerned about the situation in Vietnam, but was unable to agree on an  appropriate response. However, there was contingency planning in SEATO on possible responses to a request for the alliance's assistance should South Vietnam ask for it.[717] Interestingly, their confidence in the RVN Government was such that they also supported its refusal to participate in the promised national plebiscite on the grounds that this would result in a Communist victory.

The security situation continued to deteriorate as North Vietnam infiltrated Communist cadres into the South to support anti-government forces, to recruit adherents (Viet Cong (VC)) and to begin a campaign of terrorism and sabotage against authority figures and government facilities. Politically, the South Vietnamese government of President Diem steadily lost support, resulting in the first of a series of military coups in 1961. From 1962, Australian strategists believed the prognosis for South Vietnam and the remainder of Southeast Asia was poor, and the Australian desire for 'forward defence' was thus in jeopardy unless considerable military intervention took place.[718]

Meanwhile, Australia had provided some assistance to the development of the RVN armed forces' material and professional capabilities. For the RAN, these took the form of naval diplomatic visits by FESR ships to RVN ports, beginning in 1956.[719] Officers were also attached to the RVN Navy for short operational deployments to observe the Vietnamese in action and make recommendations on how the RAN could best assist. Proposals were also drawn up to second RAN technical personnel to assist the RVN Navy with its chronic maintenance and repair problems and to train young RVN Navy officers in Australian naval tactical and specialist schools. However, they were all rejected for various reasons, including the shortage of trained personnel.[720]

When it came to committing naval hardware, the government and the RAN were in a difficult position. This arose, in the words of Millar, from 'Australia's reluctance to actually spend money on defence, its desire to pay the minimum premium on an insurance policy from which much might be expected'.[721] Another reason was that the RAN order of battle of the early 1960s contained few resources to match the

requirements of the USN or the RVN Government. The fleet was composed of British-designed ships, many of them ageing, around the core of an ASW carrier, and there were barely enough destroyers and frigates to meet the FESR commitment.

Powerful modern destroyers were on order from the United States, the Fleet Air Arm was to be re-equipped with USN aircraft, and first-class conventional submarines were on order from the United Kingdom, but all this hardware had yet to be delivered and the crews trained to operational effectiveness. At that stage, the RAN was able to only offer the oiler HMAS *Supply*, six A4 fighter/bomber pilots with 64 maintainers to serve with US Marine Corps squadrons, *Daring* class destroyers and eight additional RAN helicopter pilots for 9 Squadron RAAF.[722]

In the end, Australia committed combat elements to Vietnam to encourage the United States to maintain its forces and influence in the region, while recognising that military experience would stand its forces in good stead in future contingencies. The first commitment was from the Army, but the RAN was also interested in possibilities of becoming involved militarily, although acceptable opportunities were slow to present themselves. It was not until the *Perth* class destroyers entered RAN service in 1965 that an offer acceptable to the USN could be made.

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Western, and especially American, interest in Vietnam was kindled by the difficulties of the French in the early 1950s.[723] Following the French defeat and the division of the country in 1954, the presence of a victorious, overtly Communist 'nationalist' movement in possession of the northern half of the country provoked a high degree of American strategic concern and led to increased demand for intelligence on Vietnam. The experience of unpreparedness for the conflict in Korea had stimulated the development of a better organisation for collecting and assessing intelligence on any area that the United States deemed to be of potential concern. The National Security Agency (NSA) was established in 1954 as the supreme US national authority in Sigint, and the Central Intelligence Agency (CIA) became the controlling authority for coordinating basic intelligence collection.

In relation to Vietnam, the USN had begun developing its basic intelligence understanding of the country in the 1950s. Between 1958 and 1960, an amphibious objective study program was conducted worldwide, in which Vietnam and the Gulf of Siam were included. Data collected covered navigational aids, beach conditions, tides and weather. The east coast of Vietnam was the subject of a second program in October 1961: this time areas in North Vietnam were covered, and the survey extended from the 200-metre line to 100nm inland.[724] A beach survey of selected areas of the South Vietnamese coast was conducted on January 1962. That same year, USN aircraft began

aerial photography of South Vietnam for mapping purposes, and the task was largely completed by February 1963.

Order-of-battle collection on the North Vietnamese Army (NVA) also began in 1962, with surveillance of the North from South Vietnam. In 1964, an active program of overflights of North Vietnam was undertaken from USN carriers operating in the Gulf of Tonkin. The program yielded a great deal of useful intelligence on NVA intentions and capabilities, and confirmed the extensive NVA use of the Ho Chi Minh Trail.[725] Perhaps the most well-known USN collection operations were the DESOTO electronic intelligence patrols off North Vietnam, which began in 1964. One of these patrols sparked the 'Gulf of Tonkin Incident', which brought the USN into active conflict with the NVA. Finally, the USN had begun to amass a valuable store of intelligence on coastal infiltration and the population of the waters off Vietnam through its active support of the development of the RVN Navy's Coastal Force.

Although the size and scope of the US effort dwarfed other collection efforts in Vietnam, Australia did have its own program. The principal source was Sigint, through the Defence Signals Directorate support of the British stations in Hong Kong and the Australian station in Singapore.[726] Given the appreciation that North Vietnam would not move on the South without the tacit and massive support of the People's Republic of China, intelligence on Chinese activities would have been a useful contribution to the Allied pool.[727] This was supplemented by reporting from the embassy in Saigon and from ASIS. Of particular value was the retention of the embassy in Phnom Penh, from which some information on DRV penetration of that country and the concessions being wrung from the Cambodian Government on the movements of NVA men and material could be gained.[728] From 1962, the government also had reporting from the Australian Army Training Team Vietnam, which provided a frontline perspective to compare with US reports.

Unusually, the RAN had its own intelligence-collection program on Vietnam and the RVN Navy, which grew out of the naval diplomatic visits. From 1961 onwards, officers from visiting ships were tasked with intelligence collection on the RVN Navy.[729] This involved attachments to the RVN Navy for operations, including patrols with the Junk Force, the interception of NVA craft, and one riverine operation where the VC ambushed the force.[730] The information gained from these attachments encouraged DNI to request an officer be attached to the embassy in Saigon, shrewdly observing that although 'the Naval Staff in Canberra is apparently little concerned in the details of the progress of the war in South Vietnam …We do however have another responsibility – to the Joint Defence machinery'.[731] His efforts were unsuccessful, although DNI was asked to provide a great deal of detailed intelligence to support the deployment of *Sydney* in 1965. This tiny program of intelligence collection was overshadowed by the US effort, but it was an honest endeavour to provide the RAN with at least an alternative to the information being provided by its large ally.

In all, there was a lot of intelligence on and in Vietnam. The base was sound, but there were questions about the completeness and overall quality of Allied – predominately United States – military intelligence. A diagram of the US military intelligence system in Vietnam, as depicted by the BDM Corporation, is at Figure 8. After the war this corporation, under contract to the US Department of Defense, conducted a thorough examination of the performance of the various intelligence agencies before and during the conflict.[732] Its analysis of intelligence alone ran to 80 pages.

In relation to the intelligence aspects that impinged most heavily on support of maritime operations, BDM concluded that the strategic and political analysis was faulty, leading to sub-optimal decisions by the United States (and presumably Australia) and inappropriate support of the RVN Government. A lack of familiarity with enemy doctrine, strategy and tactics caused the VC infrastructure to be ignored until it had become entrenched. The quality of intelligence personnel and their training was criticised, contributing factors being the extensive use of Reserve intelligence personnel (shades of Korea), and the one-year posting cycle adopted by the US forces.

The USN initially wanted longer tours to preserve the continuity of the work done by advisors, but in 1962 CINCPAC fell in with the general US policy of 12-month tours for unaccompanied personnel.[733] More generally, over-reliance on Sigint rendered US intelligence vulnerable to communications deception, and restrictions on the distribution of Sigint to operational commanders prevented it from being used effectively as tactical intelligence.

On the positive side, the report stated that order-of-battle intelligence was generally accurate, and that the collection effort was successfully conducted. However, the issue of lack of coordination between agencies, and between intelligence and operational commands, was raised once again.[734] Another view is offered by a former naval liaison officer on the staff of the Commander, Australian Forces Vietnam:

> In the US forces, individual units are at the bottom of an enormous chain of professional INT people who, at various levels, have 'authorised contact' with half a hundred kindred bodies in all sorts of outfits (who may or may not find it expedient to reveal all, part, or none of the information available to them).[735]

The study concluded that the Commander US Military Assistance Command Vietnam (COMUSMACV) did not have enough accurate intelligence to serve the command well. The BDM conclusion was based on the support that COMUSMACV was able to provide to the much more numerous Army formations under his command. Two RAN units, Australian Clearance Diving Team 3 (CDT 3) and RAN Helicopter Flight Vietnam (RANHFV), were somewhat affected by this, but the destroyers not at all. The degree to which the harsh judgment of the BDM analysis impacted upon their operations in Vietnam can be judged from later discussion.
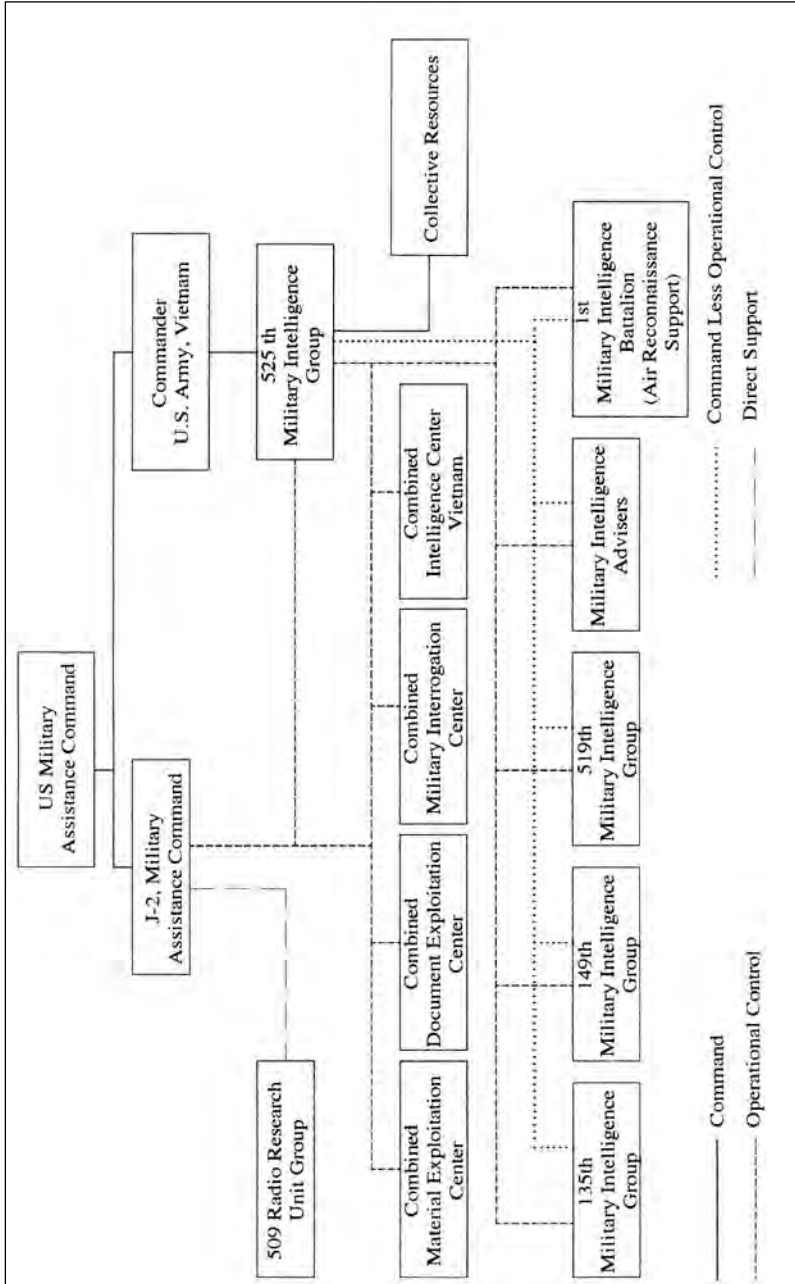
Figure 8 - Intelligence Organisatioin Vietnam, 1967

From the naval viewpoint, however, the intelligence situation in Vietnam was a far cry from that in Korea in 1950. A great deal was known about the enemy and their intentions, charts were largely up to date and beaches had been surveyed. The capabilities of the RVN maritime forces were also well known, and efforts were being made to improve their war-fighting and intelligence-collection capabilities. Naval intelligence operated almost at arms length from the COMUSMACV organisation. Except for riverine and coastal operations, the USN was self-sufficient in collection and analysis resources and capabilities, while the established USN, Pacific Fleet, and 7th Fleet agencies collected and disseminated intelligence along familiar and competent lines of communication.[736] The ease with which RAN destroyers fitted into this system as collectors and consumers of intelligence, and the facility with which they applied intelligence to their operations, will become evident.

## The Maritime War in Vietnam

Broad parallels could be drawn between maritime operations in Vietnam and those of the Korean War and Indonesian Confrontation. Naval forces were required to enforce a blockade of the coastline north and south of a dividing line between the warring states, to deliver strikes by air and gunfire against targets in enemy territory, and to use the same resources to support friendly forces on their seaward flank. An outline of the military regions into which South Vietnam was divided, taken from Fairfax, *Navy in Vietnam*, is at Map 25. Allied maritime forces enjoyed unchallenged command of the sea, while the air threat against ships was negligible.

As in Korea, the United States provided the principal maritime force, but a significant difference is that Vietnam is not a peninsula and maritime forces were unable to effectively interdict the enemy logistics land route south into South Vietnam from the North and Cambodia. As well, the enemy was active within territory controlled by the friendly government the naval forces were supporting. Moreover, for the RAN, this was its first campaign in which it was not part of a British Commonwealth effort. Entirely coincidental, but highly symbolic, the RAN fought this campaign under the new Australian White Ensign, which was hoisted in HMA Ships and establishments in 1967.[737]

Uniquely, the RAN's contributions were to all intents and purposes discrete. The destroyers worked as part of the 7th Fleet, CDT 3 formed part of the inshore and riverine warfare force operating under the command of Commander Naval Forces Vietnam (COMNAVFORV), while RANHFV combined with US Army personnel to form the 135th Assault Helicopter Company (AHC). There were occasional and fortuitous opportunities for these three parts of the Australian contribution to work together, but they were infrequent and unplanned.[738] Overall responsibility for CDT 3 and RANHFV was vested
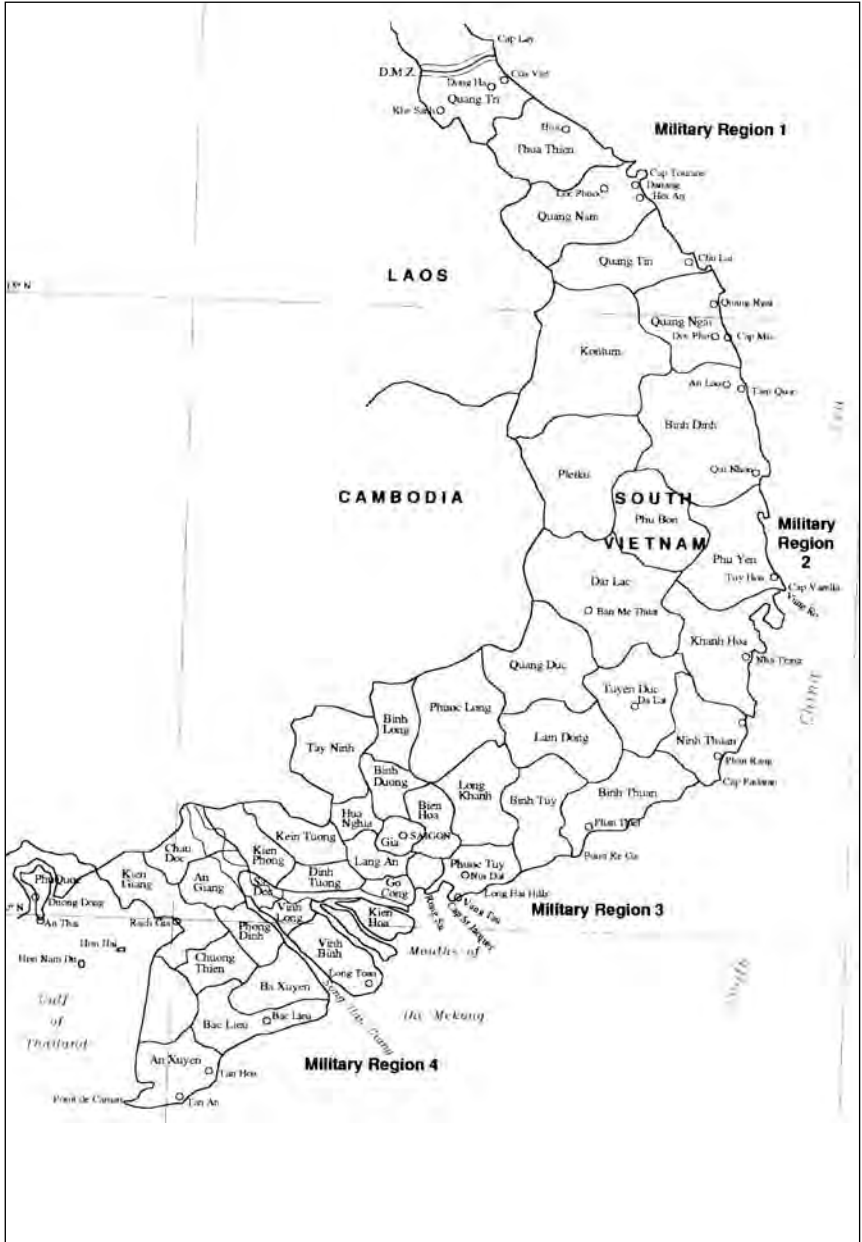
Map 25 - Republic of Vietnam Military Regions

in the Commander Australian Force Vietnam, but that officer had no responsibility for the units serving with the 7th Fleet. [739]

CDT 3 and RANHFV were to have significant experience in working alongside or in support of the RVN naval and military forces, even before the 'Vietnamisation' of the war began in 1969. The destroyers had less contact with the Vietnamese, either at sea or ashore. This factor is important in considering the intelligence upon which each of the three units operated, as will become apparent. Similarly, the destroyers operated in an environment with which they were relatively familiar, and on operations that had been rehearsed in a series of maritime exercises conducted under the auspices of SEATO. In stark contrast, the helicopter crews and explosive ordnance demolition (EOD) teams operated well outside the familiar naval environment, in operations for which their training had not entirely prepared them.

# Clearance Diving Team 3

The first RAN unit to begin operations in Vietnam was CDT 3, with the first of eight rotations arriving in Saigon on February 1967.[740] Its assignment for Vietnam service followed discussions between personnel from CDT 1, which had been deployed for Confrontation service with COMNAVFORV in May 1966, followed by a short attachment to the USN EOD team in Saigon in early June. CDT 3 had been formed and trained specifically for Vietnam operations and underwent an extensive period of training and preparation before its departure for Vietnam. The Australian Army conducted the majority of the non-diving training, using instructors with recent in-country experience.[741] The curriculum included the care and use of small arms, experience of field conditions, handling and demolition of army ordnance, and resistance to interrogation training. The team was briefed on the political and ideological issues of the war, and on Vietnam's history, geography and social conditions. Some colloquial Vietnamese language instruction was also given.

On its arrival, CDT 3 received further technical and intelligence briefings in Saigon, and was sent in two sections for on-the-job training with USN EOD units.[742] Then, on 28 February 1967, it was assigned to Vung Tau as the EOD team attached to Unit 1 of the USN's Inshore Undersea Warfare Group 1 Westpac Detachment, which had been established in November 1966 under the command of Coastal Surveillance Force Vietnam.[743] CDT 3 remained based at Vung Tau until 1970, when it was transferred to Da Nang closer to the Demilitarised Zone (DMZ). Initially CDT3 worked under the terms of a directive issued by the Australian CNS, which specifically forbade its participation in operations involving Cambodia or the USN Special Forces (SEAL).[744]

At Vung Tau, the principal responsibility of Unit 1 (Harbor Defense Vung Tau) was the safety of shipping anchored off the port, either unloading directly to Vung Tau or

awaiting passage up river to Saigon. These operations were codenamed STABLE DOOR. As well, CDT 3 was required to support US and RVN Navy forces engaged in Operation MARKET TIME – the monitoring and control of coastal traffic – and to provide EOD services to military units located in the Vung Tau area, including 1st Australian Task Force (1ATF) headquartered at Nui Dat. Later, the team became involved in riverine warfare operations conducted along the Saigon River, tributary streams and canals, as well as participating in some activities of the USN SEALs.



LSCD P Boettcher preparing to enter the water of Vung Tau Harbour (Phillip Kember)

Before examining the intelligence support provided for these operations in detail, it is necessary to cover briefly the US command arrangements as they affected CDT 3. The steady growth in the demand for naval involvement in inshore and riverine operations prompted a 1967 review of the USN command organisation in the South Vietnam. This culminated in a reorganisation of COMNAVFORV's responsibilities and inshore warfare organisation, TF 115. The officer-in-charge of all the EOD Mobile Units in Vietnam became CTG 115.9, headquartered in Cam Ranh Bay. The officer-in-charge of Unit 1 in Vung Tau became CTU 115.9.1, with operational control of CDT 3.[745] The new operation order for STABLE DOOR, issued on 1 October 1967, described its mission as 'Conduct harbor patrols and surveillance operations as directed in order to protect friendly shipping and military vessels within assigned harbors from attack by enemy sneak craft, swimmers, sabotage and other threats'.[746] In late 1967, CDT 3 became in USN terminology 'EOD Mobile Unit Pacific 25' (EODMUPAC 25).

## Operation STABLE DOOR

When the ships providing the logistic support to Allied forces in Vietnam anchored off Vietnamese ports they became ready targets for the NVA and *VC*.[747] Most were civilian, and the congestion in ports such as Saigon, which often left them anchored awaiting admission into harbour for several days, gave VC swimmer units ample opportunity to select a target and to launch an attack, virtually at will. A study prepared by the US Naval Laboratory Analysis Augmentation Group–Vietnam, and released in January 1970 recorded over 80 successful attacks by the 'swimmer/sapper'. As the Allied defences collectively accounted for only around 20 VC in the whole history of STABLE DOOR, the swimmer/sapper proved a potent and cost-effective weapon for the enemy.[748]

However, as for any weapon system, the study noted that the underwater saboteur had operational limitations. Swimmers, especially when burdened with explosive devices, were limited in both swimming speed and distance before exhaustion set in. This restricted their operational radius from shore, unless they could be delivered into the vicinity of selected target ships by other means, such as fishing junks. The likelihood of attack was thus very dependent upon weather and the tide.[749] The VC also faced difficulties in attaching their explosives to the hull of a target ship. Intelligence showed that while regular limpet mines, usually of Soviet origin, had been encountered in Vietnam, improvised devices were most common. These were attached either to the hull or to hull projections, such as screws and rudders, or trailed under the hull by the tidal stream on lines attached to anchor cables.

Intelligence on these limitations on enemy personnel and material enabled harbour defence units to develop strategies to defeat the swimmer/sapper threat. The first was efficient patrolling of the shoreline in the vicinity of anchorages, sometimes assisted by intelligence contributed by the local RVN authorities and an appreciation of the

most likely spots from which attacks could be mounted. The second strategy was rigorous control and inspection of junks and other local craft transiting anchorages, supplemented by active patrolling by military small craft.[750] Third, ships were encouraged to take some precautions of their own, such as posting sentries to watch for the approach of suspicious craft or debris, or even bubble trails from underwater breathing equipment. Finally, regular and sustained inspection of bottoms by EOD teams could confirm that hulls were clear of mines, and could deter VC swimmers from attempting attacks. CDT 3's major role in STABLE DOOR was to carry out these searches.

The STABLE DOOR Operation of Order gave a detailed listing of the intelligence available to CTU 115.9.1. The unit was 'to maintain close contact with local intelligence agencies. A wealth of information is available from NILOs [Naval Intelligence Liaison Officers], Army Corps, Division and Sector intelligence advisers'. Published intelligence included booklets on VC war materials used in South Vietnam, details of mines and booby traps used by the *VC*, and a guide to selected VC equipment and explosive devices.[751]

The background intelligence supporting these operations was thus quite substantial, but intelligence on CDT 3's enemy was often ephemeral. On the technical side, team members were well-trained and experienced in the task.[752] As well, they had a comprehensive understanding of the types of explosive devices likely to be deployed by the *VC*, both from intelligence publications and their own collection of recovered and defused devices.[753] They appreciated the problems and limitations faced by the swimmer/sapper, and were able to devise tactics to exploit these, such as concentrating their efforts at the time of optimal opportunity for an attack.

They also understood also the mental challenges confronting an attacker. The Australians were credited by the USN with deploying the so-called 'swimmer sweeper' which involved strands of barbed wire or lines with multiple hooks, towed behind a patrol boat. As *Countering the Swimmer/Sapper* observed: 'While the actual probability of interdicting a swimmer in his attempt to penetrate a defence is quite low, knowledge that patrols in the harbour do use such gear should affect a swimmer psychologically'. CDT 3 also briefed other harbour defence units at Vung Tau on how to detect and react to swimmer attack.

On the operational side, while the enemy's capabilities and limitations might have been well understood, the team stood in some danger from friendly forces. In locations other than Vung Tau, EOD swimmers conducting hull searches were fired on and sometimes wounded by ship's sentries. CDT 3 recorded the difficulties in making contact with some ships being searched to alert them to the presence of friendly swimmers. The required watch was not always kept on the harbour common radio net.[754]

Intelligence of a heightened probability of swimmer attacks was rarely borne out by events or the 'statistical' approach to the use of intelligence – most swimmer attacks occur between 0100 and 0400, therefore all ships must be searched during this period. This ran contrary to CDT 3's experience that attacks might well be launched during this timeframe, but only when conditions were favourable to the swimmer/sapper.[755] The unit's orders were that all ships in Vung Tau anchorage – an area of about 12 square miles – be searched daily. However, this instruction was often impossible to carry out, because of a lack of resources, poor weather or equipment deficiencies, and it apparently ignored intelligence that only ships in the inner anchorage had ever been attacked.

Thus, while the application of intelligence against the swimmer/sapper threat in Vung Tau may have been less than perfect, the operational record is a testament to the effectiveness of CTU 115.9.1. During CDT 3's time in Vung Tau, which ended on 14 August 1970, there were just two recorded attacks on shipping in Vung Tau, only one of which caused minor damage. The defence never permitted the VC threat to realise its potential, an achievement for which some credit must be given to the quality of the intelligence support provided, and the defenders' constructive use of it.

## Operation MARKET TIME

MARKET TIME was the name given to the blockade of the Vietnamese coast, designed to prevent the resupply of Communist forces in South Vietnam by sea, and conducted by three separate groups of Allied forces. Maritime patrol aircraft flew a patrol line about 70nm from the coast. Closer inshore were the ships of the 7th Fleet assigned to MARKET TIME duties. In the zone from 10nm to the shore the waters were patrolled by a mixture of USN, US Coastguard and RVN Navy units, including the RVN Navy junk force.[756] Map 26 from Marolda & Fitzgerald, *Vietnam Conflict*, shows the division of the RVN into coastal districts for the purpose of this operation.

On 1 October 1967, CTF 115 issued a revised operation order for MARKET TIME. The Intelligence Annex (Annex G) provided an excellent general summary of the field of battle, including VC methods, suspected infiltration sites and the general pattern of coastal activity in Vietnam. The annex listed the sources of intelligence reporting available to MARKET TIME forces and a number of basic reference books on friendly and enemy forces likely to be encountered. One gets the impression that, if appropriate filtering of intelligence was not employed, frontline units engaged in MARKET TIME were very liable to suffer information overload.[757]

CDT 3's role in this operation was limited to supporting the inshore patrol forces by providing EOD and salvage services. Team members also accompanied some SEAL operations against possible VC infiltration sites. One such operation, on 15–16
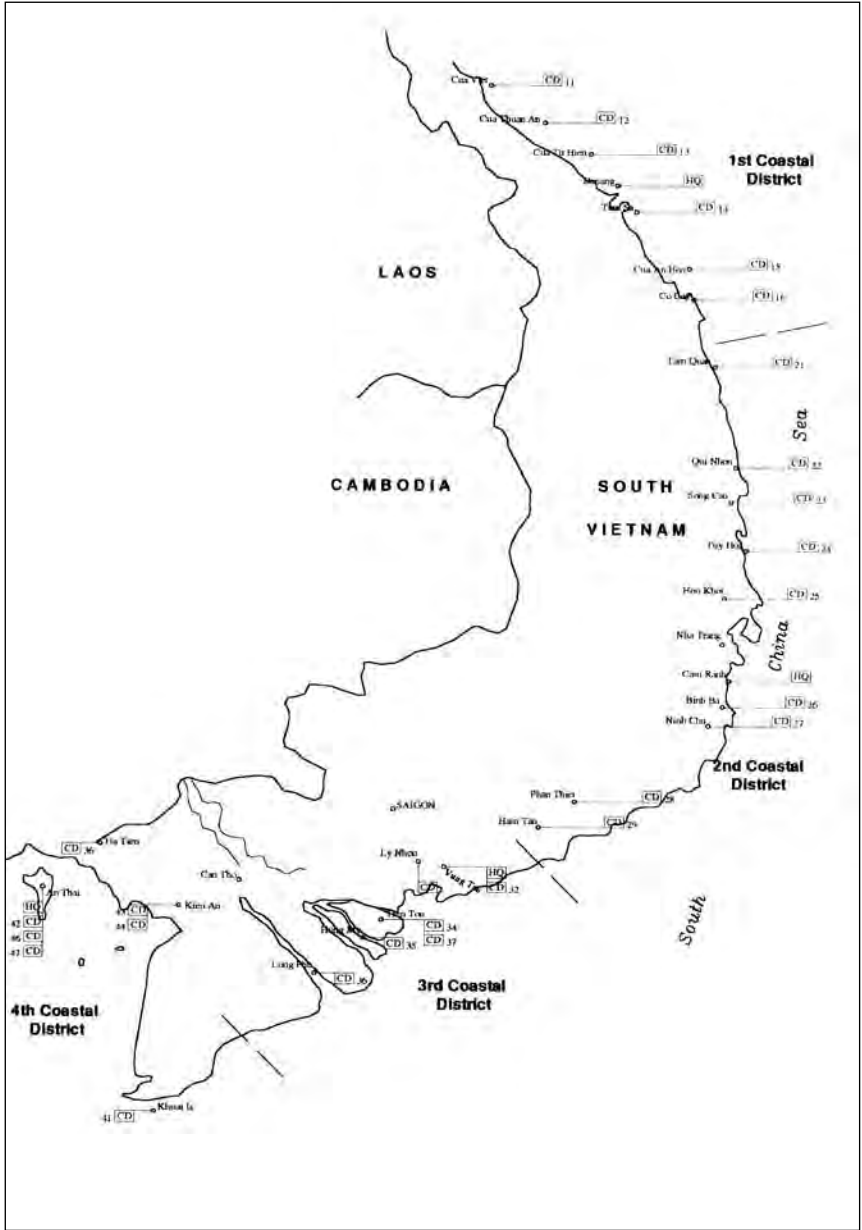
Map 26 - Operation MARKET TIME

March 1967, was a reconnaissance of Long Son Island lying to the west of the Vung Tau peninsula, a site known to be used periodically by the VC to launch artillery and rocket assaults on the port. The CDT 3 member who accompanied the SEALs disarmed a number of VC booby traps.[758] In these cases, the sponsoring unit provided the intelligence supporting the operation. CDT 3's specialist skills were employed in examining and rendering safe any booby traps laid by the *VC*; in examining contraband or suspicious cargoes, and in searching suspect craft for evidence of involvement in swimmer/sapper operations; or in laying and detonating controlled mines in shipping channels.

Many tasks undertaken by CDT 3 as part of MARKET TIME went well, but several incidents suggest that the intelligence on which their host organisations had planned their operations was not always adequate or accurate. This was revealed most dramatically to the second contingent in an incident in August 1967, when four team members participated in an operation to recover two US boats from the VC in a position about 15nm from Vung Tau. The operation faltered under heavier-than-expected fire from the defending *VC*, and the foundering of the command junk in heavy seas. The party was recovered eventually by armoured personnel carriers from 1ATF. An underestimation of enemy forces is understandable, but miscalculation of the effects of the weather at the scene is less easy to forgive. Nevertheless, CDT 3's services were highly regarded, and did attract a letter of commendation from the Commander Southern Surveillance Group.[759]

## Explosive Ordnance Demolition

STABLE DOOR duties permitting, the EOD task was the bread-and-butter work of CDT 3 in Vietnam. Calls for the team's services came from several directions. The greatest volume of work was generated by Allied forces needing to dispose safely of unserviceable or damaged ordnance.[760] A second task was the recovery and disposal of ammunition and weapons lost overboard from shipping, or of ordnance remaining in sunken ships or aircraft in the Vung Tau region. Third was the disposal of enemy ordnance discovered by friendly forces, including the removal of booby traps. Intriguingly, a fourth task was the rendering safe and disposal of ordnance of friendly or enemy origin which had been 'souvenired' by troops departing Vietnam but discarded before their departure. CDT 3 was also required to conduct investigations of suspected improvised explosive devices reported in the vicinity of Vung Tau and, on occasion, the team trained local forces to recognise booby traps and manufacture explosive devices to deal with bunkers and other VC fortifications.[761]

Intelligence support for these tasks was generally strong and reliable. The team's basic training in Australian and selected Allied ordnance undertaken in Australia, and the members' knowledge and skills, were updated and honed by the EOD courses

conducted by COMUSMACV in Saigon.[762] There were comprehensive guides to VC and NVA ordnance and explosive devices available, and Soviet and Chinese ordnance encountered was generally well covered by intelligence.[763] As previously mentioned, the team built up its own knowledge of these items through its work and the construction of its ordnance display.

Puzzlingly, the team encountered a 'no foreign access' (NOFORN) problem for the first time when it came to the rendering safe of certain US ordnance. For reasons not entirely clear but likely to have been a variant of the 'left hand-right hand' syndrome, US authorities had determined that the details of some US fuses and other devices could not be released to the Australians, thus creating a potentially dangerous situation for CDT 3.[764] It was not always feasible to detonate the ordnance in situ, leaving the team member attending the call to decide how the problem could be dealt with while the ordnance was in a live state. Fortunately, the issue was dealt with pragmatically in TF 115 and, as necessary, CDT 3 members were given unauthorised access to the required documentation to give them the skills and techniques for rendering the devices safe.[765]



A CDT 3 member contributing to the massive EOD task
undertaken at Dong Ha ammuniton depot (Adam Blue)

There was also the additional possibility of a team member being confronted with a device with which he was entirely unfamiliar. In those circumstances, he had to fall back on his training and experience. While destruction was frequently an option, the need to gather intelligence on new forms of enemy ordnance and explosives usually dictated that an attempt be made to dismantle it. Through a combination of skill, experience, good intelligence and a modicum of luck, no CDT 3 member was seriously injured in any of the EOD enterprises undertaken in Vietnam. The largest task accomplished was the clean-up of the Dong Ha ammunition depot in Quang Tri Province. The depot had been severely damaged by a VC and NVA attack in June 1968, resulting in huge quantities of damaged ordnance being scattered over a 36ha site. CDT 3 assisted in rendering the site safe between 24 March and 7 May 1970.[766]

## Action in Support of Land Operations

One of COMNAVFORV's responsibilities was to provide naval support to riverine operations. These were undertaken largely by ground forces in the low-lying and marshy lands in the south of the country, generally referred to as the Delta. In the 1967 NAVFORV reorganisation, TF 117 had been established to provide naval support as a riverine assault force, equipped with armoured medium-landing craft, 'Swift' boats, and other craft adapted for riverine warfare. The mangrove swamps provided cover and concealment for VC field units, and the system of canals and rivers forming the inland waterways afforded easy access to supplies of food and ammunition, as well as a means of enforcing Communist control over the Delta population. In short, by 1966 the Delta had become a major centre of VC political and logistics infrastructure, and a strong base for military operations. In mid-1966, COMUSMACV intelligence estimated that there were 82,545 VC in the Delta region, including 19,270 combat troops.

The methods adopted to attack and displace the VC from the Delta make a fascinating study in military improvisation that lies outside the scope of this book. It is sufficient to state that COMNAVFORV used any and all resources at his disposal to assist in the task. As the riverine forces were headquartered at Vung Tau, and as one of their target areas was the swampy region a few miles northwest of the port known as the Rung Sat Special Zone, an obvious resource was CDT 3. EOD team skills could contribute to the operations in three main ways. First, physical and explosive obstacles in the waterways used by the riverine force assault groups could be cleared. Second, VC mines and booby traps set to hinder the assault could be defused and rendered safe and, third, captured enemy ordnance, as well as VC fortifications and other military infrastructure, could be destroyed. The EOD team could also set trip wires for ambush positions set by the riverine force. Additionally, the team was able to conduct salvage of sunken riverine force assets when the necessity arose.[767]

Intelligence in support of these operations was gathered by all means possible, including aerial reconnaissance and intelligence collection teams operating up the waterways. These not only sought out the enemy, but also took note of possible landing zones for assault forces and riverine operating conditions. Rather like the situation on the west coast of Korea in 1950, there were few reliable maps and very little information on the condition and effective navigable depths of the Delta's streams and canals.[768] The reconnaissance teams would also identify VC efforts to block channels or hinder any approach by the Allies by, for example, destroying bridges. A particularly fruitful source of intelligence were captured documents, provided they could be translated quickly enough to be of tactical use before the enemy could redeploy or regroup ahead of the Allied assault.[769]

In these campaigns, as part of Operation GAME WARDEN, CDT 3 operated in direct support of Vietnamese units, including ARVN and paramilitary groups such as the Regional Forces and the Popular Forces. These latter groups were neither well-trained nor highly motivated. The Popular Forces, in particular, was suspected of having VC in its ranks. Coordination was dependent upon the language skills of the US advisers attached to the RVN units, as the Australians were not able to speak enough Vietnamese to converse with them. The pre-deployment colloquial language courses were ineffective for this purpose.

In summary, CDT 3 and the forces it was supporting had the best intelligence available, and this usually proved accurate and adequate. A number of successful engagements yielded few enemy killed or captured, but TF 117 was able to extend control over areas of the Delta that had previously been lost to the *VC*. The EOD teams, including CDT3 members, disarmed booby traps, detonated weapons caches and destroyed numbers of VC fortifications and caves.[770] Not every riverine operation was supported by accurate intelligence: several proved abortive when the expected bunker systems were not uncovered. However, the CDT 3 experience with riverine operations was positive and useful. The team's contribution to the success of TF 117 should not be overstated, but it did demonstrate the successful marriage of Allied skills, experience and intelligence under trying and often dangerous conditions.

## Operations in Military Region 1

By September 1968, VC activity in the Vung Tau region had lessened, and the Officer in Charge CDT 3 arranged for his team members to be detached to work with USN EOD units in the northern part of South Vietnam. These detachments exposed them to a different type and tempo of operations, and they made their acquaintance with the Cua Viet River, which ran along the southern edge of the DMZ. After their relief at Vung Tau by a RVN Navy EOD unit in August 1970, CDT 3 deployed to new headquarters near Da Nang and took up the designator EODMUPAC 35. This was a more active war

zone, with frequent swimmer attacks and a generally higher level of EOD and other calls on the team's services. Only 8km from North Vietnam, the base at the mouth of the river was a target for both NVA artillery and swimmer attack, while the river itself was frequently mined. Night navigation was impossible. In February 1968, USN Task Force Clearwater was established, with the thankless task of keeping the river clear for navigation: many of CDT 3's activities on the Cua Viet were in association with Clearwater. [771] EOD and booby trap removal tasks featured high on the task list and, for the first time, CDT 3 members were working in conjunction with RVN Navy EOD teams, an experience that did not often engender positive feelings.[772]

Intelligence support at Cua Viet in particular appears to have been poor. CDT 3 ensured that any Australian ship visiting the port was thoroughly searched and that Operation AWKWARD routines were enforced, but the USN appeared not to concern itself with such work. Its swimmers were there to react to incidents after the fact. They had much to react to: perimeter security was lax and attacks on shipping by limpet and ground mine were frequent. The VC and NVA had relatively free rein on the north bank of the port from which to launch attacks. In these circumstances there was little need of intelligence to know that all movements up the river and in the vicinity of the port were threatened. It was the very antithesis of how intelligence and operations had been melded at Vung Tau.

While based at Da Nang, CTD 3 continued to undertake the whole range of EOD tasks, including salvage operations. One of the worst tasks of this nature was the salvage of a barge loaded with white phosphorus rounds capsized during a typhoon at Tan Me in November 1970.[773] Support of land operations found four team members in a serious engagement in October 1970, when a surveillance operation near Hoi An conducted by the 1st Jungle Survey Unit came under heavy VC fire while caught in a booby-trapped bunker complex. After an anxious night, the force was extracted safely by helicopter the following day, one team member being awarded the Distinguished Service Medal for bravery under fire. CDT 3 had come a long way from the 1967 injunction, 'Don't get shot at', and the incident demonstrated that the planning of the operation by the team's hosts lacked sound intelligence on the objective chosen, and thus placed the whole party in peril.

On 30 March 1971, the Australian Government announced that CDT 3 was to be withdrawn from Vietnam. The decision had been taken that Australian forces in the country would not be replaced because the reduction of US forces under the terms of the Vietnamisation program meant that the American support infrastructure on which CDT 3 relied would be dismantled. In April 1971, EODMUPAC 35 handed over its Da Nang responsibilities to the US Army and withdrew to Saigon. It was the end of the team's involvement in the war.

CDT 3's Vietnam operations were unique in the history of the branch and the RAN. Team members were aware of this and the need to ensure that their experience became

the basis of future CDT training in the Navy. As noted, inert versions of ordnance encountered were prepared and returned to Australia, and a meticulous log of team activities was compiled for the benefit of future generations of divers.[774] Unfortunately, neither the diving school nor the wider RAN collected and preserved these records, nor debriefed returning team members.[775] As a result, of the few records that remain, most are in the personal possession of team members.

In assessing the intelligence support provided to CDT 3 in Vietnam, there is no doubt that for its assigned tasks the team had the intelligence to do the job, and used it well. Vung Tau anchorage was kept safe from swimmer/sappers, ordnance was recovered and destroyed safely, booby traps were defused, bunkers blown and riverine obstacles removed. The team's intelligence needs were specific and few, and very narrowly focused.[776] If difficulties occurred, it was not CDT 3's intelligence that was faulty, but that of their hosts. The wider war, the larger picture and the intelligence required to support them were not CDT 3's concern. For their operations, the intelligence jigsaw was virtually complete.

## Destroyers with the US 7th Fleet

The question of providing warships to assist the RVN Government was a long standing one. At its meeting of 17 May 1962, the Defence Committee discussed and declined a Saigon government request for the dispatch of two ships.[777] The RAN was again short of destroyers and hard pressed to meet its FESR commitments. As well, there was the important question of how logistic support for British-derived ships and their equipment could be provided in a US-denominated environment.[778] It was not until 1967, when the RAN had taken delivery of two of its new *Perth* class destroyers from the United States, that the Defence Committee considered that the provision of warships to the conflict was feasible. The offer of one destroyer to be attached to the 7th Fleet was made, and accepted, in February 1967. The ships were to be under the operational and administrative control of C7F, but their commanding officers retained the prerogative of declining missions that unduly imperilled their ships or Australia's national interest.[779] This consideration precluded their participation in any Cambodian operations or the Taiwan Patrol maintained by the 7th Fleet. A diagram showing the command and control chain for the destroyers, based on Grey, *Up Top*, is at Figure 9.

The offer of the ships was timely. Roles undertaken by the ships of the 7th Fleet were expanding, with commitments to the aerial bombardment of targets in North Vietnam – Operation ROLLING THUNDER (February 1965), MARKET TIME (May 1965), NGS for Allied forces in South Vietnam (May 1965), engagement of North Vietnamese shore targets between 17°and 20° North (May 1966), and interdiction of waterborne logistics craft (WBLC) in the region between the DMZ and 17° 30' North (October 1966) – the
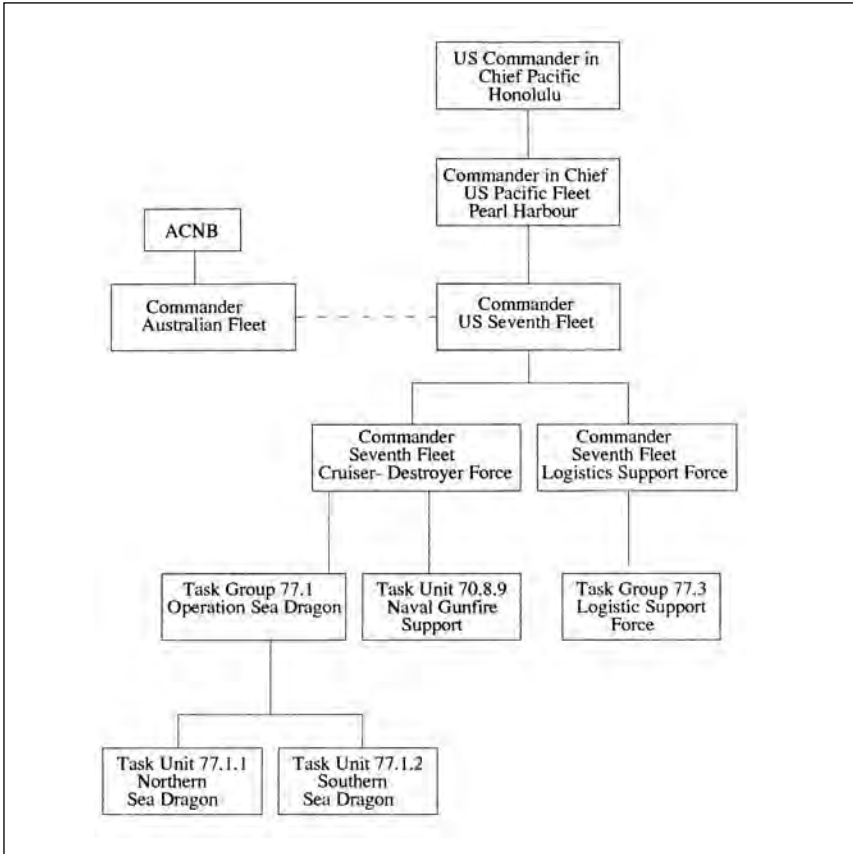
Figure 8 - RAN Destroyers, Operational Control Vietnam

latter as two parts of Operation SEA DRAGON.[780] At that time, the majority of escorts in the 7th Fleet were older ships equipped with less effective and less accurate gunnery systems, radars and EW suites; the better ships, weapons systems and crews of the USN were deployed to face the perceived threat of the Soviet Union, not the NVA. The Australian ships were brand new and almost state-of-the-art. They would need few modifications to fit them for operations with the USN.[781]

The USN clearly welcomed the deployments, but they did raise questions about disclosure of US military information to Australia.[782] In an environment where classified national material was provided under formal arrangements as part of an intelligence exchange program or even in conferences, meetings and exercises, the USN could

control foreign access to sensitive national material with a high degree of confidence. However, in wartime operations, where foreign units were to be interchangeable with USN ships and needed to use the same kinds of information to be effective, segregation of NOFORN information would be difficult to effect with certainty. The USN in general, and the 7th Fleet in particular, had many programs of which the Australians had no 'need to know'. At issue was the protection of this sensitive information.

The matter received high-level USN consideration and, in the end, all the information the RAN ships would need to fulfill their foreseen responsibilities was released.[783] There were also changes necessary to USN communications arrangements, with NOFORN messages needing to be off-line encrypted for transmission on the fleet broadcasts monitored by the Australian ships. RAN commanding officers reported few information release problems, and the USN demonstrated a remarkable degree of trust in the Australians.[784]

On the RAN side, some effort was required to bring the ships deploying to a state of training commensurate with their future tasks. Key areas of concentration in the work-up of the ships were damage control and NGS, which required that RAN procedures be modified to equate with those employed in 7th Fleet.[785] Remarkably, little attention was paid to providing the RAN ships' companies with an understanding of the politico-military background to the war.

It wasn't just fine ships the 7th Fleet gained. The guided missile destroyers were the 'first eleven' of the RAN, and their commanding officers and key members of the ships' companies were specially chosen for these postings. All but one of the Vietnam-era commanding officers made flag rank, and one became CNS. In the 7th Fleet, USN escorts frequently had junior commanders in their first command, which they held for only one year. During this time they had to distinguish themselves – theirs was a 600-plus ship navy, after all. The RAN commanding officers had more respect for the enemy, and a great deal more regard for the relative value of their ships over the transient requirements of a spotter ashore.[786]

## Operation SEA DRAGON – Action North of the DMZ

The United States had considered a blockade of North Vietnam as early as August 1961, but the proposal met opposition from CINCPAC.[787] However, on 15 October 1966 approval was given to conduct attacks on suspected WBLCs north of the DMZ, and destroyers were assigned for this purpose. The northern limit of the SEA DRAGON interdiction zone was advanced to 18° North in November 1966 and to 20° north in February 1967, and then withdrawn to 19° North in April 1968.[788] Map 27, based on Grey, *Up Top*, shows the SEA DRAGON area of operations. Because of the probability of coastal defences returning fire on Allied units, ships assigned would, preferably,

Map 27 - Operation SEA DRAGON Area, 1966-68

be those equipped with modern systems of superior range. The RAN's new guided missile destroyers admirably fitted this description.[789]

After reporting to 7th Fleet, and a period of briefings and training in the Subic Bay area in the Philippines, HMAS *Hobart* was assigned to SEA DRAGON in May 1967. This was to be the first of many occasions on which Australian ships operated off the DRV coast. All RAN units attached to the 7th Fleet, including the *Daring* class destroyer HMAS *Vendetta*, spent time on this station while the operation continued. In the words of Rear Admiral Doyle, RAN, who commanded *Perth* on her first deployment, this was 'part of the second war in Vietnam', where ships operated in hostile territory and were at risk from coastal defence sites and the potential threat of attack by NVA aircraft.[790]

Intelligence support for SEA DRAGON was impressive. To add to the general intelligence picture distributed in the CINCPACFLT intelligence summaries and supporting information from COMUSMACV, specific information was supplied from the results of photo-reconnaissance missions undertaken by 7th Fleet aircraft to identify both potential WBLCs and enemy coastal defence sites. The latter were each assigned an alpha-numeric identity, and information on the number and type of weapons occupying the site was maintained in a 'CD Site Register' (later the 'North Vietnam Naval Gunfire Support List'). This was issued monthly by the Pacific Fleet Intelligence Facility in Hawaii and updated by weekly signal.[791] Reconnaissance missions were flown whenever weather permitted, but USN reports show that poor visibility over the target areas did degrade the accuracy of the NGS list.[792]

The second source on coastal defences was from electronic intelligence detections. Many of the NVA batteries were believed to be radar-directed, and the characteristics of these emitters were recorded and analysed by USN airborne collection assets. The information was passed to ships equipped with EW receivers, which could thus be alerted when a coastal defence site illuminated them. The high number of EW detections of NVA artillery sites caused 7th Fleet to order a 'crash' program of fitting radar noise jammers to counter the threat in 1967. RAN ships had well-trained and effective EW teams as part of their ships' companies, but it appears that no electronic intelligence operators were embarked for special collection tasks.[793]

In January 1968, intelligence suggested a more serious threat to the safety of SEA DRAGON ships in the shape of the SSN-2 Styx surface-to-surface missile. With a range of 15-20nm and an in-built radar homing head, this Soviet designed missile flew at high-subsonic speed and carried a warhead sufficient to sink or seriously damage a destroyer-sized target. The intelligence report was associated with a site at Thanh Hoa where a surface-to-air missile complex was reported in February 1968, the premise being that the SSN-2 would defend the site by keeping SEA DRAGON ships well to seaward and beyond gun range. The threat – although never confirmed – had the desired effect, and ships were ordered to remain outside 20nm from the North Vietnamese coast at that point.[794]

The third source of intelligence was found in the 7th Fleet operation orders covering all maritime operations, including SEA DRAGON. These contained basic information on the operating environment and enemy defence likely to be encountered. Later and more detailed intelligence on targets, radar sites, coastal defences and lucrative WBLC zones were signalled as the information came to hand. Messages of long-term significance were designated 'turn over' messages and sequentially numbered. They were incorporated in the turnover packs maintained by SEA DRAGON ships for their reliefs and periodically superseded by printed amendments to the operation orders. This system ensured that ships assigned to SEA DRAGON or other operations could reliably be made familiar with changes in the situation when they arrived to join the relevant task group.[795]

The guided missile destroyer HMAS *Hobart* fires one
of her 5-inch guns on the gunline off Vietnam, 1968
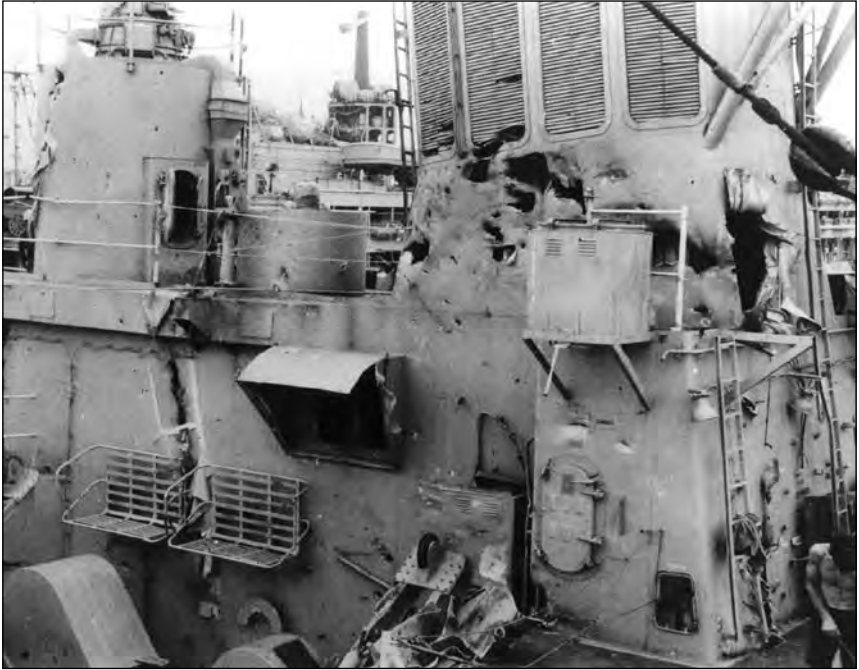
Damage received by HMAS *Hobart* after being hit
by missile from a US Air Force aircraft

Finally, to help identify potential WBLCs and distinguish between fishing boats, which were numerous off the coasts of both South and North Vietnam, and cargo-carrying trawlers, ships were provided with a recognition guide called the *Junk Blue Book*. Interdiction of WBLCs was sometimes carried out with the assistance of aerial reconnaissance, but ships also engaged surface targets on the basis of their own identifications. Merchant ship recognition manuals, such as ONI−361J, *Communist Bloc Merchant Ships*, were also carried, but a review of SEA DRAGON in July 1967 found that this was inadequate, as it included only Communist-flagged ships and did not extend to those non-Communist registry ships hired by bloc countries.[796]

This body of intelligence applied to the SEA DRAGON tasks produced worthwhile results. Photo-reconnaissance missions gave a good indication of the likelihood of an enemy reaction from coastal defences and also located any accumulations of WBLCs in DRV ports.[797] USN analysis revealed a direct correlation between WBLC activity and the number of ships on SEA DRAGON patrols, and in mid-1967 an increase in 7th Fleet activity produced a significant reduction in WBLC detections and sinkings. For ground

attack, SEA DRAGON ships were allocated targets 24 hours in advance, predicated on the latest reconnaissance and other intelligence, with CTUs responsible for developing plans of attack.[798] For daytime engagements ships could call upon 7th Fleet carrier aircraft to spot their fire, and the USN experimented with a remotely controlled TV-equipped drone system, codenamed 'Snoopy', for the same purpose.

Against this generally positive intelligence picture, SEA DRAGON was the scene of the RAN's most serious setback of the war, when *Hobart* (among other ships) was attacked and hit by missiles fired by USAF aircraft on the night of 16–17 June 1968. A contributing cause of this 'friendly fire' incident was an intelligence report stating that NVA helicopters were being used to resupply Tiger Island, about 13nm to seaward of the DMZ – a site used by the NVA to monitor and alert coastal defences to SEA DRAGON ship activity. *Hobart's* Task Unit and the USAF fighters patrolling in the vicinity of the island were alert to this possibility, and the fighters misidentified the ships as helicopters and attacked. The problem was a lack of effective coordination, one with a considerable and unfortunate history.[799]

Another intelligence shortcoming was in spotting NGS shoots. In common with their predecessors in Korea, RAN commanding officers were sceptical of the value of unspotted engagements of shore targets.[800] This was a particular problem in North Vietnam, where shoots at night or in bad weather precluded any realistic assessment of damage inflicted, but it also occurred in the South during so-called harassment and interdiction (H&I) fire missions. This scepticism was well founded, reflecting the experience gained in the Korean War, but again not acted upon during the later conflict.

Nevertheless, SEA DRAGON was a successful operation that denied North Vietnam effective use of its sea frontier to channel supplies to forces in the south, and it did considerable damage to the military and transportation infrastructure along the North's seaboard.[801] Retaliatory damage inflicted on Allied ships was slight, while the NVA was compelled to divert some of its artillery and surveillance resources to countering the Allied operation.[802] RAN ships made a substantial contribution to this success, not just in their performance, but in their overall conduct of the operation under the threat of enemy retaliation.[803] But they were working with a virtually complete intelligence jigsaw.

## Operation MARKET TIME

Surveillance and control of RVN coastal waters was a long-standing problem: the USN had stepped in to assist in Vietnamese coastal surveillance as early as November 1961.[804] The US intervention with MARKET TIME arose from evidence of the ease with which the NVA was infiltrating supplies into South Vietnam in 1964 and 1965, and the perceived reluctance of the RVN Navy to take effective action to prevent this.[805] As noted previously, by mid-1965 MARKET TIME operations were being conducted in

three patrol zones under the direction of COMNAVFORV and the operational control of CTF 115, with destroyers patrolling a zone at about 20nm from the coast. Units of the 7th Fleet were assigned to MARKET TIME duty at the same time as providing NGS for Allied forces. Headquarters for the operation was the Surveillance Operations Center in Saigon, with a string of nine coastal surveillance centres responsible for local direction of operations. These changes in organisation and responsibility did not immediately increase interceptions and, following a review of MARKET TIME in September 1965, more resources were assigned to all patrol zones.[806]

By the time RAN destroyers appeared, the organisation was working well and the steady work of the RVN Navy, USN and US Coast Guard patrol craft had reduced NVA coastal infiltration attempts to a trickle.[807] However, the task of ensuring that the many thousands of craft in Vietnamese coastal waters had a legitimate reason for being there continued. A heavier responsibility was taken by the patrolling destroyers after an April 1969 decision that 7th Fleet ships would take up the slack when inshore patrol vessels were released for riverine operations, and that the outer aerial patrols would be discontinued. The main contribution by RAN ships was in maintaining a surface plot from which other MARKET TIME patrol forces could be directed into interceptions, but on occasion RAN ships took a direct role in MARKET TIME and destroyed WBLCs attempting to land in the RVN.[808] Subsidiary tasks were the rendering of lifesaving and medical assistance to Vietnamese craft. [809]

Intelligence support to MARKET TIME has been described in the CDT 3 section. It became possible for coastal surveillance centres to direct cooperating warships into positions to intercept WBLCs on the basis of intelligence analysis, and there was also a strong correlation between areas of enemy activity and resupply efforts. The VC strongly dominated the area south of Quang Ngai, which was a suspected area of frequent infiltration from the sea, land access being denied or hindered by Allied ground force activities. To this extent, the NGS task and the contribution to MARKET TIME were complementary. Indeed, the October 1970 interception of WBLCs by *Perth* occurred during a scheduled period of H&I firings not far from Quang Ngai. This kind of intelligence, painstakingly built up through cooperation between ground and coastal intelligence agencies, could generate excellent results if applied intelligently.

## On the Gunline — NGS in South Vietnam

The need for NGS for ground forces was recognised in 1965 when operations by the US Marine Corps and ARVN in coastal regions began. Initially opposed by the RVN Government, the bombardment of enemy positions from the sea was approved in mid-1965, and continued as a feature of the war until the withdrawal of Allied naval forces.[810] As in Korea, the flexibility of NGS commended itself to Army and Marine units as a supplement to and, on occasion, a substitute for organic artillery, although provincial

authorities needed to be consulted before fire missions could be called to ensure that more damage would be done to the enemy than to the friendly population.

Targets for NGS ships were designated in two ways. First, they could be indicated by a shore fire-control party acting in support of ground forces. Until Vietnamisation took effect, the Marine Corps 1st Air and Naval Gunfire Liaison Company (ANGLICO) provided these parties.[811] The ship assigned for duty with that force would respond to a call for fire, and the spotter would correct the fall of shot until the target had been destroyed or neutralised. The second method was H&I fire, where coordinates were given to the ship and a certain number of rounds to be delivered at those coordinates were specified. The important difference for NGS ships was that, in the first case, they knew what they were firing at (or what the spotter said they were firing at), and they would usually receive a gun-damage assessment following the action. In the case of H&I, the target was frequently unspecified – usually it would be road junction, a path or a bridge, or even an area of territory frequented by the enemy. There would be no indication of whether the ship's fire had hit the target, nor any other damage assessment.

In contrast with the situation in SEA DRAGON, gunline ships were not liable to receive return fire from coastal defences, nor be subject to air attack. As the charts provided by the USN were generally good, there were none of the navigational difficulties that had so influenced NGS in the Korean War.[812] Mining was generally a possibility only in I Corps in the vicinity of the Cua Viet River, where NVA water mines intended to disrupt Allied river traffic could well be washed out to sea. Nevertheless, it was the ANGLICO HQ section's responsibility to advise the NGS ship of any waters suspected of being mined.[813] As they were unlit, Vietnamese fishing boats could constitute a navigational hazard, and their nets, fishing stakes and floats were potential 'ship-stoppers' if caught around the propellors.

After November 1968, when SEA DRAGON patrols were suspended, NGS was the major contribution of the RAN destroyers to the war. Intelligence on the situation ashore, including the locations of friendly troops and the suspected positions of the enemy, was provided directly to the NGS ship by the ANGLICO HQ section. Specific information on the targets to be engaged came from the ANGLICO spotters. Whenever possible, ships would arrange for briefings by Corps NGS liaison officers before commencing a period of bombardments in support of ground forces. These were good opportunities for gaining local intelligence of immediate value to the mission, and also opportunities for the Australians to explain the capabilities of their systems and their views on the value of the various modes of fire. RAN commanding officers were averse to expending valuable ammunition (and incurring barrel wear) on targets of limited or marginal value. As Captain Griffiths, RAN, of *Hobart*, put it after the ship's first deployment: 'It became quickly apparent that tough judgment was necessary to reduce the shore demand to a practical and economical level of ammunition expenditure'.[814]

Shore battery fire falls clear of HMAS *Hobart* while on the gunline

Such decisions were the prerogative of the commander of the NGS ship, but they had to be informed by the intelligence provided by the spotter. Clearly, there were occasions when the relative importance of the target called was not immediately obvious to the ship's fire-control team and others where the request for fire appeared to contravene the terms of the RAN directive:

> A lot of the spotters liked to think they were in the heat of battle…There was one incident where a spotter came on who, in the description of the target said a 'first aid post'. I came back to the spotter and grabbed the microphone and said that there was no way I was going to open up on a first aid post … and I never heard anything about it again.[815]

During the course of successive deployments, RAN destroyers spent a major part of their 7th Fleet time assigned to the gunline. With their 5-inch (127mm) guns, which had both a longer range and heavier hitting power than the majority of field artillery (105mm), they were able to engage both area and point targets, often in weather poor enough to hamper or abort air strikes.[816] The tempo of operations varied considerably, with frequent calls for fire in I Corps and more leisurely level of activity in IV Corps. While it was on occasion difficult for an ARVN unit to get clearance from provincial authorities in time for the shoot to continue, there was no such problem regarding the U Minh Forest area, on the west coast, of IV Corps. The forest had been surrounded by sensors, providing intelligence targets of VC activity, as well as well as harassment opportunities.[817] Otherwise, as in Korea, the intelligence support for the NGS missions came from the spotter on the scene.

When the decision to withdraw the destroyers from Vietnam came into effect in September 1971, there had been nine deployments by RAN ships to the 7th Fleet. All had been marked by competent and effective performance in all the roles assigned. The RAN had gained a good deal of valuable experience in operations in a modern high-intensity environment. The exposure of RAN command teams and individuals to the complexities of modern warfare alongside the USN was instrumental in shaping the outlook of a generation of naval personnel, many of whom were to rise to senior rank.

In terms of their contribution to the war effort, the RAN destroyers made minimal impact. Nevertheless, their effective use of intelligence was a contribution to the operational ethos of the maritime war. The USN was impressed by the way the RAN handled its ships, and the longer operational experience and depth of training of their Australian counterparts was instrumental in demonstrating that there were other than standard USN ways of approaching and solving problems in coastal warfare. There were lessons that could be learned by both parties.

The RAN destroyers were well-supported by intelligence – the jigsaw they had to work from was complete. Although intelligence was not always totally accurate, ships were not hazarded nor their missions imperiled by any lack of it. One interesting facet of the

interviews conducted by the author with veterans of this campaign was the apparent lack of any conscious memory of intelligence as an issue. It was there for them to use when they needed it, and they used it effectively as their results attest. The experience of the destroyers in Vietnam is an encouraging study of how well intelligence had become integrated in 7th Fleet operations, and the operation of the intelligence cycle in its optimum mode in combat support.

## RAN Helicopter Flight Vietnam

It was not until 14 July 1967 that the Minister for Defence announced the dispatch of naval helicopter crews to Vietnam. This followed a succession of discussions with the United States and within the Australian Department of Defence on how Australia might respond to US requests for additional assistance with helicopters and aircrew, which would not necessarily be deployed in support of the 1st Australian Task Force in Phuoc Tuy Province.[818]

The RANHFV was one of the most unusual military deployments in the history of the RAN, in which a party of naval pilots, observers and technical and administrative personnel were grafted onto a US Army assault helicopter company (AHC). The result was appropriately termed an 'experimental military unit'. Moreover, the background of the aircrew was in ASW: the skills required in an army assault helicopter organisation had to be learned almost on the job. This unusual operational arrangement also brought with it an intelligence environment markedly dissimilar from normal RAN helicopter flying requirements. In preparing for this very different role, the first contingent underwent an intensive seven-week training period in Australia. The program was structured around the acquisition of military skills: field living, jungle survival, small arms, some colloquial Vietnamese, code of conduct training and familiarisation with US Army operational procedures, tactics and general field doctrine.[819]

The lead elements of RANHFV joined the balance of the 135th AHC in Vung Tau in October 1967 after which the unit's American and Australian aircrew were dispersed to other AHCs to gain first-hand experience of Vietnam flying. The 135th became operational on 2 November 1967, with the mission of providing an air-mobile capability for Allied forces in IV Corps. This involved the AHC in transporting troops from their bases, delivering them to landing zones (LZ) near their selected areas of operations and recovering them on completion of their task.[820]

These troop insertion operations involved a number of troop-carrying helicopters – 'slicks', armed helicopters, 'gunships' – to provide suppressive and supportive fire for the troops, and a command-and-control helicopter in charge of the air segment of the operation. The command helicopter normally embarked the commander of the troops, his US adviser (where appropriate) and representatives of supporting arms,

such as artillery.[821] The 135th AHC had two 'lift platoons', each with 11 helicopters, and a gunship platoon of eight aircraft, plus command-and-control (C&C) capable aircraft. The command organisation for the unit, based on Grey, *Up Top*, is outlined at Figure 10. Operations planning was the responsibility of the AHC's operations staff, to which RAN observers (non-pilot aircrew) were attached.

The intelligence to support the 135th's operations was provided largely by its regional headquarters at the 164th Air Group. An RAN officer who worked for some time at group level commented:

> There you were privy to another form of intelligence, which was the III Corps situation. It also had an overview of the whole of the operations, and that's where I learned why intelligence wasn't very good. There were no objectives; everything altered from day to day depending on the political situation in either South Vietnam or the United States.[822]
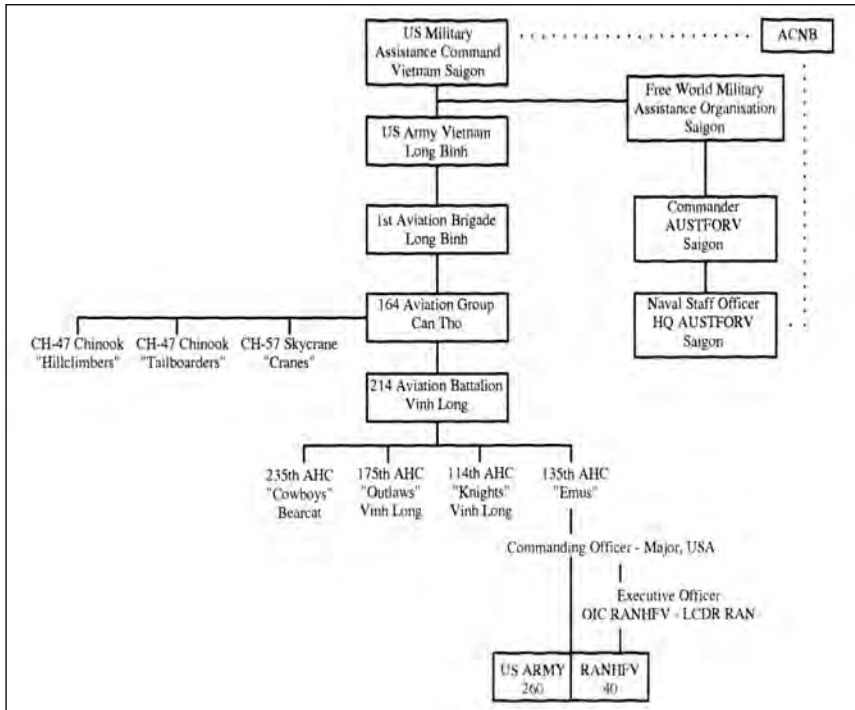


Figure 10 - RANHFV Command Organisation

At the AHC level, orders (requests) for the next day's operations, and intelligence to support them, was provided from 214 Aviation Battalion HQ in mid-afternoon. The intelligence picture provided by Battalion HQ and presented at the 135th pre-mission briefing was adequate, just, to get the job underway:

> The amount of intelligence, and the important intelligence that you wanted at any time when you were briefing these people to go on a mission, was limited. What you really wanted to know was the size of the force that they were likely to encounter, and whether it had the most deadly of their weapons – the rocket propelled grenade. If you knew those with certainty, you could employ a certain kind of tactic to go in, but you didn't know that with certainty, and the concentration of the force was always unknown.[823]

It was the task of the company operations staff to incorporate this new information into its own planning processes and prepare maps and briefing sheets for the aircrew. Because 135th aircraft frequently had to fly considerable distances to collect their troops for the day's operation, involving early morning departures, briefings were usually conducted the night before.[824]



An RANHFV slick inserting troops. RAN pilots
proved themselves adept in Vietnam no matter the conditions

Nevertheless, good intelligence was a highly important element in planning each troop insertion. The LZ needed to be chosen with appropriate consideration for the ease with which the AHC could deliver the troops, the distance of the LZ from contact with the enemy and the availability of cover, both for the benefit of friendly forces and as concealment for an enemy contesting the landing.[825] This planning was the responsibility of the ground force commander, just as provision of intelligence to support these decisions was the responsibility of the force being lifted. When the 135th aircraft rendezvoused with the force being lifted, the most recent intelligence was provided by the land commander to the C&C helicopter commander, and the salient points passed to the lift and gunship platoon commanders, who in turn briefed the gunship and slick pilots in command. En route to the LZ, intelligence was refined by radio, with the C&C commander and the land commander cooperating to use the assets available to achieve their mission.[826] The operational command matrix under which RANHFV operated is described in Figure 11, which comes from Grey, *Up Top*.
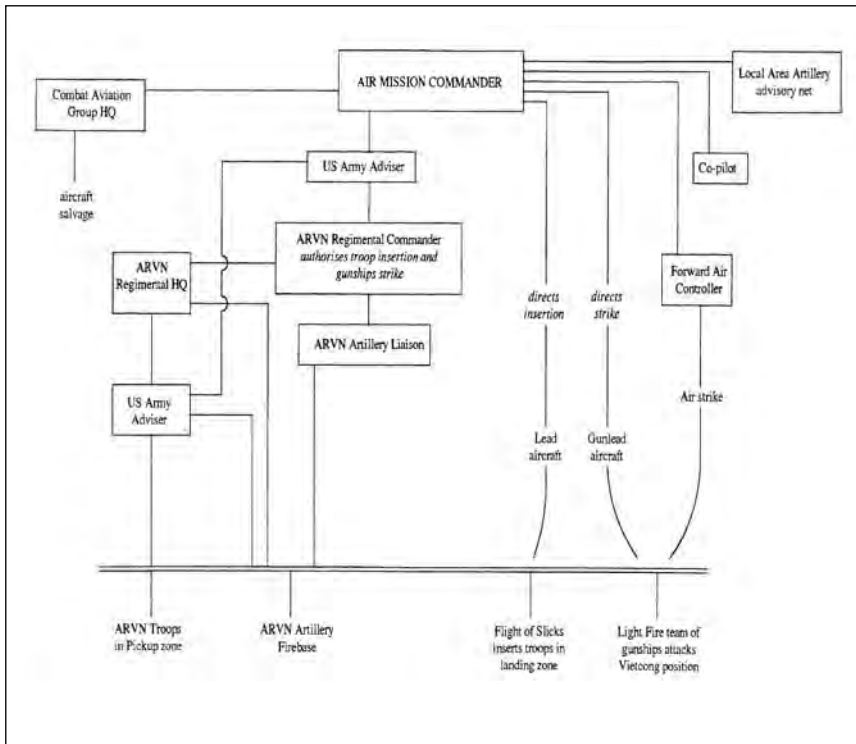


Figure 11 - RANHFV Operations Matrix

As can be appreciated, in this attenuated intelligence support system, the quality of the intelligence and the soundness of the decisions deriving from it varied. The 135th soon instituted its own intelligence appreciations of LZs. In May 1968, after a particularly effective VC ambush of a troop insertion at a site nominated by the ARVN 25th Division, the 135th decided that, if the original LZ seemed too 'hot', an alternative would be selected 'on the run' by the ground force commander in the C&C helicopter.

The intelligence support for this type of decision was totally empirical. If the VC gave away their position by firing on the aircraft before the insertion had begun, either another site would be chosen or, depending on the volume of fire, gunships would be called in to neutralise the enemy before the troops were landed. When the US Army was the 'customer', insertions could also call on artillery to put rounds into the LZ area to flush out any ambushers.[827] However, it was not long before the VC realised that better ambush results could be obtained if they withheld their fire, and the slicks began to take more serious hits and suffer casualties after they were committed to insertions.[828]

In May 1968, a counter to this was developed in which a specially modified helicopter laid smoke across the LZ to screen the arrival of the slicks. This tactic proved immediately successful, although it did initially expose the 'smoke ship' to the whole extent of enemy fire.[829] However, while some choice of LZ was feasible during troop insertions, when lifting troops out the aircraft had to fly to where they were. Recoveries while under fire were always dangerous.

There was, as well, some controversy about the US Army practice of marking LZs with smoke to aid the slicks to identify the right place. Intelligence suggested that dropping smoke grenades not only alerted the VC and destroyed the element of surprise, but also enabled them to set their ambushes to best effect. The tactic of saturating the jungle surrounding the LZ with suppressive fire from the gunships was said to have the same result. Based on this intelligence, the second RANHFV contingent devised the 'GCA' method, where the air commander directed slicks to the LZ using FM radio, which, it was (incorrectly) believed, could not be intercepted by VC Sigint.[830]

In its initial period of operations, the 135th flew from Vung Tau, but in December 1967 it relocated to Camp Blackhorse in Long Khan Province. The AHC now found itself with a wider variety and geographic spread of customers, including Australian, ARVN and US units. Shortly thereafter, the company became involved in the support of units countering the 1968 Tet offensive by the Communists, suffering their first fatal casualties, especially among the slicks. A feature of firefights in mid-1968 was the *VC*'s use of 'spider holes', covered dugouts from which to snipe at aircraft and disembarking troops before disappearing under the concrete lids fitted to the holes. The enemy's foresight in constructing fortifications like these near LZs reflected poorly on the accuracy of the intelligence and aerial reconnaissance used in their selection.

Intelligence also noted that the VC tended to lay low during daylight, becoming active around 1700. This trait necessitated the adoption of night attacks.[831]

Because of a reassignment of the 135th to the 222nd Aviation Battalion, another relocation – this time to Camp Bearcat in Bien Hoa Province – occurred in November 1968. The move introduced the unit to operations in IV Corps as well as in III Corps. Map 28, taken from Marolda & Fitzgerald, *Vietnam Conflict*, shows the unit's general area of operations from this period on. Ground-force operations in the latter half of 1968 had had the desired effect of breaking up enemy formations into smaller companies or platoons.

Beginning in 1969, Allied formations acting on intelligence to gain contact with these forces would call in strikes by helicopter gunships to help destroy, disperse or capture these smaller VC parties. These so-called 'Eagle' flights were immediately effective and enabled the 135th to settle some scores. The VC were not always less of a threat when in retreat, but it was easier to fire effectively on a unit on the move than in ambush.[832] As well, some areas where a VC presence was known would be declared 'free fire' zones, into which any helicopter could fire at will.

Another source of AHC intelligence was the information gathered by 'swing ships', single slicks sent out to liaise with the ARVN units the 135th and other companies in the battalion were supporting. ARVN staff would join the helicopter and then be flown to nearby villages, where they would discuss sightings or evidence of VC with the village chiefs. 'At that time the loyalties of the local population were often dependent on who was closest to the village and what would result in the greatest benefit or chance of unhindered survival to them'.[833]

This information, too, was passed back to HQ Battalion for evaluation and correlation, not to the AHC, and was more likely to be reflected in the operation orders two days later than in orders for the following day. But in many cases, the AHC continued to collect its own intelligence on the enemy:

> Our familiarity with the terrain, population habits, vegetation etc. often proved valuable in alerting flights … As an example, new footprints could be seen in wet areas from a height of about 1500 feet. Disturbed vegetation was a sure sign that someone had been in the immediate area shortly before.[834]

Most intelligence support to the 135th's troop insertion operations was thus either invisible to the aircrew or ad hoc. Exceptions to this rule were the relatively infrequent missions flown by the company in support of the USN SEALs. These were planned and briefed most carefully, as they relied for their success on the use of the minimum force size and as much stealth as could be coaxed out of the noisy UH-1 helicopter. Good intelligence and its correct application to the operations were essential, and the
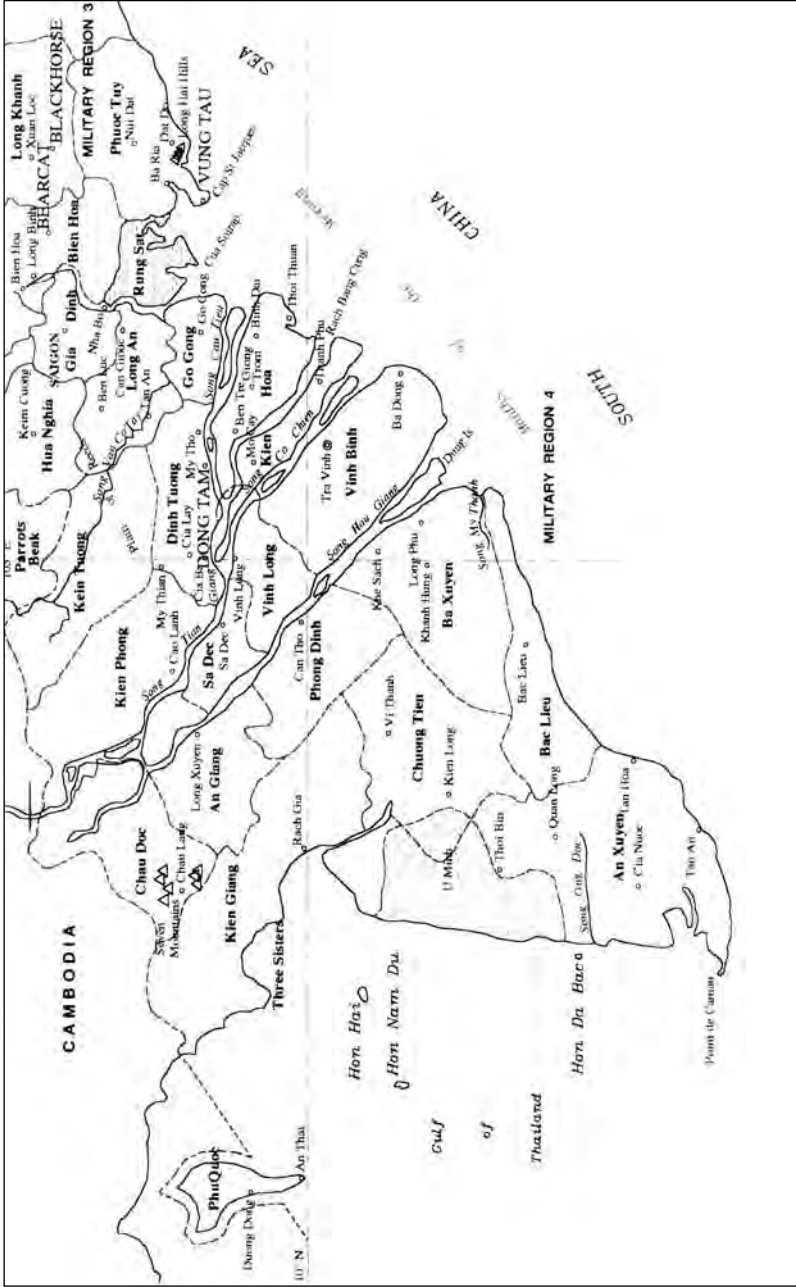
Map 28 - RAN Helicopter Flight Vietnam Operations Area, 1967–71

RAN aircrew were more familiar with and impressed by the planning and execution of these missions:

> Again, input to mission planning was minimal, as the target was only known immediately prior to take-off. The C&C, again, could nominate approach and departure routes and discuss what degree of control, if any, was to be used throughout the mission. Most raids, especially those in support of the SEALs, were highly effective primarily, I believe, because the information on which the raid was based used up-to-date intelligence, and was known in advance by as few people as possible. They were also very satisfying, in the professional sense due, to the high level of skill required.[835]

In July 1969, Vietnamisation began in earnest, with the US 9th Division withdrawal from III Corps. Field operations were now the responsibility of the ARVN and Regional/Popular Forces units. This placed the 135th in the unique position of flying almost exclusively in support of the Vietnamese. The new situation introduced a number of operational factors, as the Vietnamese were far more dependent upon the air support provided by US Army aviation companies in their prosecution of operations. But it also raised the prickly question of ARVN intelligence and security. However, it wasn't only ARVN intelligence that was suspect:

> I attended an intelligence briefing at Div HQ. During the briefing the US presentation started to describe an action in which I had been the C&C on the previous day. His glowing description of events was completely opposite to what had actually occurred… after the briefing he told me that we could not reveal that type of information to the ARVN as they might get a negative impression of the progress of the war.[836]

Suspicions on the part of the Western allies that elements of the Vietnamese armed forces were in fact agents of the NVA and VC were frequently confirmed:

> The enemy … had almost unlimited access to information from all sources … largely due to the fact that large numbers of communist sympathisers were conscripted into the ARVN, civilian sympathisers worked within military bases and were able to provide information on troop movements through rural areas.[837]

In the 135th AHC's case, treachery appears to have featured in two ugly incidents. On 6 March 1970, an Australian pilot received multiple wounds and his helicopter was written off when it landed on a booby-trapped LZ in a declared secure area to which it was guided by an ARVN soldier. On 4 February 1971, a troop insertion at Giong Trom was ambushed as a result of treachery and a considerable number of the ARVN

force being inserted were killed or wounded during disembarkation. In the melee all of the slicks were hit, and the air commander, Lieutenant Commander WP James, RAN, was awarded the Distinguished Service Cross for his part in the ensuing rescue operation.[838]

January 1970 saw the introduction of a new form of interdiction aimed at the VC and NVA units using infiltration routes into South Vietnam from Cambodia. Intelligence revealed the routes in use, and a C&C aircraft would fly low to illuminate the trails with a searchlight. On detection of movement, a second helicopter would drop flares and two gunships would strafe the area. It is not clear whether these operations were speculative or triggered as the result of detections by sensors implanted along the trails. The impression is that the intelligence support for these missions came from a combination of implanted sensors, photo reconnaissance and Sigint. The risk to aircraft was as much from the physical environment as from the enemy as at least one 135th gunship collided with a tree but was able to return to base.[839]

By September 1970, the 13th had made another relocation, this time to Dong Tam in Dinh Tuong Province, the site of a major USN riverine warfare base. The base attracted much VC attention, and the AHC came under fire many times. This part of its service in Vietnam saw the 135th involved in a number of riverine operations in the Delta area and against VC located in the U Minh Forest. As in the case of the destroyers providing NGS in support of these operations, the helicopters had the benefit of sensor intelligence, but exploiting it was not easy, and the well-entrenched VC were able to make insertions very costly for the slicks. This was not so much an inadequacy of the intelligence provided, but a measure of the enemy's intelligence on how to disable US Army helicopters.

In May 1971, it was decided not to replace the RANHFV, and the RAN aircrew ceased flying operations on 8 June, departing the country via Vung Tau shortly afterwards. The experimental military unit was at an end. Within the company, the contribution made individually and collectively by the RAN aircrew had been enormous. The RAN personnel were not only better trained but had more military experience than many of the US Army replacement personnel, and as a consequence it was not uncommon for RAN personnel of quite modest rank to hold a position of higher responsibility in the 135th AHC.[840]

The war-fighting experience gained by RANHFV was unique and of a far higher level than those RAN and RAAF aircrew who flew almost exclusively with the RAAF 9 Squadron in support of 1ATF. The environment was vastly different from the oceanic battlefield of ASW, and the tactics were also a far remove from the role for which the RAN personnel had been trained. However, the application of intelligence was not that much different. Aircraft commanders were accustomed to take decisions on fleeting sonar contacts and accept the responsibility for initiating immediate action. RAN ASW helicopters could and did exercise control over other helicopters and fixed-wing aircraft, and even ships in certain operational circumstances. For RANHFV personnel, it was the operational environment that was different as submarines rarely shoot back.

It is difficult to assess categorically whether the 135th AHC was well supported by intelligence. In retrospect, one could argue that better surveillance of selected LZs would have reduced personnel and aircraft casualties, but this was neither always possible nor desirable when dealing with fleeting contacts of a human kind. The company would undoubtedly have wished for more reliable ARVN information on what they were flying into and some kind of assurance that the operational plan had not been betrayed to the enemy. But their job was to convey ground troops to their selected destinations, not to plan the operations. This was the task of others who may or may not have thoughtfully applied the intelligence at their disposal:

> As a small cog in a big wheel, and overworked to blazes, HFV had little opportunity to explore outside the berm – not that it would have helped, as tomorrow's ops might be 50–100 miles away.[841]

The intelligence picture with which the AHC had to work was thus less of a jigsaw than a kaleidoscope, where a different arrangement of pieces of the puzzle resulted in a different picture. However, the 135th's performance over the four-year period of its existence suggests that it used what it had to best effect to 'Get the Bloody Job Done', as the unit's motto proclaimed. The last word belongs to a RANHFV pilot:

> An AHC can't fly 3500+ hours a month involving a number of missions every day based on detailed intelligence gathering etc. To a large extent it was a war of statistics and I am sure that many missions must have been flown without any useful intelligence at all.[842]

## Outcomes

At the strategic level, Australia's involvement in military operations in Vietnam was the outcome of a policy chosen, generally deliberately, by a series of Australian governments from the end of WWII. On completion of Australian involvement in Vietnam, the nation had become a close ally of the United States and earned the right to some recognition for its contribution to the furtherance of US (and Australian) policy in Southeast Asia. At the political level, there was acceptance in the United States of Australia's regional role and influence. At the end of the day, strategic level intelligence on how to achieve victory in Vietnam was found wanting.

Operationally, in contrast to Korea and, to an extent, Confrontation, the RAN units that served in Vietnam began operations with a reasonably complete understanding of their roles, backed by generally appropriate training and preparation for the tasks ahead. They had the benefit of the experience gained by the USN and US Army in their respective fields for three years or longer, and were able to become part of the US military infrastructure and remain in touch with evolving operational, intelligence and

doctrinal changes. The Australians seldom initiated these because they did not occupy positions on staffs responsible for devising and implementing changes. However, the RAN may have triggered a reappraisal of USN philosophies. CDT 3 demonstrated how an important harbour could be protected from the enemy swimmer/sapper, while the RAN's training and maintenance philosophies for the destroyers, and the superiority of their NGS procedures, also made an impact on 7th Fleet thinking. Largely through the expertise and experience of its RAN aircrew and ground staff, the 135th AHC built such a high reputation for itself that it became the helicopter company of choice for many Allied units.

The competence with which the RAN destroyers and CDT 3 discharged their operational responsibilities in a high-intensity environment impressed the USN, and this can be seen as an adjunct to the military esteem that Australia gained from its Vietnam involvement. Over the years to come, a number of opportunities were extended to Australia to join military dialogue groups and information exchanges and to participate in high-level operational exercises sponsored by the United States.[843] These invitations might have come in any case, but it is arguable that Vietnam accelerated them. There is an undoubted affinity between personnel of different navies who wear the same medal ribbons, especially those won in an operational context.

The experience of Vietnam produced a new wave of thinking in the RAN on how ships should be equipped, trained and operated, and led to quite marked changes in its operational and fleet training concepts. The influence of Vietnam on RAN intelligence is another matter. Early efforts by DNI to establish an independent source of intelligence on the RVN Navy were unsuccessful, as the issue did not rate a high enough priority in the allocation of skilled resources. Later, despite ad hoc collection by CDT 3 in response to requests from Navy Office and the assembly of a collection of recovered ordnance by the same unit, the RAN appears to have been content to rely on US sources, especially for its operational intelligence. In fact, it had little option but to do so. The remarks made by the BDM Corporation about the US intelligence effort ring equally true for the RAN:

> If the intelligence effort is to succeed in the first critical period of a crisis, there must exist a sufficient body of trained intelligence personnel in all specialities of the intelligence field and personnel activities must have the capability of identifying and assigning to appropriate headquarters, field organisations and combat units the requisite intelligence specialists.[844]

However, the RAN learned much about the application of intelligence to operations in Vietnam. CDT 3 ensured it had the intelligence to perform its tasks safely and well. CDT 3 members were experts, read the manuals, attended refresher courses and, when the need arose, sought additional intelligence from wherever it could be found. They carefully recorded the operational knowledge gained for the benefit of their successors, although there is some doubt that the RAN appropriately preserved the knowledge.

RANHFV operated in a very different environment, where operations were conducted on the basis of somebody else's planning, using intelligence the AHC had not seen. This led the company on occasion into horrendous circumstances from which only personnel skills and resolve could extricate the aircraft and their precious cargoes. If anything, theirs was an example of insufficient intelligence support for operations, but the 135th AHC was 'only a small cog in a big machine'. Despite this drawback, the professionalism of the RAN element of the 135th enabled it to earn a high reputation for efficiency, which in turn led to it being called upon to take on more numerous and more difficult missions. The levels of fatigue this engendered could have been more serious for a less well-organised formation.

The destroyers on the gunline enjoyed the benefits of working within a professional and operational milieu. Sound intelligence was just one of the tools issued by the US 7th Fleet for the task, so much so that few of the veterans even recall it being there – good operational intelligence was so consistently provided that it was taken for granted. It only became an issue when it was not there, such as for *Hobart* at Tiger Island.

The RAN's ability to match the tasks set with the appropriate mix of experienced and skilled manpower should also be remarked upon, as it stands in marked contrast to the RAN's readiness for the demands of previous campaigns, such as the war against Japan and the Korean conflict. In Vietnam, it was the US forces that had to deal with the problems of equipment obsolescence and inadequately trained personnel, and the consequences of both. The RAN units sent to Vietnam were fully trained and manned, and the fact that only discrete segments of the RAN were engaged meant the best of its manpower could be sent. But the RAN had only one war to fight.[845] Again, however, this preparedness did not extend to intelligence personnel. There were few naval officers in that professional calling, and none who could be spared to assist the USN.

Despite very creditable performances by RAN commanding officers in discharging often onerous responsibilities as CTUs, no opportunities were apparently presented or created for senior RAN officers to gain experience in the workings of a large fleet staff. Ironically, good officers were attached to SEATO Headquarters, but their work was ultimately in vain for, despite all the planning put in by the organisation in defending its 'protocol states', its services were not required. SEATO was divided on the issue of intervention in Vietnam, and South Vietnam never asked for SEATO assistance.[846]

Once more, the development of language skills for the RAN's operational forces in Vietnam was totally inadequate, especially for CDT 3 and RANHFV. Both were wholly reliant on the availability of English-speaking Vietnamese or USN advisers to gain intelligence and conduct operations in support of ARVN. Yet the situation in Vietnam had been of concern to the Australian Government and the Defence Committee from the late 1950s, and the first requests for military assistance had been made in 1962, five years before RAN elements were committed.

# 8. Final Observations and Conclusions

This examination of Australian naval operations and the intelligence which supported them has covered, briefly, a period of 32 years. In September 1939, the Australian Squadron was an integral part of a British Imperial Navy whose roles, order-of-battle and deployment were largely decided by the Admiralty in London. The ships, the organisation, the training and the senior manning of the RAN were all British. By September 1971 when HMAS *Brisbane*, a product of the United States, departed Subic Bay and shifted back to the operational command of the Australian Fleet Commander, she returned to a Navy much changed. Australia had decided upon equipment commonality with the United States in the 1950s, and the decisions on whether, what and where to deploy the RAN were taken in Canberra. The RAN's function was 'the conduct of operations at sea for the defence of Australia and Australian interests'.[847] All but specialist training was being conducted in Australia, and Australian officers occupied all the positions of authority in the RAN.

Initially, RAN operational intelligence had followed a similar course. The NID of 1939 was organised as a contributing element of what was termed the Pacific Naval Intelligence Organisation, consisting solely of British and Dominion agencies whose work was largely organised and overseen from London. DNI Commander Long showed considerable indigenous flair in the organisation of the Australian NID but he had few resources, and NID lacked the backing of an Australian intelligence collection and collation organisation on the lines of the Admiralty Operational Intelligence Centre and its Sigint network. By the end of WWII the RAN had vastly improved its collection and collation capabilities by participating in Allied intelligence efforts, including the experience and confidence gained by RAN officers through their work in all major Allied intelligence collection and dissemination organisations.

The end of that conflict saw the birth of an Australian national Sigint organisation, DSB, and the establishment of a strategic intelligence organisation, JIB, followed by ASIO and ASIS. These agencies no longer operated solely in a British orbit, and were designed to make an effective contribution to Australian and Allied intelligence, as well as gaining access for Australia to the product of other Allied organisations. The NID contributed to both enterprises but, at the operational level, the disbandment of the RAN Reserve after the war weakened its capability to support RAN operations.[848] Throughout the conflicts in which the RAN was deployed afterwards, its units were dependent upon the support of Allied organisations. Even RAN tactical collection capabilities, such as photographic reconnaissance and interpretation in Korea, lagged behind developments in other navies.

Against this background of change and development, or atrophy in the case of the NID, there were significant continuities across the period under review. The sea battles of WWII, which became the definition of naval warfare in the minds of many, were relatively isolated interludes in the naval mission. The tasks of the Australian and almost every Allied Navy continued to be the traditional ones of patrol, convoy, blockade and support of land forces. These roles had occupied the majority of the RAN's effort throughout WWII and were undertaken in Korea, Malaya, Indonesian Confrontation and Vietnam as well, even though some had been ignored in RAN force-structure planning. The intelligence support required by forces involved in the execution of these missions showed a similar continuity. The passage of time, the nature of the conflict in which they were engaged and the advance of technology in use in naval warfare did not appreciably change or amend the basic set of questions that any RAN operational commander had about his adversaries.

The methods of gaining that desired intelligence exhibited a similar continuity. In the absence of substantial intelligence, off Cape Spada in 1940 Captain Collins acted on internalised operational values gained from the Mediterranean Fleet command ethos and training. Thirty years later, RANHFV in Vietnam operated on a similar ethos in providing support to their Army customers, where the absence of intelligence was not as important as the successful completion of the mission. Those commanders who could collect their own intelligence did so – Captain Showers in Noumea in 1940, Commander Bracegirdle in Korea in 1951, CDT 3 in Vung Tau in 1967–70. When appropriate and sufficient intelligence was available from external sources – Coral Sea, Biak, Wewak, *Sydney* in Korea, *Teal* during Confrontation, destroyers with the 7th Fleet – it was used well. These examples point to the first major conclusion of this study: RAN operations were planned and attempted on the basis of operational necessity, whether or not there was adequate sound intelligence to support them.

Three further continuities in RAN operations emerge. The first is the difficulty which aircrew exhibited in correctly identifying ships by class, size and purpose in all the conflicts considered. This represented a continuing failure of intelligence because inaccurate or erroneous information from aircraft injected into the intelligence system at the time of Operation WATCHTOWER, as one example, was a significant contributory factor in the debacle of Savo Island.[849] In the early stages of the Korean War, erroneous air force reconnaissance reports of massive NKPA reinforcement and resupply of its forces in South Korea by sea created quite nugatory work for the blockading forces at a time every ship was required for other duties. The misidentification of *Hobart* and other surface units as helicopters by USAF fighters off Vietnam in 1968 had serious, indeed fatal consequences, for the ships they attacked.

The second collateral continuity uncovered is the persistence of a lack of inter-service cooperation in theatres where joint support for operations was clearly called for. The astonishing fact of FRUMEL's intransigence in the denial of information to Central

Bureau, the difficulties encountered in the coordination of air and NGS interdiction of enemy targets in Korea, and the patchy interaction of USAF and USN in Vietnam arguably did have effects on the conduct of the warfighting operations in those conflicts. This study has not measured or made a judgment on the issue, but it is worthy of further research. In contrast, the British joint command of operations during Confrontation set a rare benchmark for future efforts.

The third continuity identified is the inability of defence establishments at a strategic level to develop the language skills required for future conflicts. This issue cropped up time and again in the conflicts considered in this study as a major curb on both strategic and operational intelligence support. There were not enough Japanese linguists for either Australian or Allied intelligence agencies in WWII, and virtually no Korean linguists to assist the RAN operational commanders in their dealings with ROK guerrillas. RAN ships needed to embark English-speaking Malay police to fulfill their roles during Confrontation, and limitations were placed on CDT 3 and RANHFV operations because of a lack of Vietnamese language skills.

Within the limits of the available knowledge of intelligence support provided to RAN operational commanders — and there is frequently wide scope for uncertainty on that issue — the operations examined in this study fall into four separate categories. The first is where intelligence was lacking or inadequate, but where the operation achieved significant success. In this category belong Spurgeon's pursuit of *Romolo*, Showers in Noumea, Collins at Cape Spada, Operation JAYWICK, the hydrographic war 1942–45, and the operations of the RANHFV in Vietnam. Defence of the Australian east coast convoys in 1942–43 also falls into this category, the failure of the defence to destroy IJN submarines being offset by their almost uninterrupted ability to deliver the support required by the Allied forces fighting in Papua and New Guinea.

The second category contains those operations where the intelligence support was inadequate and the operation was unsuccessful. The loss of *Armidale* and the Battle of Savo Island fit here. In the third category belong those operations where intelligence support was adequate but the forces deployed were unable to apply it to produce a successful operational outcome. The two examples are the Battle of Sunda Strait and, arguably, the Battle of the Coral Sea. The action which saw *Sydney* sunk by *Kormoran* is a specific instance, but the campaign against the HSKs as a whole was won convincingly and belongs in the final category, which includes those operations where the quality of intelligence support enhanced the operational outcome.

Biak, Wewak, the east and west coasts of Korea, destroyers with the 7th Fleet and CDT 3 in Vietnam all qualify for this category. Properly supported by intelligence, the operational commanders were all able to deliver results, which not only attained the objectives, but also added lustre to the operational regard in which the RAN was held by its allies and partners. Interestingly, these were all campaigns where commanders had the benefit of the development of modern systems of supporting staffs, both ashore

and afloat. The apparent correlation between operational success and institutional development is worthy of further research.

Two further conclusions emerge from this exercise in categorisation. First, in view of the popular contemporary propensity for placing all operational failures at the door of intelligence, it is worth restating that, while battles have not been won by intelligence alone, they have been lost through inadequate attention to or appreciation of intelligence assessments, as in the case of ABDACOM. Second, in any operation the quality of the commander and the skill with which he has trained and prepared his staff are significant factors in the outcome. An efficient command team melding intelligence with professional skill is a necessary but not sufficient condition for modern military success. The influence of the commander on and through his team is capable of lifting their performance to attain that success. This, plus a generous supply of luck, must explain the success of Operation JAYWICK, when the intelligence on which it was planned seems to have been so seriously flawed.

Turning now to the central question asked by the study: what did intelligence contribute to the RAN operations considered? There are several answers, each relating to a specific campaign. In WWII the RAN was relatively well-informed about its German and Italian enemies through its Admiralty connection. Not only did this allow the RAN units deployed to the Mediterranean and Middle East to perform well operationally, but it confirmed Australian perceptions of its naval contribution in the war.[850] Intelligence, including naval intelligence, tracked the emergence of the Japanese military threat and enabled the Australian Government and the RAN to put their naval defences on alert. Australian insistence on an operational plan as an outcome of the Singapore conferences of 1940–41 and the establishment of COIC in 1941 to watch and report Japanese developments were sparked and supported by intelligence.

However, despite some governmental and naval misgivings about what the British were telling Australia about Japan, the RAN was no better prepared than any other navy to counter the IJN's operational, tactical and technical proficiency when the onslaught came. It was battle experience – the last resort in intelligence collection – that finally dispelled any lingering sense of moral, ethnic or technological superiority and fostered the determination to do better. The shock of Savo opened Rear Admiral Crutchley's eyes to the possibilities of radar and the yawning gulf between that potential and contemporary practice. Intelligence supported the tactical and technical innovations developed in the RAN, exemplified by Crutchley's preparation of TF 74 for the Battle of Biak.

Allied intelligence made solid contributions to all RAN operations after the grim days before September 1942. It is possible to overstate the RAN Coastwatcher Service's contribution in the fighting in the Solomons and Bougainville/New Britain, but it was significant nevertheless.[851] The RAN Hydrographic Service, in its wartime guise as TF 70.5, provided the surveys and charts without which General MacArthur's advance

up the New Guinea coastline and beyond would have been considerably more hazardous. The RAN radio and intercept operators, cryptanalysts and code breakers all contributed to the general supply of intelligence that emerged from 7th Fleet HQ and was used to plan and execute all the operations in which the RAN subsequently took part.

The defence of the east coast convoys from 1942 to 1944 appears to be an aberration in this generally positive assessment. The struggle required, even demanded, the support and cooperation of Allied Air Forces, CANF/C7F, the RAN and the intelligence agencies tracking IJN submarine movements. Yet, despite its importance to GHQ SWPA – and Rear Admiral Barbey was personally involved in its prosecution – it seems not to have attracted the requisite levels of staff and intelligence effort. The ASW Division within Navy Office did not emerge until 1943, when the threat had passed its peak. Recalling the earlier comment concerning the influence of the commander over a campaign, it could be concluded that CNS was not in the best position to take command, nor did he delegate the task to a forceful officer who could have dealt with the issues in a full-time, coordinated manner.[852]

The most impressive feature of the operations of the 1942–45 period is the degree of cooperation and mutual regard between the RAN and its allies. The same cooperation was a feature of the intelligence support organisations. While relations were not always smooth, they were generally cordial and produced outstanding results. In contrast to the operational relationships, which appear to have suffered a partial eclipse in the years after the war, intelligence relationships expanded and solidified. That they did so was a critical issue in ensuring intelligence support for RAN operations in the series of regional conflicts that followed.

Although it would appear that intelligence on the imminence of war on the Korean Peninsula should have been more widely appreciated, this knowledge did not translate into any special preparations on the part of the Australian Government or the RAN. The government was preoccupied with the demilitarisation of Japan on the one hand, and with Australia's nascent role in Southeast Asian security on the other. The RAN was preoccupied in dealing with the block obsolescence of its ships and the expansion of its airpower capabilities, coupled with difficult manpower problems. Fortuitously, Australia's dedication to the BCOF in Japan put the government and the RAN in a position to respond quickly when the call went out for military contingents for Korea. Intelligence preparation and support were much longer in coming.

Intelligence on Korea was the United States' responsibility through General MacArthur's GHQ. On his assumption of UN supreme command, intelligence support of UN forces also became his responsibility. This was poorly discharged. The British Commonwealth naval forces were never provided with the quality of intelligence they required, although they rapidly evolved a system of reasonably effective self-help. The anomalous position of the Joint Operations Center and confused chains of command and

responsibility affected the ability of TG 95.1 to support the left flank of the UN armies. It would appear that senior US decision making was not always in accordance with intelligence, with the prolongation of Operation HAN as one example. USN surprise at the sophistication of the mine threat posed by the NKPA reflects poorly on either the quality of intelligence on the threat or the planning respect it was given. The degree of importance accorded to ASW at the expense of other more productive tasks suggests a similar shortfall in intelligence on Soviet or Chinese intentions and capabilities, or its application to operations.[853]

Research suggests that neither Australia nor the RAN made any attempt to assist its ships or the United Nations generally with the collection or dissemination of intelligence in Korea. The shortage of intelligence specialists on CTG 95.1's staff offered the RAN an opportunity to contribute and learn. This lost opportunity set a trend for the RAN's attitude towards collecting and providing intelligence to its operational commanders.[854]

The RAN contribution to the struggle against the MRLA during the Malayan Emergency was as slight as the intelligence support provided. Naval forces were not deeply engaged in security force operations, and Australian units only participated under the umbrella of the FESR, which had been established to confront perceived Communist expansion into Southeast Asia. This perception was fed by reporting from Australian indigenous agencies and those of its allies and partners in a series of collective defence arrangements born in the early 1950s. The impact of coalition intelligence on naval circles had its effect on the RAN by requiring the development of structures, material and tactics to conduct ASW operations in defence of Allied trade routes in the region. This capability was never deployed operationally, and was at the expense of others that would prove of more immediate value in further regional conflicts.[855]

Principally through the JIB, the Australian Government and Defence were kept informed on the slide of relations between Malaysia and Indonesia towards Confrontation. The government was concerned that while supporting Malaysia it should not create an enemy of Indonesia, and found the deteriorating situation in South Vietnam, a 'protocol state' under the Manila Treaty, an equally pressing issue and a harbinger of the 'domino theory' in practice. The RAN units deployed to Confrontation were 'second tier' and, in the case of the minesweepers, operating well outside the operational envelope for which they were designed, equipped and trained.[856]

Confrontation was the first campaign fought under the new British concept of joint operations and integrated staffs. Personnel from all three services manned both Plans and Intelligence staffs, and although RAN officers served in the Plans Division of this HQ, none were seconded to the Joint Intelligence Staff. Units under CinCFE's command enjoyed intelligence support that melded contributions from all sources, including Sigint. Australia contributed directly through its Sigint resources in Australia and Singapore. These sources, plus the quality of human intelligence gathered at grassroots

level by Malaysia and Singapore, enabled Far East Fleet units to be positioned at the most threatened points of the common sea boundary in West Malaysia, where optimal results in the detection, interception and deterrence of infiltration attempts were achieved. British intelligence and a lack of Indonesian initiative also ensured that Commonwealth patrol forces could be deployed without risk to deter infiltration attempts across the sea boundaries of East Malaysia. The British campaign during Confrontation is a textbook example of the appropriate application of intelligence to such operations.

Australia's involvement in Vietnam was its first without British influence and experience. South Vietnam had been of interest to the Australian Government and the RAN since the 1950s, and there had been a modest attempt by DNI to establish an intelligence collection program on the situation in the country and the performance and capabilities of the RVN Navy. In the absence of the records, it is difficult to know how successful this was and what benefits it produced.[857] Nevertheless, RAN units deploying did have the benefit of first-hand intelligence through the medium of briefings by returned members of the Australian Army Training Team Vietnam. Significantly, there were no opportunities created for the transfer of RAN experience from Confrontation to Vietnam.[858]

Arrangements signed by the RAN with C7F and COMUSMACV provided for the supply of USN and US Army intelligence to RAN units, as appropriate. The nature of this intelligence, at least as far as the United States was concerned, was generalised: it needed to be supplemented at the operational level from local sources. The destroyers on SEA DRAGON patrols enjoyed the benefits of an active and effective 7th Fleet intelligence collection and dissemination organisation, supplying local intelligence from photo reconnaissance and electronic intelligence flights. On NGS duties in South Vietnam, intelligence on targets was provided by the spotters with whom the ships worked. CDT 3 got its local intelligence from a variety of sources, including the units it was supporting. The same was true of RANHFV and its US Army partners in the 135th AHC, although the impact of intelligence on its operations planning was less important than the requirements of the customer for transport and tactical support.

This study therefore concludes that intelligence was important to all RAN operations across the period considered, although the quality, quantity and importance of that support varied. Biak, Wewak and Confrontation provide the best examples of where the intelligence contribution was decisive, just as the absence of a commensurate contribution from intelligence had decisive consequences at Savo and in the sinking of *Armidale*. A void in operational intelligence invariably prompted the development of ad hoc arrangements, such as Showers established in Noumea and the British Commonwealth ships made with local guerrilla groups in Korea. In both cases, the information obtained was instrumental in the success of their missions – they would not have been as successful without that intelligence.

While a lack of adequate intelligence – an incomplete jigsaw – did not deter operational commanders from attempting to carry out their missions, their chances of achieving complete success were boosted if they were properly supported by intelligence. Operations planned and conducted without adequate intelligence support – where the jigsaw had many missing pieces – were more likely to fail or to produce sub-optimal outcomes, but the quality of the operational commander was a factor in all operations, even these.

# Appendix -
# Australian Sigint and Intelligence
# Contributions in WWII

## Codebreaking

It has become accepted fact that the important breaks into Japanese codes before and during WWII were made by the United States, with some assistance from the British. Recent research has uncovered information which demonstrates that the British role was rather more important, and that the Australian contribution to the struggle to break and derive intelligence from Japanese communications was considerable.

The first break into an IJN code was made by Paymaster Lieutenant Nave, RAN, in 1925 during his attachment to the British China Fleet.[859] Nave continued his groundbreaking work in the China Fleet, in London with GC&CS, and later with FECB. His efforts were supported by the RAN's Radio Operators Special, who undertook a number of important tasks of monitoring Japanese communications in the Mandated Islands, including a complete analysis of traffic in 1927 from the steam yacht *Franklin*.

The Japanese may have used as many as 700 different codes.[860] The IJN alone used at least 24 major codes, which does not include callsign and address codes, date/time codes used internally in messages, and other internal codes to conceal map references and other sensitive information. Overwhelmingly, Japanese messages were protected by codes and not by ciphers.[861] This marks an important difference from the German use of the machine cypher Enigma.

Throughout the 1930s the IJN continued to introduce new and improved codes, which were promptly broken by the British. The new five-figure code, Naval Code D, was introduced in early 1939. Designated 'JN-25' by the Americans, Code D was being broken by the FECB Sigint unit led by Nave in Singapore by December that year.[862] The USN Corregidor RI Unit was also making some progress, but the Americans were surprised at the extent of British penetration of the code when direct contact between CAST and FECB was approved in March 1941. With both organisations sharing information, the second 'B' edition new code was partially (10 per cent) readable by December 1941.[863] The real breakthrough came in March 1942, when it was realised that the 4 December change of cipher to the B-8 version was only a minor variation on B-7. This vastly speeded recovery of JN-25, and by May 1942 USN cryptanalysts were delivering transcripts of intercepts as soon as six hours after transmission by

the Japanese.[864] Just prior to the Battle of Midway, recoveries were running at about 50 per cent. The code was changed by the IJN again on 1 June, and yet again in August 1942.[865]

In Australia, the arrival of Nave on sick leave created the necessary preconditions for an operational RAN signals intelligence organisation. When teamed with the academics engaged by the Australian Army in May 1941, this became Australia's first national Sigint activity and made important advances in researching and breaking several secondary Japanese codes. Although apparently denied a role in attacking Code D by FECB, Nave's organisation penetrated Japanese diplomatic and merchant ship codes and worked on the IJN's submarine code, JN-4. Because of this, Nave was able to break and translate the Japanese 'winds warning' message of November 1941, which alerted the Allies to the imminence of war.[866]

The arrival of the remnants of CAST in Melbourne in March 1942 signalled the beginning of the end for Nave's organisation. The two Sigint units were collocated, but relationships between Nave and the USN commanding officer rapidly deteriorated. Despite clear evidence that Nave's personnel were actively assisting in the attack on JN-25, the Americans suppressed their contributions, and Nave was eventually forced out by the UK-US Holden Agreement of October 1942. The effect of this was to leave the decryption of Japanese codes essentially in US hands, and with British influence in FRUMEL surrendered.[867] Those Australians who continued to work at FRUMEL made valuable contributions to all of its activities throughout the war.

The main area of cryptanalytical concentration for CB was the IJA main code which proved remarkably resistant to attack. In the meantime, there were other minor codes to be investigated, but there was also a grave shortage of cryptanalysts. Because of the division of responsibilities for the defence of the outer perimeter of the empire between the Japanese Army and Navy, it was frequently Army codes that provided intelligence of value to Allied naval forces. This included the formation, dispatch, route, composition and cargo of Army water transport convoys. Similarly, Army air codes provided analysts with details of the identity and composition of IJA air units, their serviceability state and the conditions of the airfields from which they operated. Nave led CB's first code break into the IJN air-ground code, and developed the system which supported CB field units and through them, the operational commanders they were supporting.[868]

## Allied Intelligence Organisation SWPA 1942–45

Upon General MacArthur's assuming command of SWPA, the changes to the intelligence organisation supporting Australian forces were huge and far-reaching. MacArthur and his staff sought to overlay the Australian agencies with American

practices and personnel, bringing to the new organisation many of the strains that marked the struggle between the US Army and the USN for primacy over intelligence. However, the majority of the changes were both positive and necessary, as the United States brought to the war in the South West Pacific its greater personnel and technical resources, particularly those required to exploit Sigint.

Some of the pre-MacArthur agencies were swallowed up or transformed, others worked in collaboration with GHQ SWPA. The development of new skills and the emergence of new requirements bred new agencies, but others continued virtually unchanged, regardless of MacArthur. For many, the British influence on their operations remained strong, while for others, such as the NID, residual responsibilities to the Imperial organisation remained. The result was an interesting, and sometimes confusing, patchwork of intelligence agencies, all competing for money, manpower and materiel. A diagram of the organisation prepared by the author is at Figure 12.

## Naval Intelligence

The USN intelligence staff attached to the CANF/C7F headquarters was responsible for supporting not only their commander but also forces under his command. It was set up in 1942 as the USN Intelligence Section, but in 1943 Commander (later Captain) McCollum, USN, reshaped it as 7th Fleet Intelligence Center, and as a replica of the Joint Intelligence Center in Pearl Harbor. This was separate from GHQ SWPA, and took its intelligence from naval sources as well as from GHQ COIC, Allied Air Forces and from Central Bureau.[869] All task force and task group commanders received the bulk of their intelligence from the centre, except for that provided from local sources. CSWPSF was responsible for distributing intelligence to NOICs, who had the responsibility of providing intelligence support to ships under their command.

FRUMEL passed product directly to the two US submarine commanders in Australia and also provided the nucleus of a number of mobile radio intelligence units that were posted to 7th Fleet ships.

## Central Bureau

Shortly after his assumption of command, General MacArthur's authorised the establishment of a new Sigint organisation that would be directly subordinated to GHQ SWPA. The outcome was the Central Bureau, formed round a nucleus of experienced US and Australian officers and using, initially, the services of the Australian Army and RAAF special wireless units.[870] Its tasks were coordination and operational control of the theatre's Sigint activities (but not those of FRUMEL or the RAN), cryptanalysis, traffic analysis and DF. As a true Allied operation, CB was not
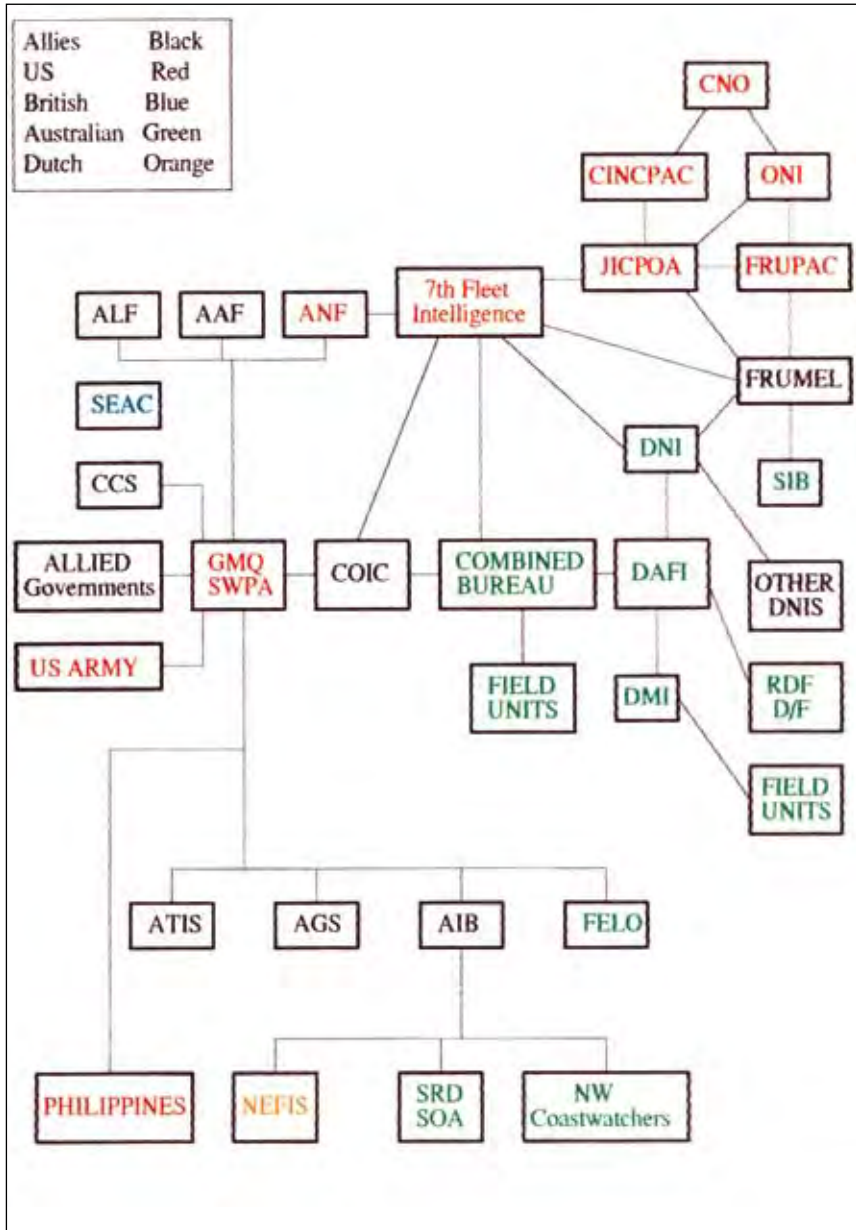
Figure 12 - Organisation of Allied Intelligence SWPA, 1942 - 44

in the chain of command of the US Army's Signals Security Agency, and MacArthur consistently maintained its independence.[871]

CB itself formed part of a web of mainly British Y stations. However, this existed more to relay intercepted material to GC&CS than to exchange information.[872] There was some tension between the Americans and the Australians over the maintenance of these British Commonwealth links, but the Australians held their ground. The predominantly Army- and Air Force-oriented CB was able to supply important operational decrypts to Allied naval forces from its work on the Japanese air-ground and associated minor codes.[873]

## New Intelligence Organisations

In mid-1942, GHQ SWPA instituted sweeping changes in the organisation of intelligence in the command. Apart from CB, it established the Allied Intelligence Bureau (AIB), with an Australian colonel as the controller, to be the umbrella organisation for four different elements:

- Section A – Special Operations Australia, cover name ISD, conducting raids and seeking out intelligence to meet special requirements, with a British director

- Section B – Secret Intelligence Australia, really a branch of the British SIS, obtaining intelligence through secret channels, with a British or Australian director

- Section C – basically the RAN Coastwatcher Service augmented with other observers, and headed by Lieutenant Commander (later Commander) Feldt, RAN, and

- Section D – Far East Liaison Office, responsible for propaganda operations. The director throughout the war was an RANVR officer.

Late in 1942 Section D was detached from AIB and operated under the direction of the Commander Allied Land Forces, with the cooperation of the other two Australian services. In early 1943, Section C was split to form the Philippines Regional Section – charged with guerrilla liaison – and the NEI Regional Section (NEFIS) to work in parallel with the RAN Coastwatchers, but in their own regional areas of responsibility. The clandestine agencies were tasked and deployed to collect intelligence on targets for amphibious assault, while the Coastwatchers maintained their role of observing and reporting from enemy-occupied areas of the SWPA.[874] Later in the war, AIB intercept stations were established close to operational areas to record reports from agents and pass the intelligence on directly to local commanders.[875]

In addition, in July 1942 GHQ established the Allied Geographic Section (AGS), responsible for collecting and collating geographic, topographic and hydrographic

intelligence to meet Allied needs. AGS had an AIF director throughout the war, by the end of which the organisation had produced 110 terrain studies, 62 terrain handbooks and 101 special reports. More than 200,000 copies of these reports were distributed to all forces in the SWPA.[876] AGS provided information also to Southeast Asia Command. Sources tapped included missionaries, planters, specialists in tropical medicine, and botanical authorities.[877] In September 1942, the Allied Translator and Interpreter Section was established with a US Army director to translate captured enemy documents and to interrogate prisoners of war.[878]

## The Australian Contribution

Hinsley's remark, that the history of WWII intelligence in the Pacific was a matter for the Americans to record, has perpetuated the belief that US resources provided the intelligence used by the Allies in their campaigns. While this was largely true of the Central and North Pacific, it was not the case in the SWPA. The purpose of this section is not to blow any particular Australian trumpets, but to show how SWPA's experience formed the basis of post-war intelligence developments in Australia.[879]

At a navy level, the Assistant Director of FRUMEL was the RAN Director of Signal Communications, Commander Jack Newman, RAN, (who retained this position throughout the war) until the USN largely withdrew from FRUMEL in December 1944. At that point he became the Director. It was largely from intercepts made at RAN, RAAF and Army stations that FRUMEL initially gained its raw material to fuel its codebreaking activities and, throughout the war, the RAN element of FRUMEL maintained communication and professional links with GC&CS and other British Sigint agencies.

The staffing of the COIC, first in Melbourne, then Brisbane, Hollandia and the Philippines was very largely an Australian affair. The directorship remained as an Australian position in Brisbane, and Lieutenant Commander Luke, RAN, was appointed director of the Advanced Echelon COIC in Hollandia in March 1944. In October that year he became COIC Director when the Brisbane echelon closed.

The manpower of CB, although its nationality balance changed over the years, was initially divided evenly between Australians and Americans and, despite the dilution of their numbers, Australians occupied key positions in the organisation throughout the war wherever CB was located.[880] It was chiefly upon the experience and expertise of the Australian Army's wireless sections, with their background in operations against the Germans in the Middle East and the skills of personalities, such as Nave, that CB depended for most of its first year of operations.[881]

In 1942, when there were sufficient trained *kana* operators, both the Australian Army and RAAF established new field units ('wireless sections' in the Army and 'wireless

units' in RAAF terminology) that were deployed forward, first in Australia and later with the advancing Allied forces. The Army's 51 Wireless Section was established in Darwin in June 1942. The following month 55 Wireless Section was deployed to Port Moresby,[882] and 53 Wireless Section was attached to the US 5th Air Force HQ and moved with that force northwest through New Guinea.[883] The RAAF 1 Wireless Unit was established in Townsville in April 1942.[884] In 1943 it was decided to expand CB's operation, and another 15 Australian field formations were raised.[885] The new RAAF units went to the Philippines with the US Army, while others supported the Allied landings in Borneo.[886] In considering the significance of this achievement, it should be borne in mind that at the outbreak of war the RAAF had practically no intelligence organisation at all.

AIB continued its work throughout the war, although coastwatching gradually ceased as the occupied territories returned to Allied hands.[887] In the other sections, manpower increased throughout the war, with most of the personnel being provided by Australia. Australians retained director positions in three of the five sections, Philippines (US) and NEFIS (Holland) being the exceptions. The Services Reconnaissance Department (SRD) in particular grew to over 700 personnel. The demand for shipping for SRD operations was so great that the RAN established and staffed the Lugger Maintenance Section, which provided most of the non-military craft used on special operations, and even commissioned a special class of boats for this purpose.[888] Of 3046 personnel in AIB in March 1945, only 19 were American.[889]

At the regular military level, the RAAF had photo-reconnaissance responsibility for a very large region of the SWPA, as well as photo-interpretation and photographic map-production responsibilities. These were exercised respectively by units attached to operational commanders and through the Central Interpretation Unit in Brisbane, as well as some detachments forward-deployed to operational areas. This unit provided product to all Allied forces, including USN carrier groups and the British Pacific Fleet, and its resources included USAAF groups.[890]

The contribution of TF 70.5, commanded by the RAN Hydrographer, has been covered in Chapter 3. The Admiralty Reporting Officer system under DNI continued to function throughout the war, reporting shipping intelligence. The Army intelligence corps also underwent a significant expansion in numbers and capabilities, capable of providing the kind of sophisticated service evidenced in the interactions of 6th Division with Wewak Force examined in Chapter 3.

## Conclusion

There were always frictions within the SWPA intelligence world, but it appears to have worked extremely successfully in its principal purpose of supporting the planning and conduct of military operations against the Japanese. Looking back, a researcher can only marvel that, given the obvious potential for confusion involved in coordinating such a multiplicity of agencies, ambitions, personalities, priorities, nationalities and demands, such a coherent organisation was able to be cobbled together in such a short time. Moreover, it was created out of a ragbag of resources in a command not enjoying the fullest of support from the CCS, and in a country like Australia, where the intelligence services were unable to draw on the kinds of expertise available in the United States or Britain in government, military and academic circles.

In the three years 1942 to 1945, the Australian military intelligence organisation developed many of the skills and characteristics required of a modern intelligence system, and the capabilities to support not only Australian single and joint service operations, but to make a solid contribution to Allied combined operations as well. It was fortunate that General MacArthur was unable to extract from US resources the manpower and material required for his intelligence organisation, since this ensured that Australian personnel, agencies and units played a disproportionately large role in this field in comparison with the fighting arms. In the words of David Horner, 'This was a substantial achievement which was to have important repercussions for the future.'[891]

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## Interviews

Rear Admiral WJ Dovers, CBE, DSC, RAN, (Rtd), interviewed by author 16 November 2001.

Gavan Frye, Deputy Director Australian National Maritime Museum, interviewed by John Tingle 25 August 1989.

Commander RA Howland, RAN, (Rtd), interviewed by author 25 July 2002.

Captain RD Lamb, RAN, (Rtd), interviewed by author 27 May 2002.

Lieutenant Commander FW Lane, RAN, (Rtd), interviewed by author, 14 April 2003.

Vice Admiral DW Leach, AC, CBE, RAN, (Rtd), interviewed by author 29 October 2001.

Commander EW Linton, BEM, RAN, (Rtd), interviewed by author 10 August 2002.

Lieutenant Commander RM Nicholls, RAN, (Rtd), interviewed by author 11 February 2003.

Rear Admiral PT Purcell, AO, RAN, (Rtd), interviewed by author 17 September 2002.

Commander RG Ray, MBE, RAN, (Rtd), interviewed by author 21 October 2003.

Commodore JA Robertson, RAN, (Rtd), interviewed by author, 6 August 2002.

Commodore KW Shands, OBE, RAN, (Rtd), interviewed by author 5 October 2001.

Commander MTE Shotter, MBE, RAN, (Rtd), interviewed by S C Pfennigwerth 3 March 2003.

Commander AK Wait, RAN, (Rtd), interviewed by author 29 August 2002.

## Presentations

Cooper, Alastair, 'Raiders and the Defence of Trade: the Royal Australian Navy in 1941', paper presented at AWM Conference *Remembering 1941*, June 2001.

Cooper, Alastair, 'RAN and Allied Command', paper presented at the Australian War Memorial Conference *Remembering 1942*, 1 June 2002.

# Notes

## Introduction

1   Karl von Clausewitz, *On War,* The Modern Library, New York, 1943, p. 51.

2   'Intelligence is vital to maritime operations to give the level of information about the adversary and the operating environment required to ensure the success of the mission and the security of the operation'. [Royal Australian Navy, *Australian Maritime Doctrine*, Defence Publishing Service, Canberra, 2000, p. 90.]

3   John Prados, *Combined Fleet Decoded: The Secret History of American Intelligence and the Japanese Navy in World War II,* Random House, New York, 1995, pp. 35–37.

4   RAN plans to introduce carriers in 1944 were defeated by government restrictions on raising the necessary manpower. George Odgers, *The Royal Australian Navy: An Illustrated History*, Child & Kent, Sydney, 1982, p. 146.

5   Donald McLachlan, *Room 39: Naval Intelligence in Action 1939–1945*, Weidenfeld & Nicholson, London, 1968, pp. 20–21.

6   The diagram is based on Figure 29 in the study by E Cesar, P Allen, & R Eden, *Finding a New Approach to Measure the Operational Value of Intelligence for Military Preparations: Annotated Briefing,* Rand Corporation, Santa Monica, CA, 1992, p. 34.

7   Dudley Pope, *The Battle of the River Plate*, William Kimber, London, 1956, pp. 141–142.

8   Prados, *Combined Fleet Decoded*, pp. 324–327.

9   Corelli Barnett, *Engage the Enemy More Closely: The Royal Navy in the Second World War*, Hodder & Stoughton, London, 1991, pp. 268–270.

10  Clay Blair, *Silent Victory: The US Submarine War Against Japan*, Lippincott, Philadelphia, 1975, pp.486–487.

11  Determination of the enemy's chosen course of action relied on high frequency direction finding, as *Bismarck* believed she was being shadowed and thus had no need for radio silence. [Barnett, *Engage the Enemy*, p. 295.]

12  The IJN maintained as its central warfighting strategy the 'decisive battle' where the USN would be annihilated. This doctrine was well known to all, including the Americans, who were able to ensure that the necessary pre-conditions for decisive battle on Japanese terms never eventuated. [Prados, *Combined Fleet Decoded,* pp. 734–45.] This knowledge, according to Rear Admiral Layton, who became the intelligence officer to CINCPAC, was first obtained through radio intelligence of IJN manouevres in May 1929. [Edwin T Layton, '*And I Was There': Pearl Harbour and Midway – Breaking the Secrets*, William Morrow, New York, 1985, pp. 54–55.]

13  Anthony Cave Brown, *Bodyguard of Lies,* WH Allen, London, 1957, pp. 625–633.

14  Examples of this propensity are, unfortunately, multitude. Early in WWII, interrogation of U-boat POWs indicated that their vessels were capable of safely submerging to 180 metres, a depth that was greater than the settings on the fuses of British depth charges. The Admiralty's technical directorates dismissed this as propaganda, as 180 metres was much deeper than the safe diving depth of British submarines. It was only after trials of a captured U-boat

with a British crew confirmed the claims made by POWs that British depth-charge fusing was changed. [McLachlan, *Room 39*, p. 170.]

15   Roberta Wohlstetter, *Pearl Harbor: Warning and Decision*, Stanford University Press, Stanford, Ca, 1962, pp. 3–4.

16   Alastair Cooper, 'RAN and Allied Command', paper presented at the Australian War Memorial Conference *Remembering 1942*, 1 June 2002.

17   The defining instance was Admiral Fletcher's rejection of the information provided by the Radio Intelligence Unit embarked in USS *Yorktown* at the Battle of the Coral Sea, which, had he accepted it, would have enabled him to destroy the Japanese carriers on the evening of 7 May 1942. [Layton, '*And I Was There*', pp. 394–396.]

18   McLachlan, *Room 39*, p. xiv.

19   Barbara Winter, *The Intrigue Master: Commander Long and Naval Intelligence in Australia 1913–1945*, Boolarong Press, Brisbane, 1995, p. v.

## Setting the Scene

20   Robert Hyslop, *Australian Naval Administration 1900–1939*, Hawthorn Press, Melbourne, 1973, p. 24.

21   Peter Overlack, 'A vigorous offensive: core aspects of Australian maritime defence concerns before 1914', in David Stevens & John Reeve (eds), *Southern Trident: Strategy, History and the Rise of Australian Naval Power*, Allen & Unwin, Sydney, 2001, pp. 154–157.

22   Grazebrook, AW, 'Vice-Admiral Sir John Augustine Collins, KBE, CB, RAN', in David Stevens (ed), *The Royal Australian Navy in World War II*, Allen & Unwin, Sydney, 1996, p. 144.

23   Australian Prime Minister Lyons stated on 24 August 1937 that: 'The safety of Empire interests in the Eastern Hemisphere depends upon the presence at Singapore of a fleet adequate to give security to our sea communications'. [NAA MP1587/1, Item 218AO–Pamphlets: The defence of Australia–What the Lyons Government has done.]

24   Barnett, *Engage the Enemy*, pp. 29–35.

25   NAA A5954, Item box 582 – War Cabinet minutes, ACNB minute of 26 September 1939. Prime Minister Menzies approved this in his letter of 6 November 1939. [NAA A1608, Item H33/1/1–Cooperation with Dominions – form of.]

26   Hyslop, *Australian Naval Administration*, pp. 235–237. The appendix titled 'Empire Naval Cooperation' graphically illustrates the degree of dependence the RAN had on the Admiralty for training, equipment, designs, information and even for personnel.

27   FH Hinsley, with EE Thomas, CFG Ransom, & RC Knight, *British intelligence in the Second World War: its influence on strategy and operations, vol. I, London*: Her Majesty's Stationery Office, 1979, pp. 11–13 and 23–25, and McLachlan, *Room 39*, pp. 45–49.

28   AWM 252, Item A228 – Codes and messages: unravelling of a German code by Frederick William Wheatley, contains the details of this exploit.

29   NAA MP1049/1, Item 1918/0325 – Naval Intelligence Service: report to Prime Minister 19 June 1918.

30   By January 1921 Admiralty Reporting Officers had been appointed in principal ports in Australia and its territories, except Rabaul and Nauru, and these were in the process of being resolved. The Governor-General's Naval Secretary told the Administrator in Rabaul in a letter dated January 1921 that, 'Another subject of very great interest to this office is the

activities of the Japanese and other aliens south of the Equator'. [NAA B3476, Item 99–RAN Intelligence Service: review of instructions.]

31  NAA B3476, Item 98 – Inspection of Intelligence Centres by DNI, Navy Office letter of 7 April 1932.

32  Griffiths visited Naval Intelligence Centres in Adelaide, Melbourne, Brisbane and Sydney in June and July 1923, and was pleased to observe the 'good results' from an intelligence course conducted in Navy Office in 1922. [NAA B3476, Item 98–Inspection of Intelligence Centres by DNI, June-July 1923.]

33  It was six years after Griffiths' inspection that one of his successors found the opportunity and the finance to undertake a similar visit program. Commander Farquhar-Smith RAN stated: 'The difficulty has been to find time to undertake such visits, owing to the combination of the duties of ACNS and DNI'. [NAA B3476, Item 98 – Inspection of Intelligence Centres by DNI, DNI minute of 13 April 1929.]

34  David Stevens, 'Defend the North': Commander Thring, Captain Hughes-Onslow, and the beginnings of Australian naval strategic thought', in David Stevens & John Reeve (eds), Southern trident: strategy, history and the rise of Australian naval power, Allen & Unwin, Sydney, 2001, pp. 234–235, and AWM 69, Item 54 – Royal Australian Navy Coastwatching Organisation.

35  NAA MP1587/1, Item 185 A1 – Australian Naval Policy Appendix VIII.

36  Ian Pfennigwerth, *A Man of Intelligence: The Life of Captain Eric Nave, Australian Codebreaker Extraordinary*, Rosenberg Publishing, Kenthurst, NSW, 2006, pp. 51-57.

37  NAA MP 1185/8, Item 1997/5/259 – Instructions for Procedure Y, Australia Station: ACB087/ ACB 00205.

38  MP1185/8, Item 1997/5/305–W/T Procedure Y: Australia Station, Navy Office letter SC 1997/5/196 of 26 May 1936. In fact they were erected at Darwin, Jandakot (near Perth), and Canberra.

39  The Australian Army disbanded its separate intelligence service in 1919 and the Royal Australian Air Force did not establish an intelligence directorate until August 1939. [Wayne Gobert, 'The evolution of service strategic intelligence 1901–1941', *Australian Defence Force Journal* 92, 1992, pp. 59–60.]

40  Commander Long's family was well-connected in Victorian society and his second marriage was to the daughter of the Pacific shipping magnate WR Carpenter. This was not just a valuable social connection: it gave DNI access to the extensive reporting network of the Carpenter Group throughout the South Pacific. [Winter, *The intrigue master*, pp. 23–24.]

41  NAA MP1049/5, Item 2021/8/198 – Reports on naval intelligence organisation, report on working of naval intelligence organisation, Australia, 1938. The Coastwatcher service was given the codename 'Ferdinand', after the little bull that would rather smell the flowers than fight. The significance of the symbolism was that Coastwatchers were emplaced to observe not to attack, and most (though not all) respected the differentiation. [Eric Feldt, *The Coast Watchers*, Penguin Books, Sydney, 1991, p. 71.]

42  Winter, *The Intrigue Master*, pp. 45-47 & 85-86.

43  NAA MP1049/5, Item 2021/8/198 – Reports on NIO 1925–1939: Report on working of NIO Australia 1938, dated 13 January 1939.

44 NAA A2585/1, Item 1939/1941 – Naval Board Minutes, minutes of meeting 22 January 1939. Director of Signal Communications Commander Jack Newman represented the RAN at a conference on the organisation of wireless intelligence in the Far East held in Singapore in March 1939.

45 NAA A816, Item 43/302/18 – Establishment of cryptographic organisation in Australia, CNS minute of 28 November 1939.

46 NAA MP1185/2, Item 1937/3/415, folio 2 and NAA A816/1, Item 43/302/18–Establishment of cryptographic organisation in Australia, PM letter no. 86 of 1 April 1940.

47 NAA MP 1185/8, Item 1997/5/343 – Strategic DF, contains recommendations that the erection and commissioning of stations in Australia be hastened. [COIC Far East letter 1075/040E/7 of 17 May 1940.]

48 Alastair Cooper, 'Raiders and the Defence of Trade: The Royal Australian Navy in 1941', paper presented at AWM Conference *Remembering 1941*, June 2001.

49 George Odgers, *The Royal Australian Navy: An Illustrated History*, Child & Kent, Sydney, 1982, p. 77.

50 NAA MP1185/8, Item 1933/2/115 – War Orders for HMA Squadron – RACAS comments.

51 Frances McGuire, *The Royal Australian Navy: Its origin, Development and Organisation*, Oxford University Press, Melbourne, 1948, pp. 80–82.

52 Commonwealth of Australia, *The Navy List*, October 1939, pp. 78-79.

53 James Goldrick, 'Australian naval policy 1939–45', in David Stevens (ed), *The Royal Australian Navy in World War II,* Allen & Unwin, Sydney,1995, p. 7.

## Operations against Italy, Vichy France & Germany, 1939-1942

54 Hermon G Gill, *Royal Australian Navy 1939–1942*, Australian War Memorial, Canberra, 1985, pp. 418–419.

55 NAA MP 729/6, Item 15/401/342 – Central War Room and Joint Planning, DC Agenda 67/1940 of 30 July 1940.

56 NAA MP 729/6, Item 15/401/342 – Central War Room and Joint Planning, DC agenda 67/1940 of 30 July 1940.

57 NAA MP 729/6, Item 15/401/342 – Central War Room and Joint Planning, DC Agenda 67/1940 of 30 July 1940.

58 NAA A816/1, Item 43/302/18 – Establishment of cryptographic organisation in Australia. The Defence Committee formally approved the 'Special Intelligence Organisation' on 29 November 1941.

59 Pfennigwerth, *A Man of Intelligence,* pp. 172-176.

60 There are surprisingly few records of this action in Australian archives, hence the author's reliance on Gill. The material used in the official account of the action appears to have been destroyed, but would have been available to Lieutenant Commander Gill in NID and in his later role as official historian.

61 *Romolo* had also been under covert surveillance by the cruiser HMAS *Perth*.

62 Gill, *RAN, 1939–1942*, p. 121.

63 Burrell, *Mermaids Do Exist*, p. 81.

64    The chart of the reconstruction included at Figure 2.2 is from NAA B6121/3, Item 211E – *Romolo* sinking of by HMAS *Manoora*.

65    This calculation is based on chart 120 in Gill, *RAN, 1939–1942*.

66    Burrell recorded that, 'Spurgeon did extraordinarily well under the circumstances, no thanks to our calling the dog from the rabbit'. [Burrell, *Mermaids Do Exist,* p. 81.]

67    Most of the Navy's warships were in the Mediterranean or the Indian Ocean engaged in higher priority tasks of escorting troop transports. [Gill, *RAN, 1939–1942,* pp. 117-118.]

68    There was even discussion by the British chiefs of staff of abandoning the Mediterranean, but Churchill vetoed the idea. [Barnett, *Engage the Enemy,* pp. 209–213.]

69    The intelligence coup that allowed the British to inspect an Italian cruiser is described by Joseph Maiolo, 'I believe the Hun is cheating': British Admiralty Technical Intelligence and the German Navy, 1936–39', *Intelligence and National Security* 11, 1996, pp. 32–58.

70    Traffic analysis is the derivation from intelligence from an intercepted message before it is subjected to cryptanalysis. Information could be extracted from the time and direction of the signal's arrival, the frequency used, callsigns associated with it, its form, length or coding system applied, and the identification of the originating operator or transmitter.

71    At the outbreak of war the Mediterranean Fleet had been powerful, highly trained and well balanced. Its ships began to be withdrawn to other areas almost immediately and the replacements were often old and incapable of participating in modern fleet actions. [Andre Cunningham, *A Sailor's Odyssey*, Hutchinson, London, 1952, pp. 218 & 234.]

72    John Collins, *As Luck Would Have It: The Reminiscences of an Australian Sailor,* Angus & Robertson, Sydney, 1965, p.84.

73    Collins, *As Luck Would Have It,* pp. 82–83.

74    NAA MP1185/8, Item 2026/3/351 – Action off Cape Spada 19/07/40–*Bartolomeo Colleoni*, HMAS *Sydney* letter 8234/40 of 30 July 1940.

75    Collins was not the only one counting on Italian routine operations. In his account of the battle, the Italian commander, Vice Admiral Casardi, stated that: 'I had not catapulted any of our aircraft because I was certain that *Egomil* (Italian HQ at Rhodes) would by that time have assured reconnaissance over the sea areas which the Division had to cross'. [NAA B6121/3, Item 56D – HMAS *Sydney* in *Bartolomeo Colleoni* action, Casardi reference N.279/SRP of 23 July 1940.] Casardi was, however, also concerned about the possibility of British submarines in the area, which should surely have prompted an ASW sweep by his floatplanes along the cruisers' intended track.

76    Jack Greene, & Alessandro Massignani, *The Naval War in the Mediterranean 1940–1943,* Chatham Publishing, London, 1998, p.82.

77    On the force's return to Alexandria, Cunningham asked Collins how he had got into a firing position so soon. Collins replied: 'Providence guided me, Sir'. Cunningham responded with: 'Well, in future you can continue to take your orders from Providence'. [Collins, *As Luck Would Have It,* p. 88.]

78    Collins, *As Luck Would Have It,* p. 85.

79    UKNA ADM1/1117 8– HMAS *Sydney* Sinking of *Bartolomeo Colleoni,* letter Med.0901/0710/30/2 of 21 Sep 1940.

80  On 18 June 1940 the War Cabinet addressed a 'Strategical appreciation in relation to local defence – the effects of the possible occupation of the New Hebrides and New Caledonia by Japan'. [NAA A5954/69, Item 804/1–Minutes of War Cabinet Meetings, Vol. III, WCM 345.]

81  The anxiety in June 1940 was caused by newspaper speculation that New Caledonia and New Hebrides would be ceded to Japan. [Margaret Simington, 'Australia and the New Caledonia Coup d'Etat 1940', *Australian Outlook* 30, 1976, pp. 73–92.]

82  NAA MP1049/5, Item 2021/8/245 – New Caledonia and Dependencies: Intelligence Reports.

83  NAA MP1049, Item 1829/2/170–Appointment of ARO in Noumea.

84  The Vichy Minister for Colonies warned Pelicier on 24 July that 'slackness' regarding the implementation of his government's decisions on Franco-British relations would be 'punished most severely'. [John Lawrey, *The Cross of Lorraine in the South Pacific: Australia and the Free French Movement 1940–42*, Australian National University, Canberra, 1982, p. 28.]

85  NAA A981, Item NEW C1 PART 5–New Caledonia General Part V, Bruce cable to Menzies no. 472 of 25 June 1940.

86  NLA, ADM 116/4263 – Situation in French Islands in South West Pacific after collapse of France, Australian Joint Copying Project, reel 5933.

87  NAA A5954/69, Item 804/1 – Minutes of War Cabinet Meetings Vol. III, WCM 493 of 10 September 1940.

88  To bring about this arrangement was the task the Australian Government set Ballard in late August. [NAA A981, Item NEW C1 PART 5 – New Caledonia General Part V.]

89  NAA A2676/1, Item 574/A/1 – Letter of Proceedings – HMAS *Adelaide* September 1940.

90  The order to *Amiral Charner* to relieve *Dumont d'Urville* was intercepted on 11 September. This suggests that Vichy felt confident about its hold on the situation in New Caledonia at the time. [AWM 68, Item 3DRL 8052 258B – War Records of Sir Paul Hasluck: 'New Caledonia in 1940–1941'.]

91  NAA A 2676/1, Item 574/A/1 – Letter of Proceedings–HMAS *Adelaide*, September 1940.

92  NAA MP1049/5, Item 1877/11/115 – HMAS *Adelaide* in New Caledonia, ARO Noumea to ACNB on 14 September.

93  NAA A2676/1, Item 574/A/1 – Letter of Proceedings – HMAS *Adelaide*, September 1940, and Wilfred Burchett, *Pacific Treasure Island: New Caledonia*, FW Cheshire, Melbourne, 1941, pp. 193–195.

94  NAA MP1049/5, Item 1877/11/115 – HMAS *Adelaide* in New Caledonia.

95  Nevertheless, the Naval Staff arranged for air reconnaissance of both *Amiral Charner* and of *Dumont d'Urville* on her departure from New Caledonian waters. Sigint is clearly evident in the precision of the coordinates given for the searching aircraft to cover. [NAA MP1049/5, Item 1877/11/115 – HMAS *Adelaide* in New Caledonia, Central War Room message DTG 291330K September 1940.]

96  NAA A6445/1, Item 10/1940 – Repatriation of Vichy official adherents and deportees from New Caledonia and New Hebrides.

97  Essentially, the de Gaulle Committee was keen to avenge ancient slights by branding all their opponents as Vichyites and to pack them all off to Australia. This would have been contrary to assurances given by Showers to Quivrecourt, which were at the heart of his decision to sail *Dumont d'Urville*.

98   There appears to have been none from General de Gaulle, and a 2005 survey by the author of memorials in Noumea to the *ralliement* of September 1940 revealed no reference to Australia, Showers or HMAS *Adelaide*.

99   Friedrich Rugge, *Sea Warfare 1939–1945: A German Viewpoint*, Cassell, London,195, pp. 24–28.

100  UKNA ADM 1/18899 – Operational Order for Ship 41. The German Naval War Staff Operation Order for Ship 41 (*Kormoran*) noted that 'A long-term restriction and harassing of the enemy is more important to the success of the operation than a high record of sinkings accompanied by a rapid deterioration of the auxiliary cruiser'.

101  Wesley Olson, *Bitter Victory: The Death of HMAS* Sydney, University of Western Australia Press, Nedlands, WA, 2000, pp. 136–137.

102  August Muggenthaler, *German Raiders of World War II*, Prentice-Hall, Englewood Cliffs, NJ, 1977, p. 13.

103  Captures provided the HSKs with much useful information, including secret routing information and merchant ship codes and even naval ciphers. [David Woodward, *The Secret Raiders: The Story of the Operations of the German Armed Merchant Raiders in the Second World War*, William Kimber, London, 1955, pp. 53, 59 & 145.]

104  The Admiralty issued a Raider supplement to the Weekly Intelligence Report, which went to all warships. On the Australia Station, this was supplemented in the COIC Weekly Summary.

105  Olson, *Bitter Victory*, p. 130.

106  UKNA ADM 182/127 – CAFOs 1940 and UKNA ADM 182/130–CAFOs 1941.

107  Gill, *Royal Australian Navy, 1939–1942*, p. 270. HMAS *Perth* was off the west coast and HMAS *Adelaide* was refitting in Sydney. There were no other naval units that could risk action with an HSK.

108  The mines' success rate was low–four ships sunk and one damaged. [AWM 69, Item 23/87 – German Minelaying in Australian Waters 1939–45.]

109  COIC had a considerable input into the Admiralty reports on raider activity. On 17 January 1941, COIC produced a map of raider movements and a summary of their activities, which went with Prime Minister Menzies to London. On 12 February it completed a report on possible bases used by the HSKs for rest and refit. [NAA MP1587, Item 165C – Raiders: Possible Bases Intelligence Summary.]

110  NAA MP1185/8, Item 2021/8/313 – HMA Squadron Intelligence Summary.

111  NAA MP1580/7, Items 25–Weekly Intelligence Report no. 25, Item 218 – Weekly Intelligence Report no. 218, and MP1580/1, Item 69 – Weekly Intelligence Reports.

112  NAA MP1049/5, Item 1866/6/363 – Illustrations of Enemy Merchant Ships and Possible Raiders.

113  UKNA ADM 234/324 – Actions with Enemy Disguised Raiders 1940–1941 – Battle Summary 13, Admiralty message DTG 1618A/16 December (1941) reproduced as Appendix D.

114  NAA B6121/3, Item 1660–*Ramses* blockade runner–destruction by HMAS *Adelaide*, HMAS *Adelaide* letter S68/2/42 of 2 December 1942. The dilemma confronting *Adelaide* and the deductive process used by the command team to discount *Ramses'* attempts to obfuscate the issue are spelled out in the report.

## Facing the Japanese Onslaught, 1941—42

115 DK Dignam, 'Australia and British Relations with Japan 1914–1921', *Australian Outlook* 67, 1968, pp. 142–150.

116 Chihiro Hosoya, 'Britain and the United States in Japan's View of the International System, 1919–1937', in Ian Nish (ed), *Anglo-Japanese Alienation 1919–1952: Papers of the Anglo-Japanese Conference on the History of the Second World War,* Cambridge University Press, London, 1982, pp. 5–6.

117 Guy S Verney, 'Oriental Studies, University of Sydney', *United Service* 34, 1981, p. 1.

118 Ian Hamill, *The Strategic Illusion: The Singapore Strategy and the Defence of Australia and New Zealand 1919–1942*, Singapore University Press, Singapore, 1981, pp. 112–114.

119 NAA MP1185/8, Item 1945/2/6 – Appreciation of Far East situation 30/09/40.

120 NAA A290/14, Item Defence 275 part 3 – Defence: Committee of Imperial Defence Papers, Correspondence on Supply etc, DEA letter LON.1906 of 27 November 1930.

121 Dan Van der Vat, *The Pacific Campaign: World War II: the US–Japanese Naval War, 1941–1945*, Hodder & Stoughton, London, 1992, p.53.

122 NAA A981/1, Item Far East 5 part 17 – The Latham Report.

123 NAA A2937/1, Item 83 – Imperial Defence.

124 UKNA ADM 1/11326 – Some Strategical Notes – Western Pacific. In the three letters written to the Admiralty in this record he continually urged stronger naval action in the Far East to forestall the Japanese.

125 NAA A981, Item Defence 331 part 2 – Defence Singapore Part 2.

126 However, in the telegraphic discussion that preceded these decisions, the intentions of the Japanese and the possibilities of hostilities loomed large. [RG Neale, PG Edwards, H Keneway & HLJ Stokes, (eds), *Documents in Australian Foreign Policy 1937–1949, Vol. II: 1939*, Australian Government Publishing Service, Canberra, 1976, documents 214, 218, 219, 222.]

127 NAA A981/1, Item Far East 5, part 17 – ASIS 6/1932 Part 2: Japanese espionage activities penetrations, etc. Interestingly, later enquiries indicated that Japanese vessels operating in Australian waters used only authorised Japanese reprints of Admiralty charts. [NAA MP1049/5, Item 1877/13/275 – Japanese knowledge of Australian waters, DNI letter 1877/13/275 of 30 June 1941.] The hydrographer discounted the likelihood that the Japanese had actually succeeded in charting the reef. [Letter HO 2537/41 of 17 July 1941 in the same record.] This does not, of course, mean that information collected by Japanese trading and fishing craft was not transferred to a Japanese equivalent of the RN/RAN 'fleet' (classified) chart series.

128 NAA A601/1, Item 402/17/30 – Reports by Aust Trade Commissioner Tokyo (Longfield-Lloyd). Henry P Frei, *Japan's Southward Advance and Australia: From the Sixteenth Century to World War II*, Melbourne University Press, Melbourne, 1991, pp. 149–159, described the Japanese use of commercial ventures to progress the nation's steady southward advance from the mid-1930s.

129 NAA 981/1, Item Timor (Port) 22 Parts 4 and 5 – Portuguese Timor oil concessions.

130 NAA MP1185/8, Item 1933/2/114 – War Orders for HM Australian Squadron, document 'K.R.Y./2', paragraph 17. AWM 54, Item 243/6/135 – Appreciation re Possible Japanese Major Attack on Coast of New South Wales, 7 December 1940.

131 Burrell, *Mermaids Do Exist*, pp. 284–300 – Appendix I, 'Joint UK-USA Staff Conversations: Telegraphic Reports by Australian Naval Attaché February/March 1941'. Burrell recorded the full text of the messages he sent to Australia while acting as an observer at these Anglo-American talks.

132 NAA A2684/3, Item 597 – Disposition of RAN Squadron.

133 Robert Brooke-Popham, 'Operations in the Far East, from 17th October 1940 to 27th December 1941', *Supplement to the London Gazette of 20 January 1948*, p. 564.

134 In commenting on this belief, Nobutoshi Hagihara, 'Postscript to Chapter 4: Anglo-Japanese Attitudes, 1940–41', in Ian Nish (ed), *Anglo-Japanese Alienation 1919–1952: Papers of the Anglo-Japanese Conference on the History of the Second World War*, Cambridge University Press, Cambridge, 1982, pp. 99–100, observed that there were several reasons for a decline in a sense of political realism in Japanese ruling circles, but their lack of experience of total war, which haunted European survivors of WWI, was one.

135 This was not limited to official resentment. Agawa demonstrated the intensity of public feeling on the issue of the perceived slight of Japan through the enforcement of a 5:5:3 agreement in London. [Hiroyuki Agawa, *The Reluctant Admiral: Yamamoto and the Imperial Navy*, Kodansha International, Tokyo,1979, pp. 27–30.] A former British military attaché in Tokyo referred to the ending of the Anglo-Japanese Treaty at the Washington Conference as causing 'a dull glow of resentment, which every now and again showed signs of bursting into flames'. [Major General FSG Piggott quoted in Peter Elphick, *Far Eastern File: The Intelligence War in the Far East 1930–1945*, Hodder & Stoughton, London, 1997, p. 21.]

136 Pfennigwerth, *A Man of Intelligence*, pp. 83–84.

137 Layton, *'And I Was There'*, pp. 54–55.

138 Pfennigwerth, *A Man of Intelligence*, p. 84.

139 Tota Ishimura, *Japan Must Fight Britain*, The Paternoster Library, London, 1938. The book was popular in Japan and widely read in Britain, and makes interesting reading today.

140 UKNA ADM 178/178 – Difficulties encountered by the naval attaché in Tokyo in visits to naval and industrial establishments, letter of 6 April 1936.

141 Arthur J Marder, *Old Friends New Enemies: The Royal Navy and the Japanese Imperial Navy–Strategic Illusions, 1939–1941*, Clarendon Press, Oxford, 1981, p. 303.

142 David Evans, & Mark Peattie, *Kaigun: Strategy, Tactics and Technology in the Imperial Japanese Navy 1887–1941*, Naval Academy Press, Annapolis, Md, 1989, pp. 373–375.

143 UKNA ADM 116/5757–The Hilliken Report on Japanese Warship Construction, 1936.

144 Prados, *Combined Fleet Decoded*, pp. 29–30. The US Office of Naval Intelligence responded to this report with the warning that attaches 'ought to be more careful in reporting characteristics of aircraft'.

145 Denis Richards, & Hilary St George Saunders, *Royal Air Force 1939–1945: Vol. II, The Fight Prevails*, Her Majesty's Stationery Office, London, 1954, pp. 10–11. This official history clearly showed that the British knew the characteristics of the Zero in 1940. Kirby forthrightly attributed the blame to 'faulty organisation at HQ Air Command, whose establishment did not include an intelligence staff'. [Woodburn S Kirby with CT Addis, JF Meiklejohn, GT Wards, & NL Desoer, *The War Against Japan: Vol. 1, The Loss of Singapore*, Her Majesty's Stationery Office, London, 1957, p. 240.]

146 NAA A5954, Item 805/1–War Cabinet Meeting 20/01/41, Agendum 731–Japanese Planes

147 Willmott's explanation for this was, 'Westerners simply could not understand that the Japanese could equal or surpass their own best efforts in various fields at certain times... Anything was done to deny the Japanese the credit, to nurture the belief in white supremacy'. [HP Willmott, *Empires in the Balance: Japanese and Allied Pacific Strategies to April 1942*, Naval Institute Press, Annapolis, Md, 1982, pp. 173–174.]

148 Gill, *Royal Australian Navy, 1939–1942*, p. 482.

149 NAA A5954, Item 565/3–Combined Far East Appreciation of Australian Chiefs of Staff, War Cabinet agendum 14 Feb 41; and Elphick, *Far Eastern File*, pp 168–169.

150 The philosophical argument is well put by Yokoi, 'Thoughts on Japan's Naval Defeat'. in David C Evans (ed), *The Japanese Navy in World War II: In the Words of Former Japanese Naval Officers*, Naval Institute Press, Annapolis, Md, 1986, pp. 499–516.

151 Evans & Peattie, *Kaigun,* pp. 266–272.

152 The British were convinced that such a large weapon could not be handled on the deck of a destroyer. [John Bullen, 'The Japanese 'Long Lance' torpedo and its place in naval history', *Imperial War Museum Review* 3, 1988, pp. 69–79.] The USN did have an oxygen torpedo development program underway and had conducted successful trials with one. Further development and production was slowed on the orders of Admiral King. [Blair, *Silent Victory*, p. 279.]

153 Evans & Peattie, *Kaigun*, pp. 241–246.

154 NAA MP1587, Item 162 – Japanese Submarine Activity – SWPA.

155 Evans & Peattie, *Kaigun*, pp. 210–211. This did not go unremarked by the British. C-in-C China in 1937 reported that the Japanese propensity for operating as if under wartime conditions was 'theatrical'. [UKNA ADM 116/3682, Letter from Sir Charles Little, 08/10/37.]

156 AWM124, Item 4/361 – C-in-C China: Japanese combined operations 1937–40. The foreword contains the warning that the Japanese excel in combined operations, and a sad reflection on the prevailing atmosphere into which this excellent report was being launched: 'Lest it be thought that some of the remarks and conclusions contained in this paper have their foundation on the basis of a pro-Japanese outlook, it must be stated that precisely the opposite is the case'.

157 Wohlstetter, *Pearl Harbor*, pp. 44–45.

158 Marder, *Strategic Illusions*, pp. 345–346. Not all Western officers were guilty of these prejudices, but their counsel was not accepted.

159 NAA A981/4, Item DEF 226 part 1 – Defence: Admiralty Intelligence Reports.

160 UKNA ADM 116/3862 – Efficiency of the Japanese Navy, February 1936. Although Vivian and his successors continued to send derogatory reports on the IJN not all in Admiralty were prepared to accept them. In particular, DNI responded to one statement in Vivian's 1936 report about the poor state of training in ships by reminding the Naval Staff of the very high ratio of petty officers to men in IJN ships–up to one-third of the total personnel. [ADM 116/3862 – Naval Arrangements for War in the Far East, comments by Director of Naval Intelligence.]

161 Marder, *Strategic Illusions*, p. 353.

162 Wesley Wark, 'In search of a suitable Japan: British naval intelligence in the Pacific before the Second World War', *Intelligence and National Security* 1, 1986, pp. 189–211. Lowe believed that this grave underestimation of Japanese capabilities is likely to have arisen from 'a combination of ignorance, overwhelming concern with other theatres of war, feelings of innate

racial superiority, and problems of coordinating the diverse forces endeavouring to contain Japan in 1941–2'. [Peter Lowe, 'Britain and the Opening of the War in Asia, 1937–41', in Ian Nish (ed), *Anglo-Japanese Alienation 1919–1952: Papers of the Anglo-Japanese Conference on the History of the Second World War*, Cambridge University Press, Cambridge, 1982, pp. 118–119.]

163 M Bosscher, *De Koninklijke Marine in de Tweede Wereldoorlog, part 2,* T. Wever, The Hague, 1986. The Dutch labour under the difficulty that much of the relevant documentation and all the NEI Sigint records were destroyed prior to their capitulation to the Japanese. [Australian Parliament, *Report on the Loss of HMAS* Sydney, Joint Standing Committee on Foreign Affairs, Defence and Trade, Canberra, 1999, p. 19, letter from Director of the Netherlands Institute of Maritime History.]

164 NAA A2676, Item Vol. 4 – War Cabinet Minutes of 26 November 1940.

165 AWM 54, Item 213/1/3 – Staff Discussions with the NEI at Singapore in 1940.

166 Kirby, *The War Against Japan*, p. 45. The British chiefs of staff Appreciation of the situation in February 1939 showed that Britain would not be able to fully support Singapore.

167 AWM 54, Item 213/1/3 – Singapore Conference April 1941, Report by Admiral Colvin 11 May 1941.

168 Kirby, *The War Against Japan*, p. 86.

169 AWM 54, Item 213/1/3 – Anglo-Dutch-Australian Agreement Singapore February 25 1941, under the heading 'Defence of Sea Communications' stated, 'The best protection against such a threat would be to attack the Japanese in the passages through the outer line North Borneo, North Celebes, Northwest New Guinea'.

170 A Kroese, *The Dutch Navy at War,* Allen & Unwin, London,1945, pp. 31–32. However, as Willmott, pointed out, NEI forces, while numerous and well trained, were technologically inferior to the IJN units they had to fight. [Willmott, *Empires*, p. 265.]

171 Gill, *Royal Australian Navy, 1939–1942*, p. 520.

172 Bosscher, *De Koninglijke Marine*, pp. 658–659.

173 Bosscher, *De Koninglijke Marine*, pp. 658–659.

174 Layton, *And I Was There*, p. 206.

175 AWM 124, Item 4/292/VK/INT/108 – NLO Batavia Series.

176 Bosscher, *De Koninglijke Marine*, p. 658. Dutch intelligence seems to have had greater persuasive influence upon its operational commanders than its British or US counterparts. By 8 December 1941 NEI forces had been dispersed so that the Japanese had no target like the US Pacific Fleet in Pearl Harbor or General MacArthur's bombers in Luzon. Blair instanced the USN pooling its Pacific Sigint resources to warn Admiral Helfrich of a Japanese build up in Kendari, Sulawesi, suggesting an attack on Timor; the force attacked Ujung Pandang instead. [Blair, *Silent Victory*, p. 176.]

177 As a result of a series of British-American staff talks held in 1940 and early 1941, in February 1941 the two sides began a reasonably comprehensive exchange on their cryptanalytic activities. The US side provided a number of Purple machines, one of which was sent to FECB. A joint meeting was held in Singapore at the end of February, and in April a direct communications link with its own one-time pad protection was established between CAST and FECB. [Robert Louis Benson, *A History of US Communications Intelligence During WW2: Policy and Administration,* National Security Agency, Fort Meade, Md, 1997, pp. 20–21.]

178 Gill, *Royal Australian Navy, 1939–1942*, p. 470.

179  AWM 69, Item 23/22 – Allied Naval Command in the Far East.

180  NAA A3300, Item 219 – Directive to ABDACOM.

181  NAA MP1049/5, Item 1804/2/44 – SWPA – ABDA organisation, report VK/INT/119 of 26 January 1942, contains the whole staff organisation of ABDAFLOAT and intelligence staff details.

182  Collins, *As Luck Would Have It*, p. 107

183  NAA MP1185/8, Item 1877/17/19 – Reports of Information Gathered by RANLO Batavia.

184  AWM 124, Item 4/158 – Messages from ABDACOM East Indies, cable 01113 of 12 February 1942, from by CGS Dill to Casey in London, shows that the British were certainly supplying ABDACOM with ULTRA. The COIC sitrep of 23 January 1942 has a supplement titled 'Japanese naval dispositions', providing a comprehensive (and largely accurate view) of the IJN order of battle and their estimated positions. The size of Japanese submarines was, however, underestimated. The supplement is obviously an amalgam of British, Australian and US intelligence and carries the security warning: 'As this report is based on information derived from sources which, if compromised, cannot be replaced, it is requested that the distribution be restricted to an absolute minimum'.

185  AWM 124, Item 4/292/VK/INT/108–NLO Batavia. Kennedy reported that the NEI Coastwatcher scheme had come 'too late'.

186  Gill, *Royal Australian Navy, 1939–1942*, pp. 490–491.

187  NAA MP1185/8, Item 1932/2/2 – Battle of Java–Navy Office account.

188  In his war diary Collins observed that: 'It was considered unwise to keep them in the West Java Sea any longer in view of the ever increasing air activity and the weak Allied fighter protection which could be provided'. The elderly British D class cruisers were no match for any of the IJN cruisers they were likely to encounter. [NAA MP 1185/8, Item 2026/7/457 – China Force.]

189  Whiting commented that the NEI Army in Jakarta had an air reconnaissance report at 1700 of a large enemy force 100 miles north of Sunda Strait, but this was not passed to the naval headquarters in the same building. Whiting also quoted a sighting allegedly made by an RAAF bomber of a large convoy in the Thousand Islands area to the north of Jakarta earlier on 28 February. [Brendan Whiting, *Ship of Courage: The Epic Story of HMAS Perth and Her Crew*, Allen & Unwin, Sydney, 1994, pp. 85-86.] The author has found no evidence to support either claim, but Whiting may still be correct. Jakarta was on the point of evacuation by naval forces and a message from a MLD aircraft might have been missed in the port and intercepted by RecGroup Bandung. A RAAF Hudson would also have signalled its sighting to RecGroup. Army HQ in Jakarta might have received a retransmitted report from COIC Bandung. However, if that was the case, it is odd that neither Helfrich nor his RN chief of staff knew of the report. Winslow made the same claim, and pondered how this report did not reach naval authorities. [WG Winslow, *The Ghost that Died at Sunda Strait*, Naval Institute Press, Annapolis, Md, 1994, pp. 131–132.] Intelligence reports about Japanese sightings were still being sent to Allied units some days after Waller and his force were lost.

190  The Japanese stated that there were two light cruisers and nine destroyers in the convoy escort, reinforced around 0100 on 1 March by two heavy cruisers and a destroyer. *Perth* was not sunk until 0140. [AWM69, Item 67 – Japanese Strategy (A translation of document no. 15686, received by ATIS on 28 March 1946 and issued by Supreme Commander Allied Powers as 'The Battle of the Java Sea').]

191 Waller, however, did not receive any Sigint; only Helfrich saw Sigint–according to Kennedy. [AWM 124, Item 4/292/VK/INT/108 series.] This is not quite correct. Collins refers to Sigint in his war diary entry of 27 February, when he records that 'Enemy reconnaissance reports intercepted about this time indicated that *Hobart* had been mistaken for a considerably larger ship (possibly a battleship)'.

192 Petty Officer Ray Parkin, a member of *Perth*'s ship's company at the time of the sinking, stated that: 'The Captain had received a reconnaissance report that Sunda Strait was clear of enemy shipping'. [Ray Parkin, *Out of the Smoke*, Penguin Books, Melbourne, 1983, p. 248.] Accepting that Parkin wrote his book after the war, having spent three-and-a-half years as a prisoner of the Japanese, this information might be questioned. However, his account drew on the personal recollections of a number of the bridge staff, including the Chief Yeoman of Signals, who would have brought the report to Captain Waller, and therefore is worthy of some credence.

193 There was no 6-inch ammunition in Tanjong Priok, leaving *Perth* with only 60 per cent of her outfit. *Houston* had only 60 rounds per barrel. [AWM 54, Item 505/10/10 Pt 1 – Loss of HMAS *Perth*.] Ironically, fuel oil supplies in Java were limited, and the Javanese workers were reluctant to operate refueling facilities when there was a threat of Japanese air raids. [George S Dull, *A Battle History of the Imperial Japanese Navy (1941–1945)*, US Naval Institute Press, Annapolis, Md, 1978, p. 71.] Winslow recorded that only 1000 tons of fuel remained at Tanjong Priok and that it was being 'saved for ships of the Dutch Navy'. The port authorities agreed to supply 300 tons for *Perth* on learning that there were few Dutch ships left afloat. Winslow makes the excellent point that had there been many more ships to take the fuel there would have been insufficient for all to escape. [Winslow, *The Ghost that Died,* p. 130.]

194 NAA MP1185/8, Item 1932/2/219 – USS *Houston* action reports, report pers-8249-GP of 13 November 1945.

195 AWM79, Item 757/1 – Fitting of RDF in *Perth*. *Perth* was to have been fitted with radar in early 1942, but this was not achieved before the ship was deployed for ABDA service.

196 Helfrich in Bandung detected this force of cruisers and destroyers about 80nm south of Cilicap on 2 March. HMAS *Yarra* and her convoy were caught and sunk on 5 March by three heavy cruisers escorted by destroyers. [NAA MP1185/8, Item 2026/7/457 – China Force.]

197 Helfrich addressed ABDA Naval forces as follows: 'I inform all officers and ship's companies that the situation is critical. I wish to impress upon all of you the necessity for every effort against the enemy to prevent his landing on Java. Every opportunity for offensive action must be seized and all sacrifices must be made to this end'. [Whiting, *Ship of Courage*, p. 51.]

198 January 1942 saw a blizzard of cables from Australia demanding senior positions for its military staff in Allied councils and protesting at decisions already taken at the CCS level in which it had no input. [Neale, *Documents*, Documents 259, 260, 286 and 289.]

199 Lundstrom credited President Roosevelt with convincing the US Army to respond to the situation by dispatching reinforcements. [John B Lundstrom, *The First South Pacific Campaign: Pacific Fleet Strategy December 1941–June 1942*, Naval Institute Press, Annapolis, Md, 1976, pp.51–52.]

200 Willmott, *Empires*, pp. 254–259.

201 Neale, *Documents*, Document 510.

202 Gill mounted a spirited defence of the naval position, focussing on General Blamey's remarks to MacArthur on 8 December that, 'It is somewhat difficult to understand the Navy attitude of non-cooperation because of risk'. [G Hermon Gill, *Royal Australian Navy 1942–1945*, Australian War Memorial, Canberra, 1968, pp. 242–244.]

203 'Ferdinand', as the RAN Coastwatchers were codenamed, remained resolutely in RAN hands throughout the war under the direction of Feldt as commander, initially in Brisbane, but from November 1942 in Port Moresby. [Feldt, *The Coast Watchers*, pp. 95–96, & 192.]

204 Sharon Maneki, *The Quiet Heroes of the South West Pacific Theater: An Oral History of the Men and Women of CBB and FRUMEL*, National Security Agency, Fort Meade, Md, 1996, p. 92. This contains an interview with Captain Goodwin, USN, who relieved Fabian at FRUMEL in 1943, in which the following statement is made: 'Newman's. [Commander Newman RAN] duties were to monitor FRUMEL output for the Australians'. The meaning is ambiguous, but suggests that Newman did, at the least, gist the information being recovered by FRUMEL and pass that summation on to Navy Office. Nave, in an unpublished manuscript, states that Newman passed intelligence to CNS via DNI, but that he wanted to sideline DNI, a step Nave adamantly refused to countenance.

205 Lundstrom, *The First South Pacific Campaign*, pp. 49–52 and 55–57.

206 AWM 124, Item 4/216 – SO (O) War Diary First Half 1942.

207 Toshikazu Ohmae, 'The Battle of Savo Island', in David C. Evans (ed), *The Japanese Navy in World War II: In the Words of Former Japanese Naval Officers*, Naval Institute Press, Annapolis, Md, 1986, pp. 213–214. The date for the occupation of Port Moresby was set for early May.

208 This plan appears to have been the result of a compromise struck between the Army and Navy. The latter favoured a direct attack on northern Australia, but the Army was reluctant to find the 12 divisions deemed necessary for such an operation and viewed the accumulation of the 1.5 million gross tons of shipping needed to support them as outside Japan's capacity. [Kiyoshi Ikeda, 'Japanese strategy and the Pacific War, 1941–5', in Ian Nish (ed), *Anglo-Japanese Alienation 1919–1952: Papers of the Anglo-Japanese Conference on the History of the Second World War*, Cambridge University Press, Cambridge, 1982, p. 134, and Lundstrom, *The First South Pacific Campaign*, pp. 40–41.]

209 Samuel Eliot Morison, *History of US Naval Operations in WW II vol. IV: Coral Sea, Midway and Submarine Actions May 1942–August 1942*, Little Brown, Boston, 1967, p. 21. CTF 17 Oporder 2-42 of 1 May 1942.

210 Before this occurred, Admiral Crace had issued on 11 February 1942 his 'Policy Notes by the Flag Officer Commanding Anzac Squadron'. Intriguingly, Crace gave his anticipated threat priorities as 'Port Moresby, New Caledonia, Fiji, Ellice Islands'. His appreciation predated any possible Sigint suggestions about Japanese intentions, as Singapore had not yet fallen and ABDA fought on.

211 Admiral Inouye's South Seas Force Order 13 of 23 April launching Operation MO was not detected by Sigint, but its effects in the movements of ships and aircraft and in the vast increase in naval communications were. [Frederick D Parker, *The Priceless Advantage: US Navy Communications Intelligence and the Battles of Coral Sea, Midway and the Aleutians*, National Security Agency, Fort Meade, Md, 1993, p. 11.]

212 This was the standard mandated by Admiral King also, but it was obviously relaxed for US CTFs when they embarked a Radio Intelligence team in their flagships, as happened with Admiral Fletcher at Coral Sea. [Benson, *A History*, p. 47.]

213 MacArthur's reasons may not have been based on security considerations. Fabian noted that he had to ask Admiral Carpender to remind MacArthur of the need for security of ULTRA. [Maneki, *The Quiet Heroes*, p. 90.] Parker surmised that MacArthur might also have entertained doubts as to the veracity and reliability of Sigint. [Parker, *A Priceless Advantage*, pp. 19–20.]

214 CINCPAC intelligence messages were addressed only to CTF 16–Halsey (speeding back from the famous Doolittle raid on Tokyo) and CTF 17–Fletcher, using a special cypher. TF 44 was absorbed into the latter as the Support Force TG 17.3. Unless Fletcher was passing on 'operational' summaries based on these, Crace would not have received this information, and there is no evidence that he did.

215 David A Thomas, *Japan's War at Sea: Pearl Harbor to the Coral Sea*, Andre Deutsch, London, 1978, pp. 40–42.

216 Allied cryptanalysis recovered this instruction but, because of their inability to break the whole message, they were unsure whether these attacks were being deleted or added to Takagi's orders. [Lundstrom, *The First South Pacific Campaign*, p. 90.] This is probably the origin of the belief, in some quarters, that the Battle of the Coral Sea 'saved' Australia.

217 This was an example of the 'For a hap'orth of tar the boat was lost' adage. The bad weather was off Rabaul where Takagi for two days tried unsuccessfully to land nine Zero fighters to boost the defence. This minor incident delayed the Striking Force and may have cost the Japanese the battle.

218 NAA B5553/1, Item 3 – FRUMEL Records (incomplete) of communications intelligence relating to the Coral Sea battle, contains a chronological summary of Sigint decrypts on the Japanese intentions.

219 Chris Coulthard-Clark, *Action Stations Coral Sea: The Australian Commander's Story*, Allen & Unwin, Sydney, 1991, p. 81.

220 The CINCPAC Intelligence Bulletin, issued daily to these and other addressees, contained the information. In addition, MacArthur's chief of staff Sutherland issued a series of instructions to his subordinate commanders concerning the Japanese approach from 16 April onwards. The summary of these instructions – NAA B6121/3, Item 86B – Signals MacArthur to Various Addressees Concerning Expected Japanese Attack Against Port Moresby and NE Australia – carries no security classification, although Sigint is clearly included. The final instruction bears the notification '(From US Navy, to be regarded as 'Most Secret' and not to be reproduced)'.

221 Coulthard-Clark, *Action Stations!*, p. 42. Crace's embarked staff comprised the flag captain (Captain HB Farncomb of HMAS *Australia*), his secretary, his flag lieutenant commander (also acting as fleet communications officer) and his staff officer (Operations and Intelligence). Farncomb was the RAN's senior Australian officer at the time and had a considerable experience of sea postings in the RN and RAN. In addition he had held a number of staff positions and had completed the Imperial Defence College staff course in 1931. [AW Grazebrook, 'First to a flag: the life of Rear Admiral HB Farncomb', in Tom Frame, James Goldrick & Peter Jones (eds), *Reflections on the RAN*, Kangaroo Press, Kenthurst, NSW, 1991, pp. 189–196.] What is not clear is the extent to which Crace (and Crutchley later) used this experience. An officer onboard *Australia* at the time avers that Farncomb's advice was always sought and respected by the fleet staff. [Commodore AN Dollard, DSC, RAN, (Rtd), correspondence with author.]

222 AWM 124, Item 4/216–SO (O) War Diary First Half 1942.

223  US National Archives, College Park Annex (NACP) RG38, box 95 – Records of the Office of the Chief of Naval Operations, WWII action and operational reports – TF 17. CTF 17 Oprod 2-42.

224  NACP RG38, box 95 – Records of the Office of the Chief of Naval Operations, WWII action and operational reports – TF 17. CTG 17.5. [air commander] COMCARDIV 1 report A16-3/FB2-1 (0251) of 18 May 1942, 'Action report – Coral Sea, May 7–8 1942'.

225  NACP RG38, box 95 – Records of the Office of the Chief of Naval Operations, WWII action and operational reports – TF 17. CTF 17 Oporder 2-42.

226  The whole incident is covered in some depth by John Lundstrom, 'A Failure of Radio Intelligence: An Episode in the Battle of the Coral Sea', *Cryptologia* 7, 1983, pp 99–118. The problem occurred because of a garble in the recovered text. When associated with other decrypts showing that the striking force was also to launch an attack on Port Moresby on 7 or 8 May, and raid bases on the Australian mainland (subsequently revealed to be options offered to Takagi but not binding on him) the westerly estimated position of the Japanese carriers became self-evident to Allied analysts.

227  Strategists and analysts have debated this decision ever since the battle. The consensus is that this was a foolish decision, one which diluted the defences of TF 17 and may have subtracted from the ability of the carriers to be protected. There is another aspect. Fletcher was known to dislike what he called 'mixed command'–having American units under the tactical command of foreign officers. He told Captain Smith, commander of a cruiser division at the Rabaul operation under Crace's orders, that, 'You'll not have to do it again. Next time I shall give him an independent command'. [William Ward Smith, *Midway: Turning Point of the Pacific*, Crowell, New York, 1966, p. 22.]

228  Thomas, *Japan's War*, pp. 156–157.

229  NACP RG38, box 95 – Records of the Office of the Chief of Naval Operations, WWII action and operational reports – TF 17. CTF 17 A16-3/(0010N) of 27 May 1942, 'The Battle of the Coral Sea May 4–8, 1942'. Fletcher did not transmit during Coral Sea until after his 8 May strike on Takagi.

230  Parker, *A Priceless Advantage*, pp. 29–30

231  Lundstrom, *The First South Pacific Campaign*, p.72. The origin of the belief that Allied battleships might be encountered appears to have had its origin in an appreciation of 28 April originated by Takagi. We are again reminded that the IJN was frequently ready to see battleships where none could possibly be.

232  AWM 124, Item 4/216–SO (O) War Diary First Half 1942.

233  When a USN Dauntless dive bomber approached TG 17.3 requesting directions to *Yorktown*, Crace was obliged to send the aircraft to Port Moresby instead. [Coulthard-Clark, *Action Stations!*, p. 102.]

234  NAA A11093/1, Item 373/25A – RAAF Command HQ – Observations on the Employment of Shore Based Aircraft in Coral Sea Engagements. Allied Air Forces Headquarters steadfastly refused to accept responsibility for bombing TG 17.3 by B-17s, even though photos taken by the aircraft proved the charge.

235  The Australian Prime Minister, for one, was not impressed by the outcome. 'It was felt that the results of the operation were rather disappointing, the more so as we had ample warning of the enemy's intentions, the prospective date of attack and the strength of his forces. With the advantage of this information we should have been able to concentrate the superior strength necessary to have ensured a complete victory'. [NAA A5954, box 50 – Letter of 16 May 1942 Curtin to MacArthur.]

236 Puleston quoted Japanese staff officers present at the battle as saying that the attempted assault on Port Moresby was given up because they could not destroy Crace's surface force. [WD Puleston, *The Influence of Sea Power in World War II*, Greenwood Press, Westport, Conn., 1947, p. 137.]

237 The 25th Air Fleet not only sighted a battleship but sunk one as well. Decryptions by FRUMEL of traffic of 9 May revealed a claim that HMS *Warspite* had been sunk in the battle. Despite repudiations issued by the British on the publication of this report, on 22 May Naval Intelligence Tokyo was still chasing Fourth Fleet for photographs to substantiate the claim. [NAA B5555/1, Item 3 – FRUMEL Records (incomplete) of Communications Intelligence Relating to the Coral Sea Battle.]

238 Thomas, *Japan's War,* pp. 191–192.

239 Tulagi was also the site of a seaplane base set up by the RAAF and abandoned in the face of increasing Japanese attack in late April 1942.

240 NACP RG38, box 95 – Records of the Office of the Chief of Naval Operations, WWII action and operational reports - TF 17. CTF 17 A16-3/ (0010N) of 27 May 1942, 'The Battle of the Coral Sea May 4–8, 1942'.

241 George C Dyer, *The Amphibians Came to Conquer: The Story of Admiral Richmond Kelly Turner*, Department of the Navy, Washington, DC, 1969, pp. 235–247. At Arcadia the suspected Japanese objective was New Caledonia. One outcome was the establishment of US and Allied military garrisons on islands along the route. The US advance was to be from Efate in the New Hebrides via the Solomons to New Britain. Admiral King had raised the concept of an offensive in the South Pacific as early as 25 June. WATCHTOWER was the first operation in a series ordered by a JCS Directive of 2 July 1942. [Gill, *Royal Australian Navy, 1942–1945*, pp. 116–117.]

242 Dyer quoted a 29 July letter to Turner from Crutchley, who was reluctant to take this position because the USN was providing most of the forces. However, Turner persisted. [Dyer, *The Amphibians Came to Conquer*, p. 294.]

243 Except for Fletcher (Coral Sea and Midway), none of these senior US officers had any battle experience at all. Turner's most recent sea duty was command of a cruiser of the Asiatic Fleet. His former ship, *Astoria,* was lost at Savo Island. [Dyer, *The Amphibians Came to Conquer*, pp. 150–151.]

244 GGO Gatacre, *Reports of Proceedings: A Naval Career 1921–1964,* Nautical Press, Sydney, 1982, p. 157. Gatacre was staff officer operations and intelligence to Admiral Crutchley. He remarked on TF 44: 'The Task Force carried out day and night exercises off Moreton Bay, revealing that the battle efficiency of the ships, with the exception of *Australia,* was very poor ...the American ships were, as yet, unpractised in wartime operations'.

245 Jack Bleakley, *The Eavesdroppers,* Australian Government Publishing Service, Canberra,1992, p. 61.

246 NAA B6121, Item 105J–Solomons: WATCHTOWER Operations Signals, USS *Chicago* message DTG 010128Z August 1942.

247 Fletcher had agreed, after much acrimony, at the pre-sailing conference of commanders on 26 July that his carriers would support the landings for only two days, that is until the morning of 9 August. [Dyer, *The Amphibians Came to Conquer*, pp. 299–302.] He cited concern about Japanese submarines and the possibility of shore-based air attack as his reasons for withdrawing. Fletcher's caution was criticised by Nimitz as 'most unfortunate'. [NAA B6121/3, Item 105N–Solomons campaign: Savo Island COMSOPAC, CINCPAC preliminary comments, CINCPAC file A16-3/Solomons, serial 02576 of 23 August 1942.] However, he

did have command of three of the four remaining fleet carriers in the USN, a heavy strategic responsibility against which the tactical considerations of Operation WATCHTOWER must have taken second place. But, as Nimitz asked, why not leave one carrier in place while refueling the others?

248  The three US cruisers had no experience of operating in company, but they did have voice radio communications between bridges, which TF 44 Force did not. [MP 1185/8, Item 1932/2/226−Hepburn report, annex B, Crutchley memo of 21 February 1943 to Hepburn.]

249  Dyer, *The Amphibians Came To Conquer*, p. 372. Dyer implied the meeting was requested by Crutchley to update him on the situation and Turner's future intentions. Crutchley had asked for an update earlier in the day, but this request had been overtaken by Turner's realisation that he was shortly to be without air cover for his force and would have to withdraw. [MP1185/8, Item 1932/2/226 − Hepburn Report, Annex T.]

250  Gill, *Royal Australian Navy, 1942−1945,* p. 155. The floatplanes were detected and reported but thought to be friendly. This Japanese tactic was reported on by HMAS *Perth* after the Battle of the Java Sea and appears in the COIC sitrep for 1 March 1942. [NAA MP1558/10, Item Vol. 4 − COIC sitreps 18/02/42-08/03/42.] This information appears not to have been distributed to operational commanders.

251  In fact, Mikawa's force had never operated together as a unit: 'They had never so much as trained together in steaming in column formation'. [Ohmae, *'*Battle of Savo Island*'*, p. 226.] In his commentary on Ohmae's account of the battle Admiral Mikawa stated, 'My choice of night action …was made because I had no air support on which to rely… On the other hand, I had complete confidence in my ships and I knew that the Japanese navy's emphasis on night battle training and practice would ensure our chances of success in such an action'. [Ohmae, 'Battle of Savo Island', p. 243.]

252  NACP RG 457, SRH012 − The role of communication intelligence in the American-Japanese Naval War, Vol. III − The Solomon Islands campaign, June 21, 1943. This history provides a number of examples of how Sigint was applied to the preparation for the assault and to the aftermath of Savo Island.

253  Loxton, *The Shame of Savo*, p. 135.

254  Bleakley, *The Eavesdroppers*, p. 60.

255  Turner was regarded as suspicious of Sigint, but this time his demurral was firmly based. Inadequate communication facilities were a major problem hampering effective control of TF 62, liaison with the other TFs, and receipt and dispatch of information. [Loxton, *The shame of Savo*, pp. 49−54.]

256  Messages containing ULTRA were sent using a special cypher to prevent unauthorised receipt. However, the RACAS cypher log for the period of WATCHTOWER contains several messages not addressed to Crutchley. He probably, in a time-honoured custom of navies, had his signal staff decode traffic not addressed to him in order to keep his 'finger on the pulse'. In the event this was a wise precaution. [NAA B6121/3, Item 105N−The Battle of Savo Island, Minute to DNI 622/202/4356.]

257  On passage to the landing zone, Crutchley worried about submarines. Turner was not so concerned, despite air-reconnaissance sightings and a sinking of a cargo ship off New Caledonia on 27 July. The 'air reconnaissance' reports might well have been Sigint-derived. [Dyer, *The Amphibians Came to Conquer*, pp. 316−317.]

258 As previously noted, USN and RAN practice was to fly cruiser aircraft only during daylight. This was enforced by the difficulties of landing and recovering floatplanes at night and the very limited surveillance capability of an aircraft operating at night without radar. [Loxton *The Shame of Savo*, pp. 43–44.]

259 Dyer, *The Amphibians Came to Conquer*, p. 298, listed the breakdown by type.

260 Feldt, *The Coast Watchers*, pp. 109–112, and Gill, *Royal Australian Navy, 1939–1945*, pp.122–124.

261 The performance of this intelligence system in reporting the first Japanese air raid was impressive. The Coastwatcher message was detected by the Coast Radio Service in Port Moresby and relayed to Townsville for the senior intelligence officer. It was retransmitted to Canberra and then out on the RAN Fleet broadcast and to Hawaii for the US Pacific Fleet broadcast three minutes later. [Lawrence Durrant, *The Seawatchers: The Story of Australia's Coast Radio Service,* Angus & Robertson, Sydney, 1986, p. 159.]

262 Feldt, *The Coast Watchers*, p. 140.

263 McCain did not report the results of searches conducted on 7 August until 0200 on the 8th. In fact, bad weather had prevented searches west and southwest of Guadalcanal. As with the report on the following day's aborted searches, this information would have been immensely valuable to Turner and Fletcher at the time the searches were cancelled so that alternatives could be considered.

264 The RAN investigation into the failure of *Canberra*'s radar to detect the Japanese force determined that her Type 271 radar had been detecting cruisers at 13nm and was said to be operating reliably on the night of 8–9 August. The investigation showed that *Canberra* had at least three detection opportunities, missed apparently because of a failure to keep a plot of radar contacts and the inability of the operator on watch to distinguish between land returns and ship echoes. [AWM 79, Item 756/3 – RDF Aspect of Loss of HMAS *Canberra*.]

265 Loxton described a staff meeting held by Crutchley before the summons to Turner's flagship at around 2035 to discuss the significance of the morning's reports from the Hudsons. As the aircraft report indicated the IJN force was inferior to TF 62, the view was that the Amphibious Group was not its immediate target. However, the possibility of a surface attack was not ruled out. [Loxton, *The Shame of Savo,* pp. 110–111.]

266 'While pursuing a southeasterly course some 30 miles NE of Kieta we observed an enemy Hudson bomber shadowing us at 0825 … We were spotted by another Hudson flying quite low. Salvos from our 8-inch guns sent this observer on his way … These contacts naturally caused us to assume that our intentions had been perceived by the enemy and more search planes would appear'. Mikawa ordered a reduction in speed and a course change to the northeast in an attempt to confuse his intentions from the aircraft. [Ohmae, 'Battle of Savo Island', p. 230.]

267 NAA B6121/3, Item 105N – The Battle of Savo Island, 'RACAS cypher log'. A patrolling fighter from USS *Wasp* shot down a floatplane in the vicinity of Rekata Bay that morning, and Turner concluded this was the destination of the force reported by the Hudsons. Crutchley's Report of Proceedings also contains that information. The aircraft was from *Kako,* one of Mikawa's cruisers.

268 Ohmae, 'Battle of Savo Island', p. 233. The only air reconnaissance was Japanese. 'The catapulted seaplanes reported three enemy cruisers patrolling the eastern entrance to the sound south of Savo Id'. Despite the 'poor' weather conditions, the Japanese managed to launch two air strikes against the Amphibious Force, one around midday on 8 August and the other later in the afternoon.

269 NAA B6121/3, Item 105E – Hepburn report, USS *Blue* – DD387/A16 serial 045 of 7 September 1942 – states that its SG radar was operating satisfactorily and that it had clear paints of USS *Ralph Talbot* patrolling to the northeast. 'No contacts which might have been enemy surface craft were obtained prior to commencement of action by such vessels'.

270 MP 1185/8, Item 1932/2/226 – Hepburn report.

271 In an intensely researched book designed to restore the reputations of the RAAF Hudson crews, whose 'failure' to report their detections of Mikawa's force was viewed by US analysts as a prime cause of the debacle, two Australian authors proposed in 1992 that their enemy contact reports had been received by many ships of TF 62 close to their time of transmission and that a surface attack around 0100 on 9 August was widely anticipated, not least by the US cruisers of the eastern force and by Fletcher's carriers. [Denis Warner, & Peggy Warner, *Disaster in the Pacific: New Light on the Battle of Savo Island*, Allen & Unwin, Sydney, 1992.] The inactivity of the senior commanders, Fletcher, Turner and Crutchley, when in possession of that information, must therefore be viewed as culpable or at least demonstrating dangerous incompetence. While impressed by the effort that the Warners put into their research, and agreeing with their contention that the Hudson crews did all that they could to make their reports, this author believes that they missed the point. The Battle of Savo Island was not lost because of the late receipt or inappropriate attention given to two enemy contact reports. Instead, a crescendo of Allied intelligence failures enabled Mikawa to pull off his magnificent feat of arms. It is inconceivable that Turner and Crutchley would not have taken every step to defeat Mikawa had they known that he was planning to attack TF 62. King and Nimitz, both shrewd men and neither averse to sacking commanders they regarded as incompetent, thought so too.

272 King accepted the Nimitz explanation of the primary causes of the defeat, which included the failure of air surveillance, erroneous estimates of the enemy's most likely course of action and over-dependence on radar. [NAA MP1185/8, Item 1932/2/226 – Loss of HMAS *Canberra*, CINCPAC letter Pac-11-Sn A17, serial 00888, undated.]

273 Crutchley was well regarded by the Americans, officially commended by CANF/Commander 7th Fleet and served on in a variety of subordinate command positions until his reversion to the RN in 1944. [NAA MP1214/1, Item 592/201/1383–Rear Admiral VAC Crutchley VC–report by C7F.]

274 Dyer, *The Amphibians Came to Conquer,* pp. 371–372.

275 NAA MP 729/6, Item 12/402/25 – Singapore Conference February 1941. Australia signified willingness to accept these responsibilities in a cable to London on 27 March 1941.

276 Neale, *Documents*, Documents 62, 187, 195, 225, (the latter a scathing cable from Prime Minister Curtin).

277 Australia reported to the United Kingdom on 18 June that there were 400 Australian and 200 Dutch military personnel on Timor facing around 6000 Japanese, and that there was no question of surrender by the Allied force. [Neale, *Documents*, Document 527.]

278 Movements of the Australians towards an imminent landing point were delayed until the last possible minute lest it be observed and reported to the Japanese. IJA reaction time was reckoned to be around three hours. [Bernard Callinan, *Independent Company: the Australian Army in Portuguese Timor 1941–43,* William Heinemann, Melbourne, 1953, p. 183.]

279 Callinan, *Independent Company*, pp. 185, & 218–219.

280 NAA A5954/69, Item 518/18 – Report by ACNB on loss of HMAS *Armidale.*

281 The range of the aircraft available – RAAF Hudsons and Beaufighters – was much greater, but they were few in number. The chances of a Beaufighter successfully beating off an attack on a ship by Zeros was also questionable. [Marsden Hordern, 'Touching on Fairmiles', in David Stevens (ed) *The Royal Australian Navy in World War II,* Allen & Unwin, Sydney,1996, pp. 169–172.]

282 AWM 69, Item 23/47–Operation HAMBURGER. On 18 November the force was renamed Lancer.

283 An intelligence report by a Portuguese on 19–20 November regarding the situation on the island stated that, 'Senor Santos was emphatic in his opinion that the Japanese intend to eliminate Lancer Force prior to the wet season making movement too difficult …the object being to seize all south coast anchorages and deny us the opportunity to maintain or reinforce Lancer'. There is no indication of the distribution that was given to this report, but if it reached RAAF Command HQ then one would expect ACNB to have seen it. [NAA A11093, Item 373/2W – RAAF Command HQ–SWPA: Air Assistance to Land Force Timor (old title HAMBURGER Ops).]

284 NAA MP151/1, Item 429/201/943 – Casualties in HMAS *Armidale.*

285 On 23 December, after preparing a dispatch to Prime Minister Curtin stating that the ship 'was never assigned to my command and when lost was not operating under my orders', MacArthur backed down when corrected by Admiral Carpender. He decided instead not to include the loss in his communiqué on the grounds that the enemy did not know this information. [AWM69, Item 23/33 – Pacific Theatre Commands, Miscellaneous Signals Inter-fleet, Inter-command, Folio 4.]

286 NAA A5854/69, Item 518/18 – Report on loss of HMAS *Armidale*, CO HMAS *Castlemaine* Report on Operation Commencing 29 November 1942 of 7 December 1942.

287 NAA A5854/69, Item 518/18–Report on loss of HMAS *Armidale*. In reading the report of the Board of Enquiry one cannot escape the feeling that the corvettes' extensive use of their radios not only alerted the Japanese to their presence off Timor but also provided their positions. As has been seen in previous episodes, the breaking of radio silence was a serious issue and one not lightly considered. Yet Pope required and encouraged his ships to do so.

288 Very briefly, more than 100 survivors were left clinging to the ship's motor cutter, a severely damaged whaler and a Carley float. After waiting for rescue for two days, the commanding officer elected to try to reach Australia and summon assistance. His boat was sighted and an air search mounted for the other craft. Both were located but only one was recovered despite extensive searching. The other, with more than 30 personnel onboard, disappeared without trace, leaving only a photograph of their hopeful upturned faces taken from the first aircraft. Frank Walker, *HMAS* Armidale *Lives On*, self-published, Budgewoi, NSW, 2005, pp, 65–92.] The official record and a response to pleas by the relatives of those lost for an explanation of the tragedy is at NAA MP151/1, Item 429/201/943 – Loss of HMAS *Armidale*. It was not until the sighting of survivors on 2 December that Pope knew that the ship had been sunk.

289 Outside the Pacific, the RAN was manning a squadron of N class destroyers in the Mediterranean, later to be supplemented with a second destroyer squadron and a force of corvettes.

290 Allen argued that until after Savo the RAN had struggled to find some composite set of tactical doctrine and procedures to use in the war against the Japanese. While this is a reasonable position to take, it would be fairer to say that *all* the Pacific Allies, and especially the USN, had been through the same struggle. Once the gaps, errors and omissions had

been violently drawn to the Allies attention by the IJN, the semblance of agreed doctrine emerged. [Stephen Allen, 'Night Action off Savo–1942', in Tom Frame, James Goldrick & Peter Jones (eds), *Reflections on the RAN*, Kangaroo Press, Kenthurst, NSW, 1991, pp. 169–170.]

## Taking the Offensive, 1942—45

291 By 19 October 1943 the Japanese Navy Ministry had reached the following conclusion on the progress of the war: 'The United States and Great Britain are now taking the initiative in the war, and will soon concentrate their entire strength for a determined offensive thrust intended to bring the war to a decisive stage by the middle of next year'. [NAA MP1582/7, Item 1944 – Australian Station Intelligence Summaries Parts 1 and 2, War Edition, ASIS 68 of 31 June 1944, p. 169: Allied Translator & Interpreter Section translation 'Shortage of Japanese Shipping'.]

292 Gill, *Royal Australian Navy 1942–1945*, p. 398. This decisive battle policy was to survive Yamamoto and was endorsed by his successor Admiral Koga Mineichi. At Koga's urging in September 1943 Imperial Headquarters endorsed the Z Plan, which demanded the retention of a new outer perimeter of bases within which the Combined Fleet could manoeuvre to defeat the Americans. In his turn, Koga's successor, Admiral Toyoda Soemu, revised the Z Plan as the A-Go Operational Plan. This did indeed provoke decisive battle, but the IJN did not emerge victorious.

293 NACP RG457–SRH 264: A lecture on communications intelligence by Captain JN Wenger, Deputy Chief of Naval Communications, 14 August 1946, pp. 26–29. USAAF fighters shot down Yamamoto's plane on 18 April 1943 while he was on an inspection tour of IJN bases in the New Britain area, the tour and its itinerary having been disclosed by Sigint. The incident roused strong suspicions in the IJN about the security of their codes, but an investigation led to the conclusion that the CinC's travel plans had been accessed by Allied coastwatchers. [Agawa, *The Reluctant Admiral*, p. 369–373.]

294 In October 1943 the War Cabinet made the following affirmation of Australia's position: 'It is of vital importance to the future of Australia and her status at the peace table in regard to the settlement in the Pacific that her military effort should be concentrated as far as possible in the Pacific and it should be on a scale to guarantee her an effective voice in the peace settlement'. [Gill, *Royal Australian Navy 1942–1945*, p. 466.]

295 SJ Butlin, & CB Schedvin, *War Economy 1942–1945*, Australian War Memorial, Canberra, 1977, pp. 22 & 39–46. The authors provide a detailed account of the Australian Government's efforts to manage the manpower demands of the war. With 40 per cent of the country's male labour force engaged in defence or defence industry, Australia had to provide for its own requirements plus meet commitments to its Allies in the provision of foodstuffs and war materials and the construction of capital works to support them. The outcome was summed up in the report of the War Commitments Committee in January 1943. Manpower commitments were forecast to grow at the rate of 35,000 per month between January and June 1943, but realistic expectations were that only 10,000 positions could be filled.

296 The major units were four N class destroyers and two Q class destroyers–more RAN destroyers than in the Pacific until the arrival of the British Pacific Fleet. In addition, a number of corvettes served with the British Eastern Fleet, while others employed as minesweepers were involved in Mediterranean operations.

297 EB Potter & Chester W Nimitz, *The Great Sea War: The Story of Naval Action in World War II,* Harrap, London, 1961, p. 55. King's message of 16 March 1943 implementing the new command structure subsumed the two US submarine forces, Admiral Crutchley's TF 44 (now TF 74) and the nascent amphibious force of Admiral Barbey. It also created a new TF 78, comprising escort vessels and mine warfare craft. [AWM69, Item 23/53 – Pacific Theatre commands, miscellaneous signals, inter-fleet, inter-command, G-3 Journal 16 Mar 1943.]

298 For the extraordinary arrangements for the dissemination of ULTRA intelligence in GHQ SWPA, see the report made by the two US Army special security officers (Ashby and O'Connell) sent out from Washington to sort out these matters in SWPA. [NACP RG 457, SRH - 127–Use and dissemination of ULTRA in the South West Pacific area 1943–1945.]

299 AWM69, Item 23/53 – Pacific Theatre Commands, Miscellaneous Signals, Inter-fleet, Inter-Command, G-3 Journal 20 Mar 1943.

300 The RAN adopted USN tactical and manoeuvring instructions in the SWPA from late 1942 onwards. In fact, there was a parallel system, with HMA Ships continuing to receive British publications, but American publications were those most likely to be found on the bridge. [NAA MP1049/5, Item 1984/2/338 – Tactical Intercommunication Between British and US Naval Forces.]

301 Crutchley, CTF 44 said: 'My experience with Task Force 44 has convinced me that there is no real difficulty in operating a combined squadron of our two nations ...I attribute this to the whole-hearted support which I have had from all of the many US Commanding Officers with whom I have had to work, many of them not even belonging to Task Force 44'. [NAA MP1049/5, Item 2026/7/823 – TF 44–Diary of Proceedings Dec 1942, '1942–The Naval Force in Australian Waters'.]

302 Australian resources of Japanese linguists were exhausted as early as July 1942, when SIB was making efforts to recruit British officers of the consular and diplomatic service who were being repatriated from Japan. The efforts were unsuccessful. [NAA MP 1185/8, Item 2021/5/689–Loan of Additional Japanese Interpreters, Minute Nave to Long 28 July 1942.]

303 There is a personal letter on file from Crutchley's Secretary to Navy Office dated 23 February 1943. The letter refers to highly sensitive reports, which had been sent to RACAS from ACNB, and the comment is made that, 'The reports are mainly intelligence and we get a good deal of this information through holding ECM'. ECM was the US Navy's electric coding machine, indicating that Crutchley was receiving intelligence directly from USN sources. This does not necessarily mean that he or his USN Liaison officer held the keycards for ULTRA messages. [NAA MP1049/5, Item 2021/8/362 – Japanese Documents Captured from Sunken Submarines.]

304 NAA MP1185/8, Item 2021/7/311 – Intelligence Arrangements Northeast Area, Personal Letter from Long to Captain AH McCollum USN, Combat Intelligence Officer GHQ of 11 November 1943.

305 British Government, *White Paper CMND 6751, German, Italian and Japanese U-boat Casualties During the War: Statistical Statement,* His Majesty's Stationery Office, London, 1946. Tables show 110 Japanese submarines lost to 'American' forces, which includes other Allied forces under US operational control. The White Paper warned, 'The relative importance of the various forces which contributed to the Anti-U-Boat War should not be judged solely on the number of U-boats attributed to each of them … many ships, aircraft and minefields sank few U-boats, but their presence in a certain area discouraged them from approaching it, and forced them to frequent other areas where they could be more easily attacked and could

do less harm to the Allied cause'. [NAA MP1185/8, Item 2026/3/755 – RAN Sinkings of Submarines.]

306 In September 1943, CSWPSF had 41 RAN and 17 USN ships under his command, and the March 1944 target was 54 RAN and 47 USN vessels. Waning Japanese capability to prosecute the submarine war obviated the need for this build-up. [David Stevens, 'South West Pacific Sea Frontiers', in Stevens (ed), *The Royal Australian Navy in World War II*, Allen & Unwin, Sydney, 1996, pp. 96–97.]

307 The contribution made by the Allied navies to the support of his Papuan and New Guinea campaigns apparently escaped the attention of the supreme commander, for it was not mentioned in any of General MacArthur's communiqués. CNS Royle wrote to CANF Carpender on 18 February 1943 to complain about this lack of recognition by GHQ of the Navy's achievements. [NAA MP1049/5, Item 2026/10/1499 – Policy of announcement of sinkings of merchant ships by enemy action off the Australian coast.]

308 In 1941 ACNB advised the War Cabinet that minesweeping had been given priority over anti-submarine warfare and that only seven ships 'have been fitted out for employment as A/S vessels'. [AWM124, Item 4/353 – Review of Navy War Effort and Activities to September 1941.] The Sound Detection Branch of the RAN was only established in 1937. [by Australian Navy Order 151/37], and the first classes had to be sent to the United Kingdom for training. [NAA MP151/1, Item 600/204/2017 – Anti-submarine Personnel–ratings.]

309 This is despite Admiral Yamamoto's directive of 22 December 1941 to his 'Commerce Destruction Unit', which included two submarine squadrons, to 'carry out a vigorous campaign of destruction of sea traffic in the Indian Ocean and Australia areas'. [David M Stevens, *A Critical Vulnerability: The Impact of the Submarine Threat on Australia's Maritime Defence, 1915–1954*, Sea Power Centre - Australia, Canberra, 2005, p. 172.]

310 NAA MP 1587, Item 162 – Japanese Submarine Activity SWPA. This record contains a post-war statement by Vice Admiral Mikawa that, 'The fundamental purpose of this unit. [the 6th Fleet] was to serve as an auxiliary to the main Fleet'. This supports the comments by Vice Admiral Fukudome Shigeru, former chief of staff Combined Fleet: 'In Japan however, the reduction of a heavily escorted US warship fleet took precedence over all other targets. [Mochitsura Hashimoto, *Sunk!: The Story of the Japanese Submarine Fleet, 1942–1945*, Cassell, London, 1954, p. 178.] Ironically, when the time came in June 1944 for the IJN submarine force to fulfill this mission against the US 5th Fleet in the Philippines Sea it failed utterly. 'They gleaned no valuable information; they failed to sink or even to damage a single United States ship; and 17 of them were sunk by United States destroyers, destroyer escorts or planes'. [Samuel Eliot Morison, *History of US Naval Operations in WW II, Vol. VIII: New Guinea and the Marianas, March 1944–August 1994*, Little Brown, Boston, 1968, p. 199.]

311 IJN submarine attack doctrine was that submarines should attack during the day and use guns on merchant ships, torpedoes being reserved for use against warships. If the merchantman was armed the action was usually broken off because the captains were under orders not to risk their boats. Convoys were not usually attacked for the same reason. These instructions created a cautious submarine arm, seen by the Allies (and the Germans) to lack aggression. [Arthur Marder, Mark Jacobsen & John Horsfield, *Old Friends New Enemies: The Royal Navy and the Imperial Japanese Navy – the Pacific War 1942–1945*, Clarendon Press, Oxford, 1990, pp. 253–254.]

312 While this chapter deals with the east coast of Australia, mention should be made of an earlier attack by four IJN minelaying submarines in the Timor and Arafura Seas in January 1942. Their task was to mine the approaches to Darwin and the western exit from the Torres Strait, in which they were unsuccessful. As well, on 24 January RAN corvettes sank *I-124* off

Darwin. [David Jenkins, *Battle Surface! Japan's Submarine War Against Australia 1942–44*, Random House, Sydney, 1992, pp. 100–108.]

313  NAA MP1049/5, Item 2026/12/200 – Protection of Shipping in Event of War with Japan–Convoys. This was to be a continuing problem for the RAN throughout the war. Minutes and correspondence dealing with setting up convoys to Europe and New Zealand dating from June 1941 indicate shortage of escorts was a perceived problem–unescorted convoys being seen as easy meat for raiders.

314  The RAN had one ASW training ship and only an obsolete former Dutch submarine to train with. The USN ships in SWPA had neither. [Stevens, 'South West Pacific Sea Frontiers', p. 95.]

315  The largest IJN submarines were nearly twice as big as comparable British and US boats: I-11 displaced 2900 tonnes and *Kaida* class I boats 1800 tonnes as compared with the 769 tonnes of the standard German Type VII. [Robert Wallace, *The Secret Battle, 1942–1944: The Convoy Battle off the East Coast of Australia During World War II*, Lamont Publishing, Ringwood, Vic., 1995, p. 26.]

316  MP 1185/8, Item 2026/8/755 – RAN Sinkings of Submarines. DTSR minute of 1 May 1946 noted that the IJN lost 71 per cent of its submarine force, as compared to German 67 per cent. Aircraft accounted for fewer sinkings in the Pacific theatre than in Atlantic (more planes in Atlantic and concentrated nature of search area vis-a-vis Pacific). The IJN's high casualties were attributed to poorer operational experience of IJN submarine commanders and better sonar conditions in the Pacific.

317  NAA B6121, Item 174AB – Intelligence Reports on IJN Submarines.

318  As transmissions were made after attacks the submarine often went undetected beforehand. In his analysis of radio intelligence in the ASW campaign, Stevens noted that during its war patrol in March 1943, only the third and fourth of five I-6 transmissions were intercepted and DF-ed, and only the latter was decrypted. [Stevens, 'The Role of Radio Intelligence in the Anti-submarine War Around Australia, 1942–45', *Journal of the Australian War Memorial* 25, 1994, p. 27.]

319  NAA MP1049/5, Item 1866/2/174 – A/S School Confidential Instructions.

320  Jenkins provided a full description of this patrol, including the overflight of Australian and New Zealand ports by the submarine's floatplane. [Jenkins, *Battle Surface!*, pp. 127–149.]

321  Jenkins quoted FRUMEL reports dated 30 May to show this; CSWPSF and CANF would have been on the distribution. [Jenkins, *Battle Surface!*, pp. 170–171.] On 26 May the New Zealand Naval Board reported DF of a submarine 700nm east of Sydney and on 29 May reported an enemy unit only 40nm off Sydney. [Gill, *Royal Australian Navy 1942–1945*, pp. 63–64.] The IJN operation order for the attack on Sydney originated on 26 May and was not decoded until after the event, illustrating that the Allies did not have the capacity to decode all intercepts and that in deciding the priority of work important messages could be missed. It will be recalled from Chapter 3 that the same problem occurred in relation to the Battle of Savo Island.

322  Stevens, *A Critical Vulnerability*, p. 192, suggested that the reason for the haphazard response to the Japanese presence was because all available escorts and aircraft had been deployed on troopship protection duties.

323  FRUMEL noted communications between submarines off the east coast and their Jaluit base on 4 June and DF fixes of submarines in the Tasman Sea. There appear to have been no attacks made on these detections by ASW forces, which had been diverted by false reports

of submarines south of Sydney. Attacks on these were 'successful' and claims were recorded. [Jenkins, *Battle Surface!,* p. 245.]

324  Stevens, *A Critical Vulnerability*, p. 201.

325  The poor showing by these 6th Fleet boats illustrates the inexperience of their commanding officers and their cautious attitude. Also of note are Hashimoto's comments on the ineffectiveness and tactical utility of IJN submarine gunnery. [Hashimoto, *Sunk!*, pp. 27–32.]

326  NAA MP1587/1, Item 316A–CINCPAC Bulletins (ULTRA Sigs), daily reviews 1/12/42-28/05/43.

327  Six of these sinkings were attributed to one submarine, *I-21.* Although the Japanese assault was only modestly successful, the loss of another ore carrier on the Whyalla-Newcastle run prompted the Minister for Supply to term the iron ore transportation situation difficult trending to serious. [NAA A2682, Item Vol. IV – AWC minutes, minutes of 9 February 1943.] The AWC condemned the inability of the ASW forces to deter the aggressors. The RAN's response provides a succinct snapshot of the ASW situation in mid-1943. [NAA MP1049/5, Item 1932/3/8 – A/S warfare.]

328  David M Stevens, 'The War Cruise of *I-6,* March 1943', *Australian Defence Force Journal* 102, 1993, pp. 39–46. Stopping sea traffic and diverting shipping around submarine probability areas were successfully used by CSWPSF to limit the attack opportunities presented to the IJN boats. It was the achievement of just this capability that had prompted the establishment of the Sea Frontier concept.

329  NAA A11093/1, Item 676/38D – Protection of shipping by shore-based aircraft, Navy Office letter unregistered of 2 July 1942. The issue was still being discussed in May 1943, nine months after ACNB had issued a directive to all NOICs to attend to the problem, and nearly three years since the failure of communications between RAAF reconnaissance aircraft and HMAS *Manoora* during the search for MV *Romolo.* See minute 6/2/22 of 27 May 1943 from the air intelligence officer Sydney to SASO. [NAA A11066/1, Item 6/2/22 – HQ Eastern Area intelligence: submarine DF fixes and sightings.]

330  NAA B6121, Item 316A – CINCPAC Bulletins.

331  NAA A11066/1, Item 6/2/24 – Appreciation of submarine positions.

332  NAA A11066/1, Item 6/2/22 – HQ Eastern Area Intelligence: submarine DF fixes and sightings, contains a personal letter from AOC Eastern Area to RAAF Headquarters dated 26 April 1943. The letter raised the problem of getting sufficient intelligence of submarine activity for the RAAF to make effective use of in ASW patrolling. Although the AOC blamed the Navy for his problems, hindsight suggests that his staff were not authorised to receive the Sigint information that could have assisted them to resolve the submarine picture, even in sanitised form.

333  USN accounts seem to refute this conjecture, pointing instead to a decline in intercepted traffic from the IJN submarine force because of stricter communications security procedures. [NACP RG 457, entry 9002–Studies on Cryptology 1917–1977, SRN 20: Narrative Combat Intelligence Center, Joint Intelligence Center, Pacific Ocean Area.]

334  NAA MP1049/5, Item 1932/3/31–Conference on A/S Training, contains a letter of 27 June from the commander of escort and minecraft forces showing official concern at the inability of the Allied ASW forces to destroy submarines. Advances in ASW weapons systems, such as the ahead-throwing weapon Hedgehog, were not fitted in the Allied units engaged in SWPSF. In his letter BN0431 of 5 May 1943 to ACNB, NOIC Brisbane attributed the failure

of the ASW escorts to sink submarines to the lack of training and differences in attack procedures used by the RAN and USN. [NAA MP1049/5, Item 2002/2/175 – Escort Vessels A/S Training.]

335  Not all of this was accepted without demur since, as was pointed out by the ASW Directorate, the different strategic, tactical and oceanographic circumstances of the Pacific War did not automatically admit to solution by Atlantic methods. A report from the commanding officer HMAS *Townsville* on 27 December 1943 following a training exercise with a USN submarine noted 'Temperature gradient appears to be a very real element in sub-tropical waters and any available information concerning it and methods of estimating working ranges would be appreciated'. [NAA MP1049/5, Item 2026/4/142 – *Townsville* Report of A/S Exercises.] Oceanic temperature gradients and their prediction are also major factors in modern ASW.

336  CNS Minute 2026/12/509 of 15 November 1944 to the Minister for the Navy in NAA A2684/3, Item 1588 Part 6 – Security of convoys: introduction and cessation of convoy system off east coast of Australia.

337  MP1049/5, Item 1932/3/55 – Instructions regarding offensive action against enemy submarines. The Standard Operating Procedure implemented a categorisation of submarine probability areas, based on intelligence. These were Class A – an area wherein enemy submarine operations will be most probable and expected, Class B – an area wherein enemy submarine operations are a possibility and air countermeasures are desirable, and Class C–an area wherein enemy submarine operations are improbable and countermeasures are not necessary without intelligence to the contrary.

338  Two of this boat's companions were sunk on their approach to Australia by submarines based in Australia using information derived from Sigint. [David M Stevens, *U-boat Far from Home: The Epic Voyage of U 862 to Australia and New Zealand*, Allen & Unwin, Sydney, 1997, pp. 127–140.]

339  NAA B6121, Item 71G – Hollandia, Naval Intelligence Reports. The port was an obvious target, handling a large proportion of the military convoys supporting MacArthur's assault on the Philippines. Unable to rig a loop detector system, the Allies protected the anchorages with a line of moored sonobuoys, backed up with continuous radar coverage.

340  British Ministry of Defence, *War with Japan, Vol. III – The Campaigns in the Solomons and New Guinea*, p. 148. This official history suggested that the Japanese might not have agreed with this assessment at the time. It stated that the IJN Sixth Fleet was inclined to accept the exaggerated reports of both the numbers of sinkings and the tonnage destroyed submitted by its commanding officers, which would have painted an altogether rosier picture of the campaign.

341  Stevens illustrated the point with the observation that the presence of a single Japanese submarine off the east coast of Australia in June 1943 occupied 56 warships in the convoying of 84 convoys and involved the RAAF flying 702 sorties on ASW duties. [David Stevens, '*I-174*: The Last Japanese Submarine off Australia', *Journal of the Australian War Memorial* 22, 1993, p. 40.]

342  Evans and Peattie urged the use of a corrective lens on this 'unwarranted comparison of Japanese and German submarine successes'. [Evans and Peattie, *Kaigun*, p. 497.] However, the Germans shared the Allied view of the Japanese submarine arm as cautious and lacking tactical experience. Above all, the IJN seemed not to grasp the strategic significance of attacks on lines of communications that the Germans were waging, and for which purpose they had been sent to assist the Japanese. [NAA B6121, Item 167A – Submarines – German

and Japanese Operations Indian Ocean: Interrogation Reports U-boat POWs–U168 sinking by *Zwaardfisc.*]

343 Quoted in Wallace, *The Secret Battle*, p. 14.

344 HMAS *Geranium* assisted by HMS *Fantome,* one of only four survey ships in the RN. [NAA MP1185/8, Item 1920/1366 – Organisation of Hydrographical Work on Australian Coast.] The area for which the RAN accepted charting responsibility amounts to roughly one-seventh of the world's oceans.

345 The concentration of survey effort was on routes between the China Strait at the eastern extremity of Papua and eastern Australian ports, with Torres Strait as a secondary task. [NAA MP1185/8, Item 1920/1366 – Organisation of Hydrographical Work on Australian Coast.] In 1922, HMAS *Geranium* became the first survey ship ever to employ aerial photography in hydrographic work using her embarked RAAF seaplane. [Jason Sears, '1919–1929: An Imperial Service', in David M Stevens (ed), *The Australian Centenary History of Defence Vol. III: The Royal Australian Navy*, Oxford University Press, Melbourne, 2001, p. 55-79.] This technique was to be extensively used in the conflict to come.

346 RJ Hardstaff, *Leadline to Laser: The Hydrographic Service Royal Australian Navy, 1922–1995*, Kyodo Printing Press, Sydney, 1995, p. 11.

347 On 12 February 1938 the Prime Minister wrote to the Minister for Defence noting the conclusion of the 8th Interstate Conference of Harbour Authorities in April 1937 of the 'need for accurate surveys of the Australian and Tasmanian coasts and that he be requested to give early consideration to speeding up this urgently required work'. The fact was that there were no more survey ships nor surveyors and efforts to procure or build a new class of small survey ship for the RAN foundered when the Defence estimate to pay for them was rejected. [NAA MP981/1, Item 658/201/2336 – Surveying: Proposed Hydrographic Survey of Australian and Tasmanian Coasts.]

348 Goldrick, 'Australian Naval Policy', p. 104.

349 Blamey stated: 'I submit it is the duty of the Navy:– (a) to move the force by sea, (b) to take protective action to cover the landing. This requires at least two destroyers and two corvettes. I understand that the Navy is reluctant to risk its vessels. I desire to point out that the Navy is only being asked to go where the Japanese have frequently gone… Safety First as a naval motto – Shades of Nelson'. [AWM69, Item 23/54 – Operation PROVIDENCE: Allied planning for occupation of Buna prior to Japanese landing, letter from General Blamey to General MacArthur of 8 December 1942.]

350 AWM69, Item 23/84 – Operation PROVIDENCE: Allied planning for occupation of Buna prior to Japanese landing.

351 Hardstaff, *Leadline*, p. 22. Actual attacks on survey ships became more frequent as the Allied advance progressed along the New Guinea coast. On 2 January 1943, twenty Japanese aircraft attacked HMA Ships *Whyalla, Stella* and *Polaris* while surveying near Cape Nelson. *Whyalla* incurred splinter and blast damage and suffered casualties, but continued the survey.

352 *Warrego* was to sweep a route to Goodenough Island deep enough for vessels of 9-metres draft and to survey an anchorage for them in preparation for a landing there. The AMS was advised that it was 'highly desirable not disclose to enemy and therefore northwest end of sweep should be carried out by night during the period around full moon'. [NAA MP1185/8, Item 1893/2/118 – Coordination of surveys New Guinea area, CANF message DTG 0102Z/13 October 1942.]

353 In gaining this intelligence GHQ was conscious of the value of photo reconnaissance in planning amphibious operations. But photographic interpretation could not provide all the answers and therefore needed to be backed by personnel inspection of likely landing spots. [Daniel E Barbey, *MacArthur's Amphibious Navy: Seventh Amphibious Force Operations 1943–1945,* United States Naval Institute, Annapolis, Md, 1969, pp. 32–33.]

354 Two small vessels surveyed Oro Bay itself on the night of 27 November 1942 while under attack by Japanese aircraft dropping flares to illuminate them as targets for bombers. [Hardstaff, *Leadline*, p. 20.]

355 NAA MP1185/8, Item 2026/2/636 – Surveying vessels and pilots for temporary employment by Amphibious Force New Guinea, CANF letter A4-1, serial 00657 of 16 June 1943.

356 The specifics of what was requested by the Allied Geographical Section (AGS) of GHQ SWPA are spelled out in a letter unregistered of 15 November 1942 to the hydrographer. [NAA MP1185/8, Item 1893/2/118 – Coordination of Surveys New Guinea Area.]

357 The term is used in a relative sense. Barbey recorded that the safe movement of his landing force to Finschhafen was a creditable performance because the charts were 11 nm in error. [Barbey, *MacArthur's Amphibious Navy,* p. 92.]

358 McGuire, *The Royal Australian Navy*, p. 146. McGuire further stated (p. 150) that 'a running survey in 1874 was about the sum of our hydrographical knowledge north to Goschen Strait'. There is a 'before and after' comparison of charts of Cape Nelson in the vicinity of Gona in Stevens, *The Royal Australian Navy,* p. 137. The 'before' survey–markedly different from the 1942 version–is dated 1874 with additions in 1885.

359 A warning by the Allied Geographical Section (AGS) is germane: 'It. [AGS] is working very often on information from people who have not very exact memories, or have not been in the areas for some time'. [NAA MP1185/8, Item 1893/2/118 – Coordination of surveys New Guinea Area, AGS letter of 15 November 1942.]

360 This was not the invariable rule. Japanese shore batteries in the Philippines in particular frequently took ships of TG 70.5 under fire. Off Santa Cruz Bank, near Zamboanga, in early 1945 the survey ships found themselves under intense shellfire and at one stage *Warrego* was obliged to conduct a gunnery duel until the offending batteries were silenced. One survey motor boat was holed and beached during the action. [Hardstaff, *Leadline*, p. 31.]

361 Hardstaff, *Leadline*, p. 246.

362 Hardstaff, *Leadline*, p. 23.

363 Barbey, *MacArthur's Amphibious Navy*, pp. 156 & 171.

364 There is a particularly stirring account of the activities of HMAS *Warrego* in the Philippines in McGuire, *The Royal Australian Navy*, pp. 280–284. This little ship faced almost every kind of hazard that the Japanese could put in her way, survived them all, and completed her tasks with great credit. It required considerable courage to continue with the necessarily ponderous routine of surveying shallow waters dominated by the enemy while under sustained shellfire, and without being able to respond with the evasive manoeuvres of a less hampered warship.

365 Survey vessels had been used to bombard shore targets before but this seems to have been the only surface action involving TG 70.5 during the war. [Hardstaff, *Leadline*, p. 30.]

366 Hardstaff, *Leadline*, p. 30.

367 NAA MP1290/1, Item 30–USN op plans Operation OBOE 1, Tarakan May 1945, Com7Phib OpPlan 9-45, annex B–Intelligence.

368 AWM 54, Item 617/7/19 – Interview with Brigadier DA Whitehead. In an interview on 9 August 1945, the commander of the assaulting 26th Australian Infantry Brigade gave his account of the difficulties and inaccuracies of the information provided. He appears to have been less than impressed, and was sceptical (rightly) about the beach information he was given to work with. The majority of this seems to have been provided by a series of clandestine teams led by Dutch personnel, and this was correlated and reported in a December 1944 Military Study. [AWM54, Item 617/7/50 – NEFIS Military Study of the Island of Tarakan.]

369 NAA MP1290/1, Item 6 – USN op. plans Operation OBOE 6, Brunei Bay Jun 1945, CTG 78.1 attack order, annex H–Intelligence.

370 *Lachlan*'s boats laid markers only 30 yards from Green Beach. [Gill, *RAN 1942–1945*, 639.]

371 Hydrographic intelligence is summarised in NAA MP1290/1, Item 4 – USN Op Plans Operation OBOE 2 Balikpapan Jul 1945, C7Phib OpPlan 12-45, Annex C – Intelligence. The information provided to ships was extensively reproduced in Mervyn Eather & Bill Galmes, *Taken by Storm: The True Story of HMAS* Manoora*'s Experiences in the South West Pacific Theatre of War*, HMAS Manoora Association, Melbourne, 1995. Of particular note is the high quality of the oblique aerial photography, which clearly shows the beach defences destroyed by the sappers. Commander Amphibious Group Eight's action report, V-32 contains the following comment on intelligence provided: 'The defences at BALIKPAPAN were vastly superior in strength, construction and complexity to any thus far encountered in the area. They were, however, with few exceptions, almost identical to those predicted in the Intelligence Plan to CTG78.2 OpPlan no. 6-45'. [AMW69,Item 19, Gill papers – CAG8–Balikpapan.]

372 News of JAYWICK remained secret until August 1945 when newspaper accounts appeared. The defence minister gave the first official account to Parliament on 1 August 1946 in connection with gallantry awards approved by the King.

373 Ronald McKie, *The Heroes*, Angus & Robertson, Sydney,1980, Lynette Ramsay Silver, *The Heroes of Rimau: Unravelling the Mystery of One of World War II's Most Daring Raids*, Sally Milner Publishing, Sydney, 1990**,** and *Krait: The Fishing Boat that Went to War*, Sally Milner Publishing, Sydney, 1992.

374 Peter Thompson & Robert Macklin, *Kill the Tiger: The Truth About Operation RIMAU*, Hodder, Sydney, 2002.

375 NAA B3476, Item 159 – DNI Information General: irregular organisations, GHQ SWPA directive covering the organisation, co-ordination and operation of inter-allied units known as Special Operations, Australian Section, Secret Intelligence Service, Australian Section, Combined Field Intelligence Section and Military Propaganda Section of 6 July 1942. The unit was 'charged generally with obtaining information of the enemy and his activities and with the execution of acts of sabotage against the enemy'.

376 UKNA HS 1/258 – Operation JAYWICK: Reports, Diary Minute BB/1434 of 26 October 1943 to 'A.D.' titled 'Jaywick'.

377 UKNA HS1/257 – SOE Far East–Operation JAYWICK. B/B 100 minute no. 682 of 20 June 1942 to 'B/B'.

378 UKNA HS1/257 – SOE Far East–Operation JAYWICK, unnumbered, undated minute titled 'Raid on Singapore', possibly the original proposal penned by Lyon.

379 UKNA HS1/257 – SOE Far East–Operation JAYWICK, minute unnumbered of 13 February 1943 from AD/U to D/U datelined Brisbane and titled JAYWICK. 'The whole thing would have got nowhere without the DNI, Commander Long. He is a person of considerable importance in the background'.

380 UKNA HS1/257 – SOE Far East–Operation JAYWICK, SOE message 449 DTG 1525Z of 15 August 1942 from Australia advised that 'Expedition being undertaken under direction of Royal Australian Navy through whom all communications should be addressed'.

381 Royle was now also in the chain of command and had to give his approval before resubmitting the plan to the authorities in India. [UKNA HS1/258 – Operation JAYWICK: Reports, Diary, B/B minute BB/1434 of 26 October 1943 to A.D.]

382 UKNA HS 1/257 SOE Far East – Australia Operations: JAYWICK–China Seas Project: destruction of shipping in Singapore Harbour (Major Ivor Lyon), report. [again] unnumbered, undated and unsigned titled 'JAYWICK'–hereafter referred to as the 'JAYWICK Organisation Report'. This contains an organisation chart showing Lyon at the top and Campbell as administration and liaison. There seems to have been little formal connection with SOA, as JAYWICK was not mentioned in reports of SOA operations in 1943. NAA A3269/12, Item O8/B–SOA Official History Vol. 2: Operations, notes simply in the introduction to the Malaya-China Sea section that 'The operations were, though not entirely disconnected, not the subject of master planning'. The JAYWICK Organisation Report in UKNA HS 1/257, under the subheading 'Liaison' noted: 'Naval HQ. Continual liaison is maintained with SO (I) Naval HQ Potts Point, who is acquainted with the object of JAYWICK and who maintains contact on our behalf with DNI Melbourne'. The SO (I) Sydney–DNI-FOCRIN, GSI (K)-MEWLO link–was the communications channel to SOE.

383 NAA A3269/12, Item H4/A–SRD Intelligence organisation and procedure, February 1945–Orders.

384 UKNA HS 1/257, another undated, unnumbered and unsigned report 'Operation–JAYWICK', possibly written in March 1943.

385 NAA A3269, Item O7/A – History of Inter-Allied Services Department and Special Reconnaissance Department–Operations, 7. The staff organisation shows neither Lyon nor Campbell on the establishment of ISD, but stated that from May 1942 the intelligence section was headed by a lieutenant RAN Volunteer Reserve. This position was supposed to support activities at Z experimental station.

386 NAA A3270, Item vol. 1 – History of Inter-Allied Services Department and Special Reconnaissance Department–Part II: directorates, sections, operational groups and establishments, Directorate of Plans stated simply: 'In addition, Capt. I. Lyon planned the Jaywick operation on Singapore Harbour'.

387 UKNA HS 1/257, report undated titled 'Operations–JAYWICK'.

388 She was built for a Japanese company for fisheries work in South East Asia and christened *Kofuku Maru*. [NAA MP1049/5, Item 2026/27/296 – MV *Krait*.]

389 McKie, *The Heroes*, p. 54. Koenraad held the post of Senior Naval Officer Royal Netherlands Navy in Australia.

390 McKie, *The Heroes*, p. 80. In an effort to elucidate why this current was unexpected, the author discussed the issue with the Fleet Navigating Officer, Maritime Headquarters, Sydney. Study of the current sailing directions shows strong diurnal variations in the combination of tide, current and tidal stream through and in the approaches to Lombok and effects of the strength experienced by *Krait* are common. One would expect this information to be little different in the edition used by Carse, so why was it a surprise and why was *Krait's* passage not planned to take advantage of a favourable current? In passing, the depth, nature of the bottom and existence of extreme tidal effects would make Lombok a difficult mining prospect.

391 Blair identified at least nine patrols by Fremantle-based submarines prior to *Krait's* departure that used Lombok Strait to enter or exit the Java Sea, several operating in the vicinity of Surabaya and Karimata Straits. [Blair, *Silent Victory*, pp. 193, 195, 290, 351, 353, 356, 367, 391 & 392.]

392 NAA MP1185/8, Item 2037/2/1548 – MV *Krait* radio transmission instructions. CTF 71 letter FE24-71/A6-1 of 3 September 1943.

393 McKie, *The Heroes*, p. 150.

394 NACP RG457, SRH-144 Part II – Radio intelligence in World War II, Tactical operations in the Pacific Ocean area February 1943. CINCPAC Bulletin No. 341, DTG 200611 February 1943.

395 Lynette Silver, conversation with the author 17 April 2003.

396 NAA MP1185/8, Item 1932/2/4 – Notes on Malayan Campaign, Navy Office letter 1932/2/4 of 26 May 1942 – Report by Commander Petrie.

397 This crucial error was made despite the assertion recorded by D/U: 'I cannot say much, not knowing the islands or Singapore, but Lyon apparently does know them all well … and claims to know all the ways into Singapore in the dark'. [UKNA HS 1/257 SOE Far East – Operation JAYWICK, D/U minute to AD/U of 13 February 1943.]

398 UKNA HS 1/257 SOE Far East – Australia Operations: JAYWICK–China Seas Project: destruction of shipping in Singapore Harbour (Major Ivor Lyon), ''X' training camp: notes and observations on training', Appendix II 'Clothing'.

399 The major source for this section is the post-action report prepared by Crutchley and his staff as AF letter 1140/38 of 11 June 1944 in NAA B6121/3, Item 70B – Operation HORLICKS – Biak 25-27 May 1944–CTF 74 report, hereafter the 'Crutchley report'.

400 On hauling down his flag as CANF, Vice Admiral Carpender commented: 'Crutchley has distinguished himself as Commander Task Force Seventy Four by the energetic training program he has maintained in the forces under his command, and by his vision in planning for future demands on his forces'. [NAA MT1214/1, Item 592/201/1383, C7F letter P20/00 serial 02362 of 25 November 1943.]

401 NAA MP 1049/5, Item 2026/7/644 – TF 44 sweep into Coral Sea, June 42. The report contains the following comment by Crutchley: 'I feel there is a need here for an organisation and liaison with air forces such as is provided in the UK by Coastal Command. I believe we require such an authority to coordinate aircraft operations over the sea in this area and to relate them to the movements of surface forces operating in the area'. After a paperwork exchange lasting from December 1942 to June 1943, Crutchley browbeat CANF, ACNB and Air Officer Commanding Northeast Area into establishing procedures for the cooperation of coastal radar sites with ships in contiguous waters. [NAA MP1185/8, Item 1855/2/465 – complaint re lack of information re RDF stations and Defence installations in NE area.]

402 In his final report on operations for 1942, Crutchley noted the ineffectiveness of USAAF high-level attacks on Japanese convoys and made the recommendation that ways be found for improving the 'use of lessons learned in other theatres of war'. [NAA MP 1049/5, Item 2026/7/810–TF 44 diary of proceedings 21 Nov–21 Dec 42.] When General Kenny and his staff devised low-level attack tactics and suitably armed his aircraft, outcomes like those obtained at the Battle of the Bismarck Sea began to decimate Japanese shipping.

403 NAA MP1185/8, Item 2026/3/512 – HMA Ships *Australia* and *Hobart*: Particulars, AF letter 1000/10 of 16 July 1943 sent to C3F before the Australian cruisers temporarily joined 3rd Fleet.

404 NAA MP1185/8, Item 2037/7/550 – HMA Ships – Requirements for Improving Fighting Efficiency, AF letter 436/586/11 of 30 July 1943.

405 NAA MP1185/8, Item 2037/7/550 – HMA Ships – Requirements for Improving Fighting Efficiency, AF letter 436/586/11 of 30 July 1943.

406 Cooper, 'RAN and Allied Command'.

407 NAA MP1049/5, Item 2049/7/810 – TF 44Diary of Proceedings 21 November–21 December 1942.

408 Crutchley thought that the Japanese would not attack Milne Bay with a force inferior to his own, and if it did attack the IJN would field something vastly superior to TF 44. There was therefore not much to be gained by hanging around in the Coral Sea. 'Task Force 44 engaged, as it is at present, is in my opinion, wearing machinery, expending oil fuel and denying a period which could be used to great advantage in improving the fighting efficiency of the ships and in overhauling so that breakdowns will not impair that efficiency'. [AWM 188, Item 22–Task Force 44 (Research by Mr Ware), 7.]

409 NACP RG38, Box 1701 – Records of the Office of the Chief of Naval Operations, WWII action and operational reports–Australian Squadron: CTF 74 letter AF 1060/33 of 6 March 1944 addressed C7F.

410 Allied Sigint revealed that Japanese reconnaissance aircraft from Sorong had identified three battleships amongst the Allied landing force. [NAA B5553/1, Item whole of series (cat. C-file 3)–Periodic Sigint summaries Dec 42–Feb 44, summary of 2 June 1944.]

411 This force comprised six destroyers, under the command of Rear Admiral Sakonju Naomasa. One was sunk in this action, but the remaining five continued with their mission of reinforcement. [Morison, *New Guinea and the Marianas*, pp. 125–126.]

412 The US destroyers fired 2005 rounds of 5-inch ammunition at the IJN. The closest any Allied ship got to the Japanese was 10,500 yards. Although the Japanese used smoke skillfully and returned fire inaccurately, it must have been disappointing that no significant hits were scored on them. [Crutchley Report, p. 10.]

413 While Crutchley retained his key staff officers from Savo, only his original staff officer operations, was at Biak

414 The minutes of the meeting are in AF letter 1063/21 of 22 May 1944. [NAA B6121/3, Item 70B – Operation HORLICKS–Biak 25–27 May 1944–CTF 74 Report.]

415 Even with four of his ships newly joined, on the night of 8 June Crutchley was able to order an anti-surface disposition. He later recorded that a subsequent order to the newly joined destroyer squadron commander 'was not received'. [Crutchley Report p. 6.] Morison suggested that this was an instance of a Nelsonian telescope to the blind eye by an eager commander with an enemy in his sights. [Morison, *New Guinea and the Marianas*, p.127.] Whichever the correct explanation, there were no other communications difficulties during the action.

416 NACP RG38, Box 1701 – Records of the Office of the Chief of Naval Operations, WWII action and operational reports–Australian Squadron, CTF 74 letter AF 1050/9 of 13 January 1944 addressed CINC US Fleet (King). Crutchley responded to a report by USS *Phoenix* stating that the British Type 281 radar in *Shropshire* was superior to the US equivalent because of that ship's excellent performance. He made the point that it was not the radar but the operators that made the difference and subsequently arranged for US cruiser radar teams to train with his so as to improve the performance of the entire TF.

417 USS *Boise* made the first radar detection of the Japanese force at a range of 26,000 yards–13nm. The ships of the screen 3nm closer than the flagship reported the range as 21,000 yards–10.5 miles. [Crutchley Report, p. 6.] Subsequently the Japanese were tracked out to 38,600 yards–19.3nm, which was a huge improvement on the 5000 yards expected by USS *Blue*, the radar picket at Savo.

418 His report refers to use of the 'Flag Plot'. This might mean a plan position indicator, but could also mean a display on a plotting table using transposed radar information. [Crutchley Report, p. 7.] Very probably, Crutchley and his staff were using both methods.

419 NAA B5553/1, Item whole of series – Periodic Sigint summaries Dec 43–Feb 44, contains three pages dealing with Sigint on the KON Plan.

420 NAA B5553/1, Item whole of series – Periodic Sigint summaries Dec 43–Feb 44.

421 Crutchley's 'strategical appreciations' conceded not only that two forces might be involved, but that there were also two sides of Biak on which the reinforcements could be landed, and that he had to be able to prevent an attempt on either side. [Crutchley Report, p. 12.]

422 The Japanese had concentrated what they termed their 'Mobile Fleet' at Tawi Tawi at the western end of the Solo Archipelago between Borneo and the Philippines, close to oil fuel sources in Borneo, where it was being held in readiness to sortie for 'decisive battle' in the Marianas. This force comprised nine carriers, six battleships, 13 cruisers and 30 destroyers. On 9 June the two *Yamato* class battleships with escorts were sailed to bolster Sakonju's forces and to recapture Biak from the Allies, with the operation scheduled for 15 June. A-Go was executed on 12 June, and the battleships altered course to rejoin the Mobile Force in the Philippines Sea. [Gill, *Royal Australian Navy 1942–1945*, pp. 414–416.]

423 Based on traffic analysis, the Allies learned in August 1943 that Japanese senior officers had flown to Wewak from many directions, inferring a transfer of a senior headquarters there. Subsequent reconnaissance and strike operations of Wewak by the 5th Air Force resulted in the destruction of over 200 enemy aircraft. [Geoffrey Ballard, *On ULTRA Active Service: The Story of Australia's Signals Intelligence Operations During WW2*, Spectrum Publications, Richmond, Vic., 1991, p. 258.] In April 1944, Wewak was the base for the Japanese Eighteenth Army of approximately 55,000 men.

424 The Eighteenth Army did attempt a westward drive about two months later. It was heavily defeated in fierce fighting with the US 32nd Division in July 1944 with the assistance of naval gunfire support from TF 74, losing nearly 10,000 soldiers in the process. Sigint played a key role in informing Allied commanders of the makeup of the attacking force, its deployment, its resupply situation and its operations orders. [Ballard, *On ULTRA Active Service*, p. 254–255.]

425 HMAS *Swan* letter SW094/2 of 27 May 1945,. [NAA MP1185/8, Item 1932/2/171 – Wewak Force: report of proceedings], hereafter 'Dovers Report', p. 1, shows that only 1700 effective Japanese troops were estimated to be in the area

426 This was to be a true joint operation with the Australian troops (Farida Force) landed by the RAN following a bombardment by aircraft from 71 Wing RAAF. [George Odgers, *Australian Experience in Joint Armed Forces Activities (DRB 101)*, Department of Defence, Canberra, 1978, p. 7.] Dovers referred to the very close cooperation between his force, 6th Division and RAAF 71 Wing.

427 Gavin Long, *The Final Campaigns*, Australian War Memorial, Canberra, 1963.

428 The Dovers report includes a large detailed map annotated with enemy positions provided by 'GS (Int) First Australian Army with information to 08/04/45'. It is a comprehensive array of intelligence on enemy positions and their strengths. Dovers commented that 'Enemy

intelligence in this area has been very reliable being obtained mainly through captured documents, aerial reconnaissance and confirmed after interrogation of enemy P.O.W.s'. [Dovers report, p. 1.] It is likely that Sigint also made a contribution although this could not be revealed to an officer as junior as Dovers.

429 NACP RG 38 – Box 250, HMS *Ariadne* secret hand message to CTF 75 DTG 200107Z June 44 re minelay at Wewak.

430 Transcript of interview of Rear Admiral WJ Dovers by author 16 November 2001, hereafter the 'Dovers interview'.

431 Dovers interview.

432 On 17 May an ordnance inspector from Manus inspected force weapons. Five of the MLs' Bofors and nine of their Oerlikons were condemned. Only by cannibalising the weapons from the larger ships were the MLs able to be kept in action. It appears that a contributing cause of the burst barrels was faulty ammunition. [AWM 78, Item 244/1 – *ML808* Report of Proceedings, May 1945 and Navy Office letter 2026/7/1351 undated.]

433 Dovers report, pp. 4–5. This was not an unaccustomed task for MLs and other smaller warships, whose relatively high speed, shallow draft and respectable armament made them ideal for inshore work of this nature. Living under tough tropical conditions in ships designed for the English Channel, the crews of MLs would have welcomed any opportunity of action of a retributive kind. Gill, *Royal Australian Navy, 1942–1945*, p. 439 provided an account of an attack on Karkar Island off New Guinea where MLs were engaged. The senior officer remarked of the operation: 'I am inclined to think it unlikely that there were many Japanese about the areas, but I have no doubt that the bombardment acted as a very fine tonic for the ship's companies concerned, as did the subsequent mentions in the press'.

434 Dovers report, pp. 2–4.

435 Dovers interview, and Peter Evans & Richard Thompson, *Fairmile Ships of the Royal Australian Navy, Vol. II*, Australian Military History Publications, Loftus NSW, 2005, pp.69–78.

436 Dovers report, pp. 8 & 10.

437 UKNA ADM1/31005 – Development of RAN intelligence organisation in wartime, Navy Office letter 151/22 of 8 January 1944.

438 'This implies that a Signal Intelligence organisation must be fully operative in peace-time in order to be available for immediate use on the outbreak of war'. [NAA B5436/2, Item Part K – Critique of CBB, p. 1.]

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439 Frank Cain, 'Missiles and mistrust: US intelligence responses to British and Australian missile research', *Intelligence and National Security* 3, 1988, pp. 6–7. In a separate article, 'An Aspect of Post-War Australian Relations with the United Kingdom and the United States: Missiles, Spies and Disharmony', *Australian Historical Studies* 23, 1989, pp. 186–202', Cain argued that this rejection of former alliance partners was led by 'intelligence operatives', and that in the case of Australia it was the USN that was the principal objector.

440 The problem of US release of classified information to the United Kingdom continued into the 1950s. 'The unpalatable truth, which there has been an understandable reluctance to expose, is that there has not been a full and frank disclosure of technical information by the United States to the United Kingdom as agreed in the Burns-Templer agreement'. [UKNA

DEFE 7/291 – Exchange of Military Information: working of the Burns/Templer Agreement, DTS (Air) minute of 17 December 1951.]

441 Wayne Reynolds, 'Atomic Weapons and the Issue of Australian Security 1946–1957', *War and Society* 17, 1999, pp. 58–64.

442 Hector Donohue, *From Empire Defence to the Long Haul: Post-War Defence Policy and its Impact on Naval Force Structure Planning, 1945–1955*, RAN Maritime Studies Program, Canberra, 1996, pp. 14–16.

443 The proposal was put to Commonwealth prime ministers in London in April 1946. 'Australia and New Zealand' were described as one of five 'main support areas' for the defence of Western interests. [UKNA CAB131/2, Report by UK Chiefs of Staff 2 April 1946: Strategic Position of the British Commonwealth'.]

444 A senior State Department official advised his British colleague that Dr Evatt was one of the reasons why the United States was unwilling to supply restricted information to Australia. This opinion appears to have been endorsed by the Foreign Office. [Christopher Waters, *The Empire Fractures: Anglo-Australian Conflict in the 1940s*, Australian Scholarly Publishing, Melbourne, 1995, pp. 164–165.]

445 HJ Yasamee & KA Hamilton (eds), *Documents on British Policy Overseas: Series II Vol. IV: The Korean War, June 1950–June 1951*, Her Majesty's Stationery Office, London, 1991, pp. 411–431. Report by the UK chiefs of staff, D.O. (51) 70, 'Defence policy and global strategy, 7 June 1950. Defence of the Middle East was termed one of the 'three pillars' of British defence strategy. The Far East was seen as 'a secondary but none the less important front'. A revision of this policy exactly one year later ended with the sentence: 'Although the world situation has become more acute…the principles of Defence Policy and Global Strategy (D.O. (50) 70) remain unchanged'. [Yassamee & Hamilton, *Documents*, p. 433.]

446 Donohue, *From Empire Defence*, pp. 6–7 & 10–13.

447 Dean C Allard, 'An Era of Transition, 1945–1953', in Kenneth J.Hagan (ed.), *In Peace and War: Interpretations of American Naval History, 1775–1978,* Greenwood Press, Westport, Conn., 1978, pp. 290–299.

448 RD Heinl, *Victory at High Tide: The Inchon-Seoul Campaign*, Lippincott, Philadelphia, 1968, pp. 6–7.

449 USN strength at the outbreak of the Korean War was only 237 ships and 375,000 men (down from 1200 major units and 3.4 million personnel in 1945). The 475,000 strong US Marine Corps had shrunk to fewer than 75,000. [Allard, 'An Era of Transition'.]

450 Minutes 206/57 of State-Army-Navy-Air Force Coordinating Committee (SANAAC), 18 May 1948, quoted in Cain, 'Missiles and Mistrust', p. 12. The issue is covered in detail in Peter Morton, *Fire Across the Desert: Woomera and the Anglo-Australian Joint Project 1946–1980*, Australian Government Publishing Service, Canberra, 1989, pp. 103–108. Reynolds suggests an alternative explanation of the US action. It was not security concerns but nuclear policy that led to the SANACC decision. The United States was concerned to preserve (as far as possible) its monopoly on nuclear weapons and technology, and sought to do so not only by limiting the outflow of information but also by restricting the scientific manpower available to other nations to staff their own programs. [Reynolds, 'Atomic Weapons', pp. 66–70.] This seems entirely plausible, given that the intelligence embargo clearly did not extend to Sigint cooperation, and that the USN during this period was actively encouraging the development of bilateral naval staff relations with the RAN, an enterprise quite impossible at 'unclassified' level. [UKNA ADM205/68, First Sea Lord Correspondence, Letter from Sir Louis Hamilton 17 June 1947.]

451 The US Sigint establishment had undergone a number of significant changes since the victory over Japan, and was experiencing severe shortages of money and manpower resources. [David A Hatch, & RL Benson, The Korean War: The SIGINT Background, <www.nsa.gov/korea>, (pp.5−6, 26 August 2003.)]

452 John Sims, 'The BRUSA Agreement of May 17, 1943', *Cryptologia* 21, 1997, pp. 30−38. BRUSA was formally extended to include the other Commonwealth partners in 1944. [Ballard, *On ULTRA Active Service*, pp. 275−279.]

453 Aldrich pointed out the attractiveness of British or ex-British possessions as sites for US technical intelligence collection activities in Richard J Aldrich, 'The Value of Residual Empire': Anglo-American Intelligence Cooperation in Asia After 1945', in Richard Aldrich and Michael Hopkins (eds), *Intelligence, Defence and Diplomacy: British Policy in the Post-War World*, Frank Cass, London, 1998, p. 228.

454 Matthew Aid, 'US Humint and Comint in the Korean War: From the Approach of War to the Chinese Intervention', *Intelligence and National Security* 14, 1999, pp. 50−51. Although AFSA established an office in Korea with the intention of coordinating Sigint tasking in support of the UN Command, each US service retained operational command and control over its resources. The failure of AFSA to achieve coordination led to the establishment of the National Security Agency. [Hatch & Benson, *The Korean War*, pp. 20−22.]

455 NAA A2304/2, Item Signal Intelligence−Report on London Conference.

456 The organisation was retitled 'Defence Security Branch' in October 1949 and 'Defence Signals Division' in January 1964. [Defence Signals Directorate, DSD − Past and Present, <www.dsd.gov.au/evolution2.html> (7 June 2001).

457 JIB's responsibilities were divided into China and Korea, Tibet, Southeast Asia, Japan, Philippines, East Indies, Central Pacific Islands, New Guinea and Coral Sea, South Pacific Islands, Australia, New Zealand and Antarctica. Survey priorities set were: 1, China, 2, Southeast Asia, 3, East Indies. [NAA2031/8, Item 268/1948 − JIB Melbourne: Priorities for Australian Intelligence Surveys, Defence Committee meeting of 2 December 1948.]

458 In January 1949 the RAN's Shore Wireless Branch, which provided the intercept operators for Sigint, comprised only 13 personnel. [NAA MP1049/5, Item 1944/2/180 − Advancement of Shore Wireless Ratings, Director of Naval Communications minute of 27 January 1949.]

459 The WRANS was disbanded on 16 September 1946 as a cost-cutting measure. The RANR was re-established on 1 January 1950, but it was not until 14 July 1955 that the former RANR Special Branch, which provided the majority of WWII intelligence officers, was reconstituted as the RAN Naval Intelligence Division−NID(R). [John M Wilkins, *Short History of Naval Intelligence and the Royal Australian Navy Intelligence Department*, self-published, Melbourne, 2001.]

460 NAA MP1049/5, Item 2021/7/346 − Appointment of NIO to Naval Occupation Forces Japan, DNI minute of 20 September 1945.

461 David Horner, *Defence Supremo: Sir Frederick Shedden and the Making of Australian Defence Policy*, Allen & Unwin, Sydney, 2000, pp. 295−296.

462 Stevens, *Royal Australian Navy*, pp. 160−162.

463 The Admiralty Battles were to take nearly five years to complete, and the *Daring* program was delayed and then reduced to three ships. [Eric J Grove, 'British and Australian Naval Policy in the Korean War Era', in Tom Frame, James Goldrick & Peter Jones (eds), *Reflections on the RAN*, Kangaroo Press, Kenthurst, NSW, 1991, pp. 249−250.]

464 On 20 December 1948 CNS Collins advised First Sea Lord Fraser that 'Owing to a lack of manpower and materials we shall only do about 75 percent of what was planned'. [UKNA ADM205/69 – First Sea Lord's correspondence.]

465 *Melbourne* was not delivered until 1955; HMS *Vengeance* on loan served in her place in the interim.

466 UKNA ADM 205/74 – First Sea Lord Correspondence, CNS Australia letter 6 October 1950.

467 AWM S02803 – Interview with Commodore AN Dollard, hereafter 'Dollard interview'.

468 Senior officers of the US Administration believed that Korea was 'expendable'. The National Security Council agreed in March 1949 (the decision became known as NSC68) that Korea was a liability for US forces, and that the solution to a potential North Korean invasion was to build up ROK forces. The policy was publicly announced by the Secretary of State on 12 January 1950. The United States was not ungenerous in providing military and financial aid to the ROK regime, but financial stringencies for defence and the overall threat to US security of the USSR clinched the decision. [David Rees, *Korea – The Limited War*, Macmillan, London, 1964, pp. 14–16.]

469 Odgers, *Australian Experience in Joint Armed Forces Activities*, pp. 10–11

470 Ball stated that after July 1948 there were no US Sigint agencies in Korea. [Desmond Ball, *Signals Intelligence (Sigint) in South Korea*, Australian National University, Canberra, 1995, p. 5.]

471 WH Packard, *A Century in US Naval Intelligence*, US Navy, Washington, DC, 1996, p. 29, quotes CIA document ORE 3-49.

472 William Stuek, 'The Korean War as international history', *Diplomatic History* 10, 1986, pp. 291–310. The guerrilla campaign was bloody and ruthless on both sides of the 38th Parallel. The DPRK had hoped to topple the unpopular regime of Syngman Rhee in the ROK in 1949 by using infiltrated agents to foment a popular uprising. ROK security forces responded vigorously to eliminate this threat, and launched counter-raids on targets in the DPRK. The DPRK's resort to conventional warfare was simply a continuation of the struggle by other means. FECOM intelligence was alarmed to find that a majority of 'northern' agents were citizens of South Korea. [Joseph C Goulden, *Korea: The Untold Story of the War*, Times Books, New York, 1982, pp. 34–35.]

473 NAA MP1582/8, Item 49–69, Australian Station Intelligence Digests, vol. 51, pp. 17–19, provided an overview of the relative state of the NKPA and ROK forces in early 1950.

474 Rees, *The Korean War*, p.13.

475 Major Peach and Squadron Leader Rankin were the only military observers appointed to UNCOK before the outbreak of hostilities. [Robert O'Neill, *Official History of Australia in the Korean War, 1950–53: vol. 1, Strategy and Diplomacy*, Australian War Memorial, Canberra, 1981, pp. 12–14.]

476 The RAN's Australian Station Intelligence Digest 52 of 1 July 1950 stated under the heading of Invasion of Korea 'The invasion, on 25th June, of South Korea by North Korean forces, accompanied by a formal declaration of war, took place sooner than expected'. This information carries no attribution, but it is clear that the Director of Naval Intelligence expected a war and had warned his digest's readership. [NAA MP1582/8, Item WHOLE SERIES – Australian Station Intelligence Digests 1–69 (09/04/46–01/12/51).]

477 O'Neill, *Strategy and Diplomacy*, p. 50. The British and Australian governments committed their ships on 27 and 28 June 1950 respectively. The 7th Fleet comprised only a carrier, one heavy and one light cruiser and 12 destroyers. [Goulden, *Korea,* p. 151.]

478 The UN Security Council adopted a resolution on 7 July 1950 assigning command responsibility for the UN forces to the United States as leader of a 'unified force', authorised to use the UN flag. The United States appointed General MacArthur as commander of that force. As COMNAVFE, Admiral Joy USN was subordinate to General MacArthur. [Anthony Farrar-Hockley, *The British Part in the Korean War: Vol. 1 – A Distant Obligation,* Her Majesty's Stationery Office, London, 1990, p. 84.]

479 An attempt was made in mid-1952 to redress the imbalance towards army in the staffing of FECOM, with the posting in of more USAF personnel. [Farrar-Hockley, *An Honourable Discharge*, p. 323.] Admiral Scott-Moncrieff, RN, commented vigorously on this lack of service coordination, among other things, following a debacle over night air operations in the approaches to Inchon in December 1951. His succinct summation of the consequences of this lack is quoted in John RP Lansdown, *With the Carriers in Korea: The Fleet Air Arm Story, 1950–1953*, Crecy Publishing, Manchester, UK, 1997, p. 198.

480 James A Field, *History of United States Naval Operations: Korea*, Department of the Navy, Washington, DC, 1962.

481 The US and British Commonwealth concepts of naval operations differed, on occasion, quite markedly. Without oversimplifying a complex issue, the differences generally had their origins in the relative sizes of the navies. The American belief that putting more resources towards a problem would solve it clashed with the British view of husbanding few and precious resources for the occasions when they could be used to full advantage. In some American circles this led to the development of a view that the British Commonwealth navies were reluctant to fight. [Robert O'Neill, *Official History of Australia in the Korean War, 1950–53: Vol. II, Combat Operations,* Australian War Memorial, Canberra, 1985, pp. 527–528.] The issue will be touched upon in detail in the incidents studied later in this chapter.

482 Malcolm Cagle & Frank Manson, *The Sea War in Korea,* Naval Institute Press, Annapolis, Md, 1957, p. 294. Admiral Dyer was being diplomatic, for there were instances of uncordiality and difficulty, but they were resolved amicably.

483 FO2ICFES set up his headquarters in Sasebo Japan, but no Australian officers were attached to this staff either. There were unsuccessful efforts by Britain – ostensibly on behalf of the Commonwealth – to gain positions on UN staffs in 1952. A British deputy chief of staff was appointed to GHQ FECOM in July 1952, and a British air vice-marshal acted as a liaison officer to FECOM. [Jeffrey Grey, 'A Military Alliance at Work? Commonwealth Forces in the Korean War', *Journal of the Australian War Memorial* 9, 1986, pp. 39–46.]

484 The situation was redressed to some degree by stripping other elements of the Pacific Command to provide another 16 officers. [Packard, *A Century,* pp. 28–29.]

485 US Naval Historical Center, CINCPACFLT Korean War – US Pacific Fleet Operations, third evaluation report 1 May–31 December 1951, Chapter 19, Intelligence.

486 UKNA ADM116/6230 – Experience in Korean Operations Initial Report, Part III – Operational, Section 7: Intelligence: 'Not well organised by the USN. Staff in Tokyo has little contact with ships'.

487 For example, see Michael Hopkins, 'Britain and the Korean War After 50 Years: The Slow Emergence of an Intelligence Dimension', *Intelligence and National Security* 15, 2000, pp. 177–182.

488 This included three RAF Sunderland flying boats. Daily reconnaissance coverage included Chinese and Taiwanese coastlines and direct communication between patrol aircraft and blockading ships were instituted in early October 1950. Packard cited 11 incidents of Chinese forces firing on UN patrol aircraft in international airspace during the Korean War, including an attempted intercept by two MiG-15 fighters on 20 September 1952. [Packard, *A Century*, pp. 100–101.]

489 Although hydrographic, navigational and beach intelligence provided for the planned amphibious assault on Wonsan in October 1950 was comprehensive. [NAA B6121/3, Item 315C – Korean Operation Orders. C7F Operation Plan 10-50, 9 October 1950, Annex E.]

490 In August 1950 the Dutch destroyer *Evertsen* ran aground on the west coast and was seriously damaged. In January 1951 the Thai frigate *Prasae* ran aground off the east coast and was a total loss. Groundings in west coast mud were frequent but rarely serious. But even in the Seoul estuary, some of the shoals had not been surveyed for 60 years. [British Ministry of Defence, Historical Branch (Naval), *Naval Staff History BR1763 (54): British Commonwealth Naval Operations, Korea, 1950–53*, Ministry of Defence, London, 1967, p. 24.]

491 The map problem could have been one of distribution. A November 1948 summary of maps available on Korea indicates that a comprehensive set of terrestrial maps existed. It also notes that the USN had copied IJN charts of Korea. [US Central Intelligence Agency, Document CIA RDP 79-00976A 00010070001: Korea: Evaluation of Maps.]

492 When Rear Admiral Andrewes, RN, FO2ICFES and Vice Admiral Struble USN, C7F met onboard the latter's flagship off Okinawa on 1 July 1950 to plan forthcoming operations they concluded that their intelligence on conditions ashore in Korea was poor. They knew nothing about NKPA bases or facilities north of the 38th Parallel and the maps available to guide aircrew to land targets were 'not much superior to those of a schoolroom atlas'. [Farrar-Hockley, *A Distant Obligation*, pp. 63–64.] The map problem could have been one of distribution. A November 1948 summary of maps available on Korea indicates that a comprehensive set of terrestrial maps existed. It also notes that the USN had copied IJN charts of Korea. [US Central Intelligence Agency, Document CIA RDP 79-00976A 00010070001: Korea: Evaluation of Maps.]

493 Even at this point CINCPACFLT concluded that inadequacies in PR resources and a shortage of PI personnel were having a serious impact on air operations. [NHC, CINCPACFLT Korean War – US Pacific Fleet Operations, Third Evaluation Report 1 May–31 December 1951, Chapter 19: Intelligence.]

494 CTF 95 recognised the importance of aerial photography on the west coast and made efforts to ensure that PR aircraft were available to support the interdiction operations of TG 95.1. [Field, *History*, p.321.]

495 Lansdown, *With the Carrier*s, pp.58–59.

496 Field, *History*, pp. 147–147.

497 NACP RG428 – CINCPACFLT interim evaluation report no.1–25 Jun to 15 Nov 1950.

498 NHC, C7F Post-46 Reports, C7F Letter F11: CES: Wes, FF/7/A12, Ser 0027 10 February 1953 – War Diary of Commander 7th Fleet for Period 1–31 January 1953.

499 This unit seems to have either duplicated or been unaware of the intelligence responsibilities of the Korean Liaison Office (KLO) set up in Seoul by US FECOM in June 1949. While its primary focus was intelligence on the NKPA, the KLO also collected hydrographic, ports and harbours intelligence in conjunction with the ROK authorities. [Packard, *A Century*, pp. 414–415.] Yet a third intelligence agency, the Far East Air Force Office of Special

Investigations, conducted similar intelligence-collection operations prior to the war. [Aid, 'US Humint', pp. 33–38, and footnote 116.]

500 AWM 78, Item 358/6 – HMAS *Warramunga* Report of Proceedings, 28 September to 4 October 1950.

501 FO2ICFES noted that there were misgivings about reliability and validity of intelligence from these sources. The locals were unable to provide any long-range intelligence such as enemy intentions and that the likelihood of double agents in the system betraying UN operations was high. [UKNA ADM 116/6228 – Korean War Report of Proceedings no. 40: 15 August to 10 September 1951.]

502 Mobile Sigint units began to be deployed in 7th Fleet ships only from August 1951, but they never numbered more than three. [Thomas R Johnson, 'General Essay on the Korean War', p.16, <www.nsa.gov/korea> (25 March 2003).]

503 This was the highest priority Allied target. The RN alone was intercepting close to 200,000 groups of Soviet transmissions per month for GCHQ by 1951. [Andy Thomas, 'British signals intelligence after the Second World War', *Intelligence and National Security* 3, 1988, pp. 103–110.]

504 An anonymous author stated that GCHQ had cooperated with the United States in monitoring transmissions between Moscow and the Communist capital of Yenan from 1943, and both nations had produced 'predictive Comint on the Chinese entry into Korea. [Anonymous, 'Cryptologic Background to the Chinese Intervention', Cryptologic Quarterly, <www.nsa. gov/korea> (pp.5 & 9, summer 1996).] The deduction is that the Hong Kong stations were at least partially tasked to monitor Chinese military communications to assist the UN cause by providing information on Chinese troop movements and this is supported by Matthew Aid, 'American Comint in the Korean War (Part II): From the Chinese Intervention to the Armistice', *Intelligence and National Security,* 15, 2000, pp. 14–49.

505 Aid, 'US Humint', pp. 43–44, documented the efforts made to cover this serious gap.

506 On 29 November 1950 CTF 95 warned all west coast units of the possibility of an attack by the PLA Air Force, and the next day a special ASW patrol was instituted in the approaches to Sasebo, Japan. [Field, *History*, p. 274.] Field did not indicate on what information these alerts were based. It may merely have been a case of prudent speculation, but Sigint is suggested. Neither form of attack eventuated.

507 For a good description of the complications caused by the Chinese to the UN Sigint effort, ranging from a lack of traffic on which to base cryptanalysis, higher-level codes than the NKPA, a lack of Mandarin translators, and a preoccupation with the likelihood of a Soviet intervention, see Aid, 'American Comint', pp. 22–27.

508 It was not only local enemy intelligence that was lacking; the identities and locations of UN intelligence collection ships and parties was also not supplied, with inevitably confusion and, regrettably, sometimes fatal results. [O'Neill, *Combat Operations*, p. 437.]

509 In the ad hoc intelligence collection executed by HMAS *Bataan* off the west coast in October 1950, the main issue was the perennial problem of competent and trustworthy interpreters. [O'Neill, *Combat Operations,* pp. 416–417.] An ROK Navy liaison team often provided these, but there was no way the UN ship could know whether the right questions were being asked, or that the answers were correctly translated. There is a colloquial account of this dilemma in Farrar-Hockley, *A Distant Obligation,* pp. 70–71.

510 This organisation titled 'Special Activities Group' was formed from United States and ROK servicemen with elements of the British Royal Marines. [Farrar-Hockley, *A Distant Obligation*, pp. 326–327.]

511 An NKPA naval and air forces order of battle is provided in Farrar-Hockley, *A Distant Obligation*, Appendix D, pp. 408–409. Four of the six torpedo boats of the North Korean Navy were encountered off the east coast by a UN cruiser and destroyer task group on 2 July 1950. In a gallant attack carried out by the Koreans against a vastly superior force, three of their boats were destroyed. [Norman Bartlett (ed), *With the Australians in Korea*, Australian War Memorial, Canberra, 1954, pp. 125–126.]

512 COMNAVFE had issued Operation Plan 116-50 on 13 November 1950 to cover the possibility of emergency evacuation of UN land forces from both east and west coast ports. It was an amazing piece of anticipatory staff work. [Field, *History*, pp. 265–266.]

513 Farrar-Hockley, *A Distant Obligation*, p. 70.

514 Cagle & Manson, *The Sea War*, p. 302.

515 O'Neill, *Strategy and Diplomacy*, p. xv.

516 *Anzac* transported a raiding party from Yang Do to a landing near Chongjin in September 1951. The raid was unsuccessful and the guerrillas suffered casualties. [Bartlett, *With the Australians*, pp. 131–132.] HMAS *Warramunga* and USS *Lind* conducted a successful shoot on 5 February 1951 against a 'welcoming committee' set up after an infiltration was 'turned' by the NKPA. [O'Neill, *Combat Operations*, p. 441.]

517 The Yong Do intelligence setup also included an EW site and an ROK guerilla liaison organisation. [AWM78, Item 34/1 – HMAS *Anzac* Reports of Proceedings, 20 December 1952 to 3 January 1953.]

518 Chongjin's principal industries were iron and steel, electric power, chemicals and railway and ship repair. It was first attacked on 19 August 1950. Songjin was a centre for transportation, minerals and timber and was first attacked two days after Chongjin. [Field, *History*, pp. 156–157.]

519 It must be noted, however, that the Communists favoured the use of mobile batteries and were adept at concealing and camouflaging them. Batteries did not always fire on UN warships, either because of a need to conserve ammunition or as a means of concealment to await a better opportunity.

520 Tom Hamilton, 'Chongjin…North Korea', in MB Pears & Frederick Kirkland (eds), *Korea Remembered: the RAN, ARA and RAAF in the Korean War of 1950–1953*, Doctrine Wing, Combined Arms Development Centre, Georges Heights, NSW, 1998, p. 307. It was known, for example, that the NKPA maintained an observation post on the north arm of Chongjin Bay, so that sneak attacks by warships were likely to be detected.

521 In June 1951 USS *Walke* struck a floating mine 60nm off the east coast with 25 men killed and serious damage resulting. [Field, *History*, pp. 356–358.]

522 CTG 77.1 supplied a daily INTSUM to east coast ships. [AWM78, Item 34/1 – HMAS *Anzac* Reports of Proceedings, 20 December 1952 to 3 January 1953.]

523 O'Neill, *Combat Operations*, p. 515. The ship's CO was awarded the DSC for this action

524 Field, *History*, pp. 419–420.

525 O'Neill, *CombatOperations*, p. 522.

526 Farrar-Hockley, *A Distant Obligation*, p. 421.

527 NAA MP981/1, Item 589/202/622 – Report of Engagement with North Korean Coastal Battery.

528 The Communists claimed they held all of the land north of the Han. In fact, the area remained disputed territory, patrolled by pro-UN guerrillas for the most part. [Cagle & Manson, *The Sea War*, p. 326.]

529 For a vivid description of the predicament faced by a frigate aground in the Han, see JPD Hall, 'Code books', in GF Hopkins (ed), *Tales from Korea: The Royal New Zealand Navy in the Korean War*, Royal New Zealand Navy Museum, Auckland, NZ, 2002, pp. 113−115. A ship stranded at low water would lose all power, as neither steam nor diesel engines could draw cooling water when high and dry. Quite apart from any list which might develop, this would critically affect the ship's self defence capability.

530 Scott-Moncrieff's doubts were expressed thus: 'Ships can generally outrange shore batteries but, at long range even with air spotting, the chance of a hit is very small and an immense amount of ammunition has to be fired to achieve destruction…There is very little information on the damage caused to shore batteries by ships' gunfire and it is believed that much of the damage claimed is exaggerated. The fact is that they are extremely difficult to locate, are well protected and, despite a very great deal of counter bombardment from ships and attacks from the air, they continue to open fire'. [O'Neill, *Combat Operations*, pp. 453–454.]

531 Robert E Capes, *HMAS* Murchison, *'Baron of the Han'*, Naval Historical Society of Australia, Sydney, 2002.

532 The scope and nature of the operation as described by Vice Admiral Dyer is recorded in Cagle & Manson, *The Sea War,* pp. 326−328.

533 O'Neill, *Combat Operations*, p. 455. It must have been an exciting time for all, especially Vice Admiral Dyer. Had he been so unfortunate as to be killed in the melee, this would have been a major coup for the Communists. As it was, he not only survived but also congratulated Lieutenant Commander Dollard and his men for their seamanship and conduct under fire. He also ordered the operation intensified, and the Yellow Sea carrier was required to bomb the Yonan Peninsula daily. [Field, *History*, p. 420.]

534 Dollard interview. Tank commanders rarely become engaged in gun duels with warships, and this commander probably did not realise that had he employed different ammunition the damage and consequences to *Murchison* would have been far more serious.

535 Dollard interview. ROK guerrillas later reported one 75mm gun destroyed and 40 dead Communists.

536 Ronald McKie, 'Baron Murchison of Han', in Norman Bartlett (ed), *With the Australians in Korea*, Australian War Memorial, Canberra, 1954, p. 243. In all, the UN survey parties took 85,000 soundings charted 26nm of channels and laid 33 navigation buoys to assist the bombarding ships. It was customary for leadsmen to be employed in the bows of the ship, sounding with a leadline to obviate this possibility. Naturally, this exposed them to some danger from enemy fire. Similarly, the channels were so narrow that frigates would turn at anchor using their engines, during which time the whole of the cable party was also exposed to enemy fire. [Capes, *HMAS* Murchison, p. 15.]

537 Capes, *HMAS* Murchison, p. 20. Dollard stated that 'We destroyed during these operations all of the weapons which we believed were hidden in farmhouses. Once we had the range on a farmhouse, we'd blow up the farmhouse and the guns went with it'. [Department of Veterans' Affairs media release 24 June 2000.]

538 McKie, 'Baron Murchison', p. 242.

539 Cagle & Manson, *The Sea War,* p. 328.

540  'Whatever the value of these operations to the peace talks, there is no doubt that they have maintained the prestige of the Commonwealth Navies'. Admiral Scott-Moncrieff quoted in Lansdown, *With the Carriers*, p. 159.

541  Capes, *HMAS Murchison*, p. 41, FO2I/CFES (Afloat) message DTG 312330Z January 1952.

542  O'Neill, *Combat Operations*, p. 440.

543  This placed coastal affairs in the hands of Kim Il-Sung, as the Chinese leadership had generally displaced the NKPA in the conduct of the main land war. [Farrar-Hockley, *An Honourable Discharge*, p. 296.]

544  Field stated that, 'intelligence indicated an extreme Chinese concern with the landing in the rear, and if no such stroke were possible one could always pretend'. [Field, *History*, p. 323.] The provenance of this intelligence was not given, but it seems to have been correct. Between 60,000 and 80,000 troops were retained near Wonsan for the assault that the Communists anticipated, justifying the long naval siege.

545  UKNA ADM1/23686 – Operation BATAAN (codenamed 'Roundup') carried out in the Haeju Gulf on 19 May 1952, HMAS BATAAN and HMS OCEAN participating, CinCFES letter 921/FES/1175/2 of 10 July 1952.

546  Ronald McKie, 'Operation Roundup', in Norman Bartlett (ed), *With the Australians in Korea*, Australian War Memorial, Canberra, 1954, p. 277. One machine gun post survived the combined bombardment and had to be destroyed by a second air strike. The bombardment had also failed to completely destroy a minefield laid to cover the beach debouchment lanes.

547  O'Neill, *Combat Operations*, p. 429.

548  By this stage the UN could read People's Liberation Army-Air Force communications well enough to intercept raids launched across the Yalu. [Johnson, *General Essay*, p. 16–17.] The lack of a target combat air patrol from *Ocean* over the Roundup area of operations suggests that UN Naval Command was confident enough of this intelligence.

549  Bracegirdle credited the success of the operation on 'the excellent intelligence obtained by Western Wolfpack guerrilla agents prior to the raid'. [UKNA ADM1/23686–Operation BATAAN (codenamed 'Roundup') carried out in the Haeju Gulf on 19 May 1952, HMAS BATAAN and HMS OCEAN participating, *Bataan* report on operation, BA/O/176/105 of 1 June 1952.]

550  Bracegirdle was appalled and reported the executions to CTG 95.1. [O'Neill, *Combat Operations*, p. 505.] COMNAVFE applied pressure on the South Korean Government to prevent future atrocities.

551  There were 19,425 persons evacuated, a considerable task for the UN. [Field, *History*, p. 449.]

552  O'Neill suggested that the government's reluctance was based on a perception that events in Korea did not pose any direct threat to Australia – which *Sydney* and her air group had been purchased to oppose – and that it had proven in the past very difficult to retrieve Australian military assets from British hands once committed. [O'Neill, *Combat Operations*, p. 466.] ACNB's objections probably had more to do with developing the operational structure and tactical organisation to use the new weapon system effectively in Australia's areas of interest. Exercises with a visiting British task force had been planned for the first quarter of 1951.

553  O'Neill, *Combat Operations*, p. 467.

554 'Do you think in September it might be possible to send up *Sydney* for about 2 or 3 months operational flying if the Korea business is still going'? [UKNA ADM 205/76 – First Sea Lord Correspondence, Fraser letter of 3 April 1951.]

555 The key postings of Commander (Air) responsible for the overall conduct of the Aviation Division, the flight deck officer responsible for all aircraft movements on and off the flight deck, the landing signals officer responsible for guiding the aircraft to a safe landing, and the commanding officers of the three embarked air squadrons were all filled by officers on loan from the RN. [Fred T Lane, & Gerry Lane, 'HMAS *Sydney* in Korea: The Sea Fury Pilot', in Tom Frame, James Goldrick and Peter Jones (eds), *Reflections on the RAN*, Kangaroo Press, Kenthurst, NSW, 1991, pp. 275–284.]

556 Interview of Fred Lane, Korean War Sea Fury pilot, by the author 12 March 2003, hereafter the 'Lane interview'. The intelligence gathered included a full set of handover notes from HMS *Ocean*, including maps and target details.

557 O'Neill noted that other carriers adopted the system of identifying and contacting downed airmen developed by *Sydney* as well. [O'Neill, *Combat Operations*, p. 475.]

558 Norman Lee, 'HMAS *Sydney* in Korea: The Firefly Pilot', in Tom Frame, James Goldrick & Peter Jones (eds), *Reflections on the RAN*, Kangaroo Press, Kenthurst, NSW, 1991, pp. 285–290. During her third patrol off the west coast, by 13 November there was not one serviceable railway line in *Sydney*'s area of operations. At least one bridge and a considerable length of track on every one had been destroyed.

559 On one occasion, *Sydney*'s aircraft noticed a small point of land on the south bank of the Sariwon River that had not been noticed a few days previously. On closer inspection it proved to be a group of nested barges fully laden, which were attacked and destroyed. [Lane interview.]

560 *Sydney's* team was pleased with the performance of the ship's Type 96 radar, which proved capable of detecting aircraft at a range of 190nm–an exceptional distance. [Alan Zammit, 'HMAS *Sydney*', in MB Pears & Frederick Kirkland (eds), *Korea Remembered: The RAN, ARA and RAAF in the Korean War of 1950–1953*, Doctrine Wing, Combined Arms Development Centre, Georges Heights, NSW, 1998, p. 326.]

561 The threat of submarine attack was an active concern to the UN Naval Command throughout the war, and at the outbreak of hostilities great efforts were made to cobble together ASW harbour defences for Japanese ports. ASW screens were finally relaxed in April 1953. [NHC, C7F Post 46 Reports, West Coast Blockade and Patrol Group Serial: 960/6(a), June 29, 1953–HMS *Newcastle*, Report of Proceedings 18 April–3 May 1953.]

562 The Naval Security Group Yokosuka included in its mission the detection of Soviet submarine activities that might have indicated a Soviet intention to use its submarines to harass or attack UN units. [Aid, 'US Comint', pp. 42–43.] As the ASW threat continued throughout the war, one can only conclude that Sigint was unable to provide the true picture. After the war it was learned that the Soviets took the decision to keep their submarines out of the area of operations of the UN Naval Command. [Farrar-Hockley, *A Distant Obligation*, p. 85.]

563 BS Murray, 'The Sea War in Korea 1950–1953', *Naval Historical Review*, June 1976, pp. 3–19. It was the practice for the TG 95.1 carrier to conduct a sweep up the occupied west coast as far as the Chinese border at first light–the so-called 'milk run'. *Sydney*'s photo-reconnaissance Sea Furies also photographed likely target areas about every two days. [Lane Interview.]

564 Farrar-Hockley, *A Distant Obligation*, p. 379 and footnote.

565 Lansdown, *With the Carriers*, p. 58. By the time HMAS *Sydney* arrived, the initial problems encountered in naval aircraft supporting ground forces had been largely resolved. These had arisen because of different doctrine, a lack of communications, a shortage of airborne spotters, and the use of inappropriate charts by the carrier aircraft. Field observed that the differences between land-based and naval air procedures for delivering close air support were never satisfactorily resolved throughout the war, despite being discussed at the highest levels. [Field, *History*, pp. 388–394.]

566 Lansdown, *With the Carriers*, p. 181. Leopard was the codename a US Army officer charged with coordinating and leading intelligence collection and other raids into Communist-held territory. Murray also recorded that the guerrillas provided 'some very good information from time to time, particularly of enemy troop movements and new gun positions'. [Murray, 'The Sea War', p. 17.]

567 Lansdown, *With the Carriers*, pp. 201–202. The guerilla reports also indicated that the aircraft had been more successful than the aircrew had claimed. Since it is more customary for aircrew (among others) to claim greater success than their efforts actually achieved, one suspects that this modesty on the part of *Sydney*'s fliers might have been induced by stern warnings from Harries not to make exaggerated claims. More practically, it was difficult for the pilots and observers to accurately record the effects of their attacks on other than discrete targets such as buildings, railways and bridges and post-operation photography would not necessarily reveal details of personnel casualties inflicted.

568 Lee, 'Firefly Pilot', pp. 288–298.

569 O'Neill, *Combat Operations*, pp. 470–471.

570 Cagle & Manson, *The Sea War*, p. v.

571 O'Neill quoted from a report by Mao Zedong in 1953: 'The important reason that we cannot win decisive victory in Korea is our lack of naval strength. Without naval support, we have to confine our operations to frontal attacks along the line limited by sea'. [O'Neill, *Combat Operations*, p. 523.]

572 O'Neill, *Strategy and Diplomacy*, pp. 154–155.

573 O'Neill, *Strategy and Diplomacy*, p. 406.

574 Apart for membership and support of UNCOK before the outbreak of the war, Australians also served on the UN Commission on reconstruction of Korea and acted as a link between the Rhee Government and the UN Command. [O'Neill, *Strategy and Diplomacy*, pp. 403–404.]

575 For example, HMAS *Warramunga* was unable to join USN ships in company in a shoot against suspected Korean aircraft, because its gunnery director could not track the targets. [O'Neill, *Combat Operations*, p. 429.]

576 However, as will be elaborated upon in Chapter 6, the RAN turned its efforts to enhancing its ASW performance. This was as a part of its contribution to British Commonwealth defence, the British view of which was outlined in First Sea Lord Fraser's letter to CNS Collins of 27 April 1950. [UKNA ADM 205/74 – First Sea Lord's Correspondence.]

577 UKNA ADM 205/74–First Sea Lord's Correspondence.

578 O'Neill recorded that when RAN officers had command of UN forces they performed well, and that this engendered acceptance of RAN competence. [O'Neill, *Combat Operations*, p. 528.] This is not disputed, but there was no extended RAN experience of higher command such as was enjoyed by CTF 44/74 in SWPA during WWII.

579 Not even the British Commonwealth Force Korea HQ had a naval element. [NAA A2107, Item K10/4 – Korean Operation Organisation HQ BCFK.]

## Securing Southeast Asia: Malayan Emergency and Indonesian Confrontation

580 Letter by Prime Minister Howard to 16th Minesweeping Squadron Reunion Social Club on the occasion of the unveiling of a commemoration plaque at the Australian War Memorial, 31 May 2006.

581 During the author's visit to the UK Ministry of Defence, Naval Historical Branch in 2003 he was assured that CinCFE and COMFEF records had been returned to London after the British withdrawal east of Suez but that they were destroyed because they were 'smelly'. Consequently, there has never been any attempt by the British to write an official history of the conflicts.

582 Jeffrey Grey, *Up Top: The Royal Australian Navy and Southeast Asian Conflicts 1955–1972*, Allen & Unwin, Sydney,1998, pp. 42–70.

583 NAA A816, Item 14/301/371 – Directive for the guidance of the Defence Department and Department of External Affairs: Defence Policy and National Security, 15 February 1946, p. 9.

584 NAA A5954/69, Item 1662/1 – British Commonwealth Conference 1946: Briefing Paper 'Defence and Security'.

585 LD MacLean, *ANZIM to ANZUK – An Historical Outline of ANZAM*, Department of Defence, Canberra, 1992, pp. 2–3.

586 Donohue, *From Empire Defence*, pp. 82–84. The Radford-Collins agreement was essentially a formal confirmation of what had been agreed as early as 1948 between Admiral Ramsay, USN, Radford's predecessor, and CNS Admiral Collins.

587 NAA A5799/15, Item 125/1952 – Responsibilities of ANZAM chiefs of staff in relation to the external defence of Malaya, attachment to CNS letter of 10 June 1952.

588 NAA A5954/69, Item 1631/1 – Strategic Planning in relation to British Commonwealth defence: basis for planning the defence of sea communications in the ANZAM region: COSC Agendum (50) 68 of 17 February 1950, p. 3. This was a significant step for the RAN, which formerly had had no strategic planning responsibilities. [Alastair Cooper, 'At the Crossroads: Anglo-Australian Naval Relations, 1945–1971', *Journal of Military History* 58, 1994, pp. 699–718.]

589 A contrary view is put by the leader of the Communist Party of Malaya, Chin Peng, who made the claim that the Australian foreign minister, Dr HV Evatt, showed interest in providing assistance to the British as early as August 1948. However, he conceded that it took two years for any assistance to eventuate, and seven years before Australian troops joined the battle. [Chin Peng, *My Side of History*, Media Masters, Singapore,2003, pp. 248–253.]

590 It was felt that the hard work that Australia was putting into the development of the Colombo Plan (1950) might be placed in jeopardy by too willing toeing of the British line on Malayan. [O'Neill, *Strategy and Diplomacy*, p. 38.]

591 NAA A5954, Item 2292/3 – Malaya 1949 – Nov 1952 file 3, Memorandum of 19 May 50. The Bridgeford Mission.

592 The report cast doubt on the value of bombing the jungle but noted a need 'for additional naval vessels'. [NAA A816, Item 6/301/650 – Report on Malaya by Australian Military Mission to Malaya July–August 1950 of 11 September 1950.]

593 NAA A1209/23, Item 1857/4152 – Strategic Basis of Australian Defence Policy 1953, Defence Committee minute 368/1952 of 8 January 1953.

594 The specific matters addressed are listed in MacLean, *ANZIM to ANZUK*, p. 6.

595 Peter Edwards, *Crises and Commitments: The Politics and Diplomacy of Australia's Involvement in South East Asia 1948–1965,* Allen & Unwin, Sydney, 1992, pp. 162–164.

596 Grey, *Up Top*, pp. 25, 29, & Table 2.1.

597 A Short, *The Communist Insurrection in Malaya*, Muller, London, 1975, pp. 19–25. The reference gives a detailed background history of the Communist Party of Malaya and its role in the MPAJA.

598 The MRLA had members from other ethnic origins, but most non-Chinese activists were bandits rather than terrorists. The Chinese population was the subject of a struggle between the party and the Kuo Min Tang (KMT) with its roots in Nationalist China. [Short, *The Communist Insurrection*, pp. 208–221.]

599 The British faced a grave shortage of Chinese-speaking officers to deal with an essentially Chinese-rooted insurgency. [Brian Stewart, 'Winning in Malaya: An Intelligence Success Story', *Intelligence and National Security* 14, 1999, pp. 267–283.] Stewart provided an interesting account of the work of the Chinese Affairs Department in increasing the flow of anti-MRLA intelligence.

600 However, Chin, *My Side of History*, pp. 321–322, recounts one extremely successful attack on his headquarters by the RAAF bombers in March 1953.

601 UKNA CO1022/250 – Cooperation Between Singapore and the Federation of Malaya in Dealing with Communist Terrorists. The MRLA chain of command in 1951 showed the Third, Fourth and Ninth Regiments, estimated to number 900 CTs in Johore. [ED Smith, *Counter Insurgency Operations: Malaya and Borneo*, Ian Allen, London, 1985, p. 20.]

602 RW Komer, *The Malayan Emergency in Retrospect: Organisation of a Successful Counterinsurgency Effort,* Rand Corporation, Santa Monica, Ca, 1972, pp. 41–45.

603 NAA A5954/69, Item 2292/4 – Malaya 1949–Nov 1952 File 3, 'The Police of Malaya', dated 26 May 1952.

604 Thomas, 'British Signals Intelligence', p. 70, claimed that the RN had a destroyer stationed off Malaya on Sigint collection duties in the late 1940s. Evidence presented to the Mohr Review by the Australian Defence Signals Directorate in 1999 confirmed that monitoring from warships was conducted. [Department of Veterans' Affairs, *Review of Service Entitlement Anomalies in Respect of South-East Asian Service*, Commonwealth of Australia, Canberra, 2000, p. 3–16.] These may have been exploratory missions to determine whether the MRLA was using radio communications, but it is not clear why a warships should have been used in this role, when land based intercept systems were available.

605 Chin, *My Side of History*, p. 271, related that the logistics problem for the CTs was daunting. In the latter stages of the fighting, it was government food-control measures that had most effect on CT morale and cohesion, and this led many to surrender. It also demonstrated to the population whose food was being controlled the penalties of supporting the MRLA. [Short, *The Communist Insurrection*, pp. 483–485.]

606 Smith, *Counter Insurgency*, p. 34. The CTs were active again in a minor way during Confrontation.

607 Short, *The Communist Insurrection*, p. 136.

608 NAA A5954/69, Item 2296/4 – Aid For Malaya, File 2: Report by Military Mission, p. 12.

609 Karl Hack, 'Corpses, Prisoners of War and Captured Documents: British and Communist Narratives of the Malayan Emergency, and the Dynamics of Intelligence Transformation', in Richard Aldrich, Gary Rawnsley, & Ming-Yeh Rawnsley (eds), C*landestine Cold War in Asia, 1945–65: Western Intelligence, Propaganda, Security and Special Operations*, Frank Cass,

London, 2000, p. 226. Statement attributed to Chin at a workshop held at the Australian National University, Canberra on 22 and 23 February 1999.

610 Donald Mackay, *The Malayan Emergency 1948–60: The Domino That Stood*, Brassey's, London, 1997, p. 106.

611 Smith, *Counter Insurgency*, p. 35.

612 Chin, *My Side of History*, pp. 351 and 327.

613 NAA A816, Item 6/301/650 – Report on Malaya by Australian Military Mission to Malaya July–August 1950 of 11 September 1950, p. 46.

614 NAA MP1185/10, Item 5219/53/4 – Urgent Military Preparations Required in Malaya.

615 NAA A2031, Item Vol. 33 – Defence Committee Original Minutes 176–273, Minute 20/50 of 16 October 1950.

616 NAA MP1185/10, Item 5245/22/10 – Strategic Reserve – Programme of Action, Secretary of Defence letter unnumbered of 8 June 1955 to the Secretary of the Navy.

617 NAA A2031/8, Item 4/1956 – ANZAM Defence Committee Memorandum 4/1956.

618 NAA A816/56, Item 19/321/3Y – FESR Directives to HMA Ships, 1956.

619 UKNA ADM 1/23646 – HMS *Alacrity* Report of Proceedings Period 26 April–8 May 1952.

620 A Ministry of Defence Minute of 13 November 1951 noted that one frigate, six minesweepers and two motor launches were engaged, with additional forces being raised by the Malayan Government. The estimated annual cost of the operations was £600,000. [UKNA DEFE 7/240–Malaya: Defence Expenditure.]

621 AWM78, Item 34/4 – HMAS *Anzac* Reports of Proceedings 1956, September 1956.

622 AWM78, Item 298/5 – HMAS *Queenborough* Reports of Proceedings 1956–57, January 1957.

623 Short, *The Communist Insurrection*, pp. 371–372. Grove noted that this activity was 'fairly constant' but agreed with Short that many of the missions were in the nature of harassment. [Eric J Grove, *Vanguard to Trident: British Naval Policy Since World War II*, The Bodley Head, London, 1987, pp. 150–151.]

624 Other forces involved included three infantry battalions, seven special units (jungle-trained police patrols) and a force of ex-CTs. The operation was successful, not so much in killing CTs but in breaking their morale and persuading them to surrender. [Short, *The Communist Insurrection*, pp. 489–492.]

625 Photo reconnaissance was also useful in spotting areas of food cultivation in the jungle. [Karl Hack, 'British Intelligence and Counter-Insurgency in the Era of Decolonisation: The Example of Malaya', *Intelligence and National Security* 14, 1999, pp. 124–155, p. 148 & footnote 23.]

626 UKNA CO 1022/317 – Supply of Arms to Bandits in Malaya, Abstract of Intelligence 16–31 October 1951.

627 The *Attack* class patrol boat project was not commenced until September 1965, its genesis, apparently, was experience gained in Confrontation, rather than the Malayan Emergency. [Stevens, *Royal Australian Navy*, pp. 199–201.]

628 NAA A1209/23, Item 1957/4152 – Strategic basis of Australian defence policy 1953, Defence Committee Minute 368/1952 of 8 January 53. 'Indo-China is the key to the defence of South East Asia as it provides defence in depth of Australia and New Zealand'. [paragraph 35.] 'Allied military measures in South East Asia should be based on coordinated agreed regional policy'. [paragraph 44.] 'Australia is Safe Unless Malaya Falls'. [paragraph 45.] Almost

three years later, the Australian position had strengthened and was expressed as follows: 'Effective coordination with United States strategic planning, and assurance of necessary support from United States forces, are ultimately essential, before firm commitments can be accepted involving the use of Australian forces, either for the defence of Malaya, or for the wider purpose of collective action under the Manila Treaty'. [NAA A462, Item 439/1/23 part 4 – Defence: British Commonwealth Defence Cooperation and Planning, minute from Secretary Department of Defence to Secretary Prime Minister's Department of 18 November 1955.]

629 David Lee, 'Britain and Australia's Defence Policy, 1945–1949', *War and Society* 13, 1995, p. 70.

630 Derek McDougall, 'The Malayan Emergency and Confrontation', in Carl Bridge (ed) *Munich to Vietnam: Australia's Relations with Britain and the US Since the 1930s*, Melbourne University Press, Melbourne, 1991, pp. 135–136.

631 By September President Sukarno was claiming that Indonesia would 'crush' Malaysia. [JAC Mackie, *Konfrontasi: the Indonesian-Malaysia Dispute 1963–66*, Oxford University Press, Kuala Lumpur, 1974, p. 200.]

632 Interview by the author of Commodore JA Robertson, RAN, (Rtd), former leader of CinCFE Joint Planning Staff Team A–6 August 2002, hereafter the 'Robertson interview'.

633 AWM121, Item 408/A/1 – ANZAM Defence Committee: Intelligence, Annex A to JIC Report no. 4/1964, December 1964.

634 As Joint Planning Committee Report 35/64 of 16 March 1964 explained, the RAN was only able to respond to the Malaysian request with two vice four minesweepers because of manpower constraints, maintenance difficulties and concern for the dilution of RAN minesweeping capabilities. [AWM269, Item B/3/1/3/1 – Defence Committee Minutes and Defence Committee Agenda 1964: Indonesia.]

635 O'Neill, *Strategy and Diplomacy,* pp. 228–229. The Tripartite Conferences were established in May 1951 by the United Kingdom, France and the United States to discuss the problems of communism in Southeast Asia. The participants in the Five Power conferences were ANZUS partners plus France and the United Kingdom. [Grove, 'British and Australian Naval Policy, p. 265.] By 1953 the conferences had produced a summary of force requirements for the defence of Malaya against Communist attack. [NAA A1209/23, Item 1957/4686 – Defence of Malaya: Force Requirements.]

636 JIB reported that it had achieved 'collection of material only, on Malaya and Indonesia. [NAA A5954/69, Item 1671/21 – Conference of Defence Ministers, June 1951.]

637 NAA A5954/69, Item 1671/21 – Conference of Defence Ministers, June 1951. DSB and the associated service intercept units had strengths of 249 and 179 respectively. These figures do not match those provided by the agencies themselves in NAA A816/1, Item 41/301/170 – Staffing JIB and DSB, 'JIB and DSB Review of Staffing' of 4 September 1951. JIB had only 91 of 115 established positions filled and the situation at DSB was 124 filled out of 160. The review was produced to bolster the case for accelerated recruitment before the Public Service Board.

638 NAA A1838/269, Item TS666/57/8 – JIC (M) 8 – Australian Intelligence Organisations. JIC minute 180 of 11 July 1957 noted that the language school had been most effective in training Mandarin Chinese translators. This statement, apparently, supports the view expressed in Chapter 5 that Australia had a role in monitoring Chinese communications during and after the Korean War.

639  NAA A8580/1, Item Z1/11 – JIO report to PM on JIB and DSD (1955), Letter X8/35 Undated from Minister for Defence to Prime Minister.

640  Horner, *Defence Supremo*, pp. 295–296 and 308–309, and Brian Toohey & William Pinwill, *Oyster: The Story of the Australian Secret Intelligence Service*, William Heinemann Australia, Melbourne, 1989, p. 30.

641  AWM121, Item211/A/1 – Defence of Malaya, Defence Committee meeting 11 February 1954, liaison visits between JIC (FE) and JIC (M).

642  In Australia, the Defence Committee endorsed the JIC (M) (56) 35 paper titled 'Intelligence Aspects of the Srategic Basis of Australian DefencePlanning' on 26 September 1956. The paper placed heavy emphasis on the threat to Australian security from the Sino-Soviet bloc. Interestingly, the committee directed that the paper was not to be distributed overseas. [NAA A2031/9, Item 208/1956–Intelligence aspects of the strategic basis of Australian defence policy.]

643  NAA A2031/9, Item 54/1959 – Priorities of Countries for Production of Australian Intelligence Surveys Part 1, Defence Committee meeting of 2 July 1959. ASIS had opened an office in Jakarta in September 1954 and its strength was increased to four in 1962. [Toohey & Pinwill, *Oyster*, p. 91.]

644  NAA A1838/269, Item TS663/4/11 Part 1 – Australian Defence Organisation – Intelligence: JIC Australia Intelligence Targets and PPriorities, JIC Report 21/61.

645  NAA A8580/1, Item Z1/11 – JIO Report to PM on JIB and DSD (1955), letter X8/35 undated from Minister for Defence to Prime Minister.

646  Robertson interview, and interview of Commander Nicholls by the author, 11 February 2003, henceforward the 'Nicholls interview'. Bailey gave an account of the 'bugging' of the Indonesian Embassy in London as the basis of the penetration of Indonesian diplomatic traffic. [Mark Bailey, *Aspects of the Australian Army Intelligence System During Confrontation and the Vietnam War*, Australian Defence Studies Centre, Canberra, 1994, p. 11.]

647  Robertson interview.

648  JIC (A) submitted a report (17/1961) on 20 September 1961 on Indonesia's arms acquisitions. This was accompanied by a technical intelligence report 'Technical capability of the Indonesian armed forces', in which the difficulties faced by Jakarta in terms of its readiness and technical standards was revealed [NAA A1838/269, Item TS690/2/2 Part 1 – JIC (A) Report on Acquisition of Armament by Indonesia.]

649  In 1962 Indonesia claimed a 12-mile territorial sea drawn from base lines connecting the outermost points of its claimed territory. A second claim was that the Java, Banda and Molucca seas were now Indonesian internal waters. These were disputed by the Commonwealth as being contrary to international law, but ships were directed to stay clear of Indonesian-claimed waters as far as possible. [UKNA DEFE 7/1560 – Malaysian Naval Operations and Overflights, 1963.]

650  'We have no evidence that the Indonesians have pressure mines. Furthermore, they have so far shown little interest in mine warfare. However, so long as the Russian naval influence prevails we should assume a small mining threat'. [UKNA ADM 1/29144 – Reinforcement for the Far East Fleet in General and Limited War, Flag Officer-in-Charge Far East Fleet Letter FEF 32 OPS 2 of 10 October 1963 to Vice CNS.]

651  The Indonesian Navy order of battle in 1963 is shown in Grey, *Up Top*, p. 44, Table 3.1. According to the Indonesians in 1961, the purchases from the USSR were in preparation for a war. [Norman Harper, *A Great and Powerful Friend: A Study of Australian American Relations*

*Between 1900 and 1975*, University of Queensland Press, St Lucia, Qld, 1987, p. 301.] The war in the offing at that stage was the dislodgment of the Dutch from West New Guinea.

652 Bailey, *Aspects*, pp. 9–11.

653 GStJ Barclay, 'In the Sticky Fly Paper: The United States, Australia and Indonesia 1959–1964', *Naval War College Review* 34, 1975, pp. 67-80, quote from p. 73.

654 The occupant of the post had to be a British officer, since he would be receiving Sigint that could not be shown to Malaysians. [UKNA DEFE 7/2221 – Malaysia: Organisation for Control of Operations, COSC DP 104/63 (final) of 18 October 1963.]

655 Robertson interview.

656 AWM121, Item 4/7 – Operations Borneo/Malaysia, COMFEF Message DTG 111439Z Sep 64.

657 Three PR Canberra aircraft were available in the theatre, and occasional overflights over the Riau Archipelago and the islands off North Sumatra were authorised by CinCFE. [UKNA DEFE 25/170 – Indonesian Confrontation, Vice Chief of Air Staff Letter VCAS.5448 of 8 October 1965.]

658 NAA A1945/40, Item 248/1/14 – CinCFE Meetings.

659 This strategy was almost ruinous financially and militarily to the UK. 'I think we were all set to lose Confrontation, because it was costing the Brits an arm and a leg'. [Robertson interview.]

660 NAA A1945/39, Item 71/1/120 – Record of Conversation Between CinCFE Sir Varyl Begg and Sir Arthur Tange, 21 October 1964.

661 NAA A1945/40, Item 162/3/42 – Employment of RAN Ships in Borneo Waters.

662 Royal United Services Institution of New South Wales, '*Konfrontasi' – Indonesian Confrontation of Malaysia, 1963–1966, Seminar 12 April 1994*, Royal United Services Institute, Sydney,1994, p. 1963-3.

663 Harold James, & Denis Sheil-Small, *The Undeclared War: The Story of Indonesian Confrontation 1962–1966*, Leo Cooper, London, 1971, pp. 93–97.

664 Central Intelligence Agency Records Search Tool, CIA-RDP79100472A000600060005-5, Office of Current Intelligence Letter OCI 2958/65 of 22 December 1965. The Macapagal administration downgraded its embassy in Kuala Lumpur to consulate status in September 1963. This CIA report indicated that, despite the continuing claim to Sabah, the succeeding Marcos administration wanted to 'normalise' relations.

665 Central Intelligence Agency Records Search Tool, CIA-RDP80B01500R000100040014-5, memorandum for Mr Carver, 1 August 1974. As late as 1974 the CIA regarded the Sabah dispute as a possible casus belli in Southeast Asia.

666 John Foster, '*Hands to Boarding Stations!' The Story of Minesweeper HMAS* Hawk, Australian Military History Publications, Loftus, NSW, 2003, p.56, and AWM78, Item 374/5 – HMAS *Yarra* report of proceedings, July 1965.

667 HMA ships were given special approval to return fire directed at themselves or at other ships in Malaysian waters only in the vicinity of Tawau. [NAA A1813, Item 1605/201/19 – Borneo Operations: Employment of RAN Ships of the Strategic Reserve, ACNB message 27 January 1965.] In April 1966 HMAS *Hawk* exercised that right in response to Indonesian harassment of boat traffic by mortars. [AWM78, Item 136/3 – HMAS *Hawk* Report of Proceedings, April 1966.]

668 A good impression of the nature of patrol duties in Tawau can be found in NAA A1945/42, Item 162/3/46 – HMA Ships Reports of Proceedings, Enclosure (2) to HMAS *Ibis* Letter I.PR of 10 November 1964.

669 AWM78, Item 315/2 – HMAS *Snipe* Reports of Proceedings 1964–1965, September 1964.

670 AWM78, Item 374/5 – HMAS *Yarra* Report of Proceedings, June 1965.

671 NAA A1945/42, Item 244/3/76 - Shelling of HMAS *Hawk* by Indonesian Shore Batteries, COMFEF Message DTG 140224Z MAR 66 and DOBOPS Message DTG 111222Z Apr 66.

672 'The entire month, despite numerous intelligence reports to the contrary, was quiet, there being no incursions or maritime incidents during the period'. [AWM78, Item 96/1 – HMAS *Curlew* reports of proceedings August 1962–December 1965, November 1965.]

673 AWM78, Item 374/5 – HMAS *Yarra* Report of Proceedings, June 1965.

674 Smith, *Counter Insurgency*, pp. 64–67.

675 There were apocryphal stories of British helicopters landing cargo nets full of Indonesian heads at Kuching airport, tokens for which the headhunting Ibans and Dyaks could claim their bounty money. The British were said to have later substituted a set of ears as the qualifying token.

676 Grey, *Up Top*, p.59. A fuller explanation of what the Sarawak patrols entailed is found in NAA A1945/42, Item 162/3/46 – HMA Ships Reports of Proceedings, Enclosure (2) to HMAS *Ibis* Letter I.PR of 10 November 1964.

677 It was a situation to which could be applied the following observation by Sydney Waters. [Sydney Waters, *The Royal New Zealand Navy*, Department of Internal Affairs, Wellington, NZ, 1956, p. 21]: 'Thus was exemplified the truth of the old saying that nine-tenths of naval warfare is made up of the continuous drudgery and monotony of patrols and the search for enemy ships, which are not there but would be if the patrols were not'.

678 These reports and summaries were also distributed to Australia. They form much of the basis of the JIC (A) Note 1/1964 of 27 April 1964 'The situation in the Borneo Territories', which was produced in support of the recommendation that Australia respond positively to the Malaysian request for assistance. [NAA A1945/43, Item 245/3/11 – Commonwealth Military Assistance to the Defence of Malaysia: file 5.]

679 Smith, *Counter Insurgency*, p. 92. There do not appear to be any reports of further attempts at infiltration, but the possibility cannot be ruled out.

680 A number of the infiltrators and saboteurs were subsequently captured, but the Indonesian Ambassador to the United Nations admitted to the Security Council in September 1964 that infiltration of Indonesian 'volunteers' had been going on ' for some time'. [RUSI *Konfrontasi*, p. 1964–68.]

681 UKNA DEFE 48/167 – Maritime patrols, comprises an operational analysis of the effectiveness of patrolling in the Singapore Strait.

682 Foster, *'Hands to Boarding Stations'*, pp. 21–24. The omission of these Items from early deployments represents a failure of intelligence, and imagination.

683 Commander AK Wait, RAN, (Rtd), interviewed by author 3 December 2002, hereafter the 'Wait interview'.

684 AWM78, Item 136/3 – HMAS *Hawk* Reports of Proceedings 1966–1967, March 1966 and Foster, *'Hands to Boarding Stations'*, pp. 7–8.

685 AWM78, Item 339/1 – HMAS *Teal* Report of Proceedings, December 1964.

686  NAA A1813T19, Item 1623/202/28 – Incursion into Indonesian Waters by HMAS TEAL, Australian High Commission Singapore Letter 820/1 of 14 December 1964.

687  It was not the last exploit by *Teal*. On the night of 23–24 February 1965 she captured a boatload of nine armed infiltrators in the Malacca Strait. In all, this one ship accounted for 22 infiltrators. [Wait interview.]

688  NAA A1945/40, Item 245/3/9 – Australian Forces for Defence of Malaysia, Defence Cabinet Submission 126 of 8 April 1964. Commonwealth naval forces were at a high state of alert for attacks on ships by underwater swimmers. One such suspected attack in Singapore Naval Dockyard was foiled on 4 June 1965. [AWM78, Item 374/5 – HMAS *Yarra* Reports of Proceedings 1964–1965.]

689  AWM121, Item 408/A/1 – ANZAM Defence Committee: Intelligence. The high command was responding to intelligence like that contained in JIC (FE) report 4/1964 of 18 December 1964, which stated that 'Indonesian and Indonesian-inspired seaborne and possibly airborne infiltrations will continue'.

690  UKNA DEFE 48/167 – Maritime Patrols.

691  Intelligence on a possible incursion across the strait and an Australian frigate's operational deployment resulting from it are described in NAA A1945/42, Item 162/3/46 – HMA Ships Reports of Proceedings, HMAS *Yarra* Report of Proceedings, April 1964, p. 2–3.

692  Commonwealth intelligence had identified up to 6000 ALRI Marines in the Riau Archipelago and had begun to develop a contingency plan to deal with the anticipated seaborne assault on Singapore. [Robertson interview.]

693  Robertson interview.

694  NAA A1945/41, Item 146/1/16 – Indonesian Military Capability, Annex A to CinCFE 88/64, 'The internal security threat to Malaya and Singapore from Indonesia'.

695  UKNA DEFE 24/98 – Report on Naval Operations in East and West Malaysia, 1964–1966, COMFEF letter 1763.FEF.143/12 OPS of 23 November 1966.

696  UKNA DEFE 24/98 – Report on Naval Operations in East and West Malaysia, 1964–1966, COMFEF Letter 1763.FEF.143/12 OPS of 23 November 1966.

697  Between April and June 1964, Malaysian and British Special Forces carried out clandestine raids against Indonesian bases on islands in the strait. [Grey, *Up Top*, p. 58.]

698  RUSI, *Konfrontasi*, p. 1964-6.

699  Patrol aircraft from Changi in Singapore were normally available for five flights per week. These were supplemented by five flights by the Royal Malaysian Air Force per month for beach reconnaissance or as required. [UKNA DEFE 24/98 – Report on Naval Operations in East and West Malaysia, 1964–1966, enclosure to DS 5/31/19/15/A, Naval Operations in Malacca and Singapore Straits, 1964–1966.]

700  Photo reconnaissance was ruled out as a source except for 'occasional' missions, as CinCFE believed overflights of Indonesian territory would be 'provocative. [Robertson interview.]

701  The 'network' included a number of radars borrowed from the Army and the air defence radars of RAF airfields at Butterworth and Singapore. [UKNA DEFE 11/777 – Western Malaysia: 11 to 31 August 1965, COSC Minute COS 144/65 of 13 August 1965: Provision of Radar Coverage.]

702  Smith, *Counter Insurgency*, pp. 85–86.

703  During one patrol in April 1965, the frigate *Yarra* had 182 fishing boat contacts alone on her surface plot. [AWM78, Item 374/5–HMAS *Yarra* Report of Proceedings, April 1965.]

704 Later in the campaign more Malay policemen with a sufficient command of English were deployed in other units of the security force, down to and including minesweepers. [Foster, *'Hands to Boarding Stations'*, p.27.]

705 The onus was on the warship to keep clear of merchant shipping while not trespassing into Indonesian-claimed waters. This was not a problem for the warship as the merchant ships were fully lit, but it was an issue for the merchant skippers, or at least those who kept a proper lookout and detected darkened shapes weaving in and out of the traffic lanes, and who might be tempted to manoeuvre around them. [AWM78, Item 102/1 – HMAS *Duchess* Report of Proceedings, February 1965.]

706 JL Moulton, 'The Indonesian Confrontation', *US Naval Institute Naval Review,* 1969, pp. 144–171, quote from pp. 161–162.

707 'I can remember being really impressed by that, because I'd actually seen someone apply mathematics'. [Wait interview.]

708 'The assessment that infiltration was expected proved remarkably correct for on 23 February *Teal* detected an unlit vessel nine miles southeast of Cape Rechardo'. [AWM78, Item 339/1 – HMAS *Teal* Reports of Proceedings 1962–1965 Part 2, February 1965.]

709 AWM78, Item 102/1 – HMAS *Duchess* Reports of Proceedings 1965, February 1965.

710 Other RAN officers served as the commanders of the Royal Malaysian Navy, in senior staff positions in that navy and as commanding officers of Malaysian warships. Indeed, the newly independent RMN was first led by Admiral (at the time Captain) Anthony Synnot, RAN.

## Propping up a Domino: Vietnam 1967–71

711 Gregory Pemberton, *All the Way: Australia's Road to Vietnam*, Allen & Unwin, Sydney, 1987, p. 66.

712 David Lee, 'Australia and Allied Strategy in the Far East, 1952–1957', *Journal of Strategic Studies* 16, 1993, pp. 511–538, pp. 520–522. Australia pressed hard for SEATO to be a proper alliance, with serious planning for contingencies undertaken by a coalition staff.

713 AWM269, Item B/1/1 – Defence Plans General, contains two lists of defence contingency plans, one dated October 1959 and the other from 1962. In the first there were five SEATO plans, while the ANZAM plans are relatively undeveloped, and two have been 'overtaken by SEATO planning'. In the second are eight SEATO plans and only three in the ANZAM section, all related to SEATO planning.

714 Lee, 'Allied Strategy', pp. 530–533.

715 Pragmatically, the JIC suggested that neither Malaya, Singapore nor Indonesia would wish to provide any support to military operations in Southeast Asia. [NAA A1945/27, Item 66/1/3 – COSC agendum 19/1961: The Threat to Australia's Lines of Communications to South East Asia in Limited War up to the End of 1966.] Interestingly, the views of the Western analysts on the likely advance of communism were shared by the CCP leadership, including Deng Xiaoping. [Chin, *My Side of History*, pp.428–429.]

716 Edwards, *Crises and Commitments*, pp. 212–219.

717 Ironically, that request never came. [Australian Government, *Australia's Military Commitment to Vietnam*, paper tabled in accordance with the Prime Minister's statement in the House of Representatives, 13 May 1975, p. 8.]

718 NAA A4940/1, Item C3640 – Strategic Basis of Australian Defence Policy, 25 January 1962.

719  Mike Fogarty, 'Showing the Flag: Naval Diplomacy to Saigon, 1956–63', *Journal of Australian Naval History* 4:1, 2007,: pp. 42–67, p. 42.

720  NAA A1813T19, Item 42/222/81 – Vietnam Mine Warfare – Intelligence General, DNI Minute of 15 May 1964.

721  TB Millar, 'Vietnam', in Carl Bridge (ed), *Munich to Vietnam: Australia's Relations with Britain and the United States Since the 1930s*, Melbourne University Press, Melbourne, 1991, pp. 175–176.

722  AWM 121, Item 161/G/2 – South Vietnam: Australian Contributions, Cabinet Submission 441 of 24 August 1967 by Minister for Defence.

723  Pemberton, *All the Way,* pp. 21–22. The damage to US security interests in Asia which would be occasioned by the unhindered advance of communism were recorded in a National Security Council Paper (NSC 124/2) approved by the President on 25 June 1952.

724  Edward J Marolda & Oscar P Fitzgerald, *The United States Navy and the Vietnam Conflict, Vol. II: From Military Assistance to Combat 1959–1965*, Naval Historical Center, Washington, DC, 1986, pp. 42–43, & 283.

725  Marolda & Fitzgerald, *Vietnam Conflict*, pp.184–185 & 391.

726  Pfennigwerth, *Tiger Territory: The Untold Story of the Royal Australian Navy in Southeast Asia from 1948 to 1971*, Rosenberg Publishing, Kenthurst, NSW, 2008.

727  NAA1945/42, Item 143/1/16 – Summary of JIC Intelligence Assessments Affecting Australian Defence Policy, JIC (AUST) (60) 5, of 30 March 1960. 'Viet Minh attack against South Vietnam is unlikely' because they would need to be assured of 'overt Chinese intervention if this became necessary'.

728  Toohey & Pinwill, *Oyster*, p. 91. The Phnom Penh office opened in February 1965.

729  Lieutenant Commander Cumming was the first RAN officer to undertake this task and rendered an interesting and up-beat report on his experiences and observations. Unfortunately, the appendix containing his notes on the Vietnamese Navy has disappeared and cannot be found. [NAA A1945, Item 244/3/40 – Visit of HMA ships to Vietnam, Lieutenant Commander Cumming letter of 14 January 1963.]

730  NAA A1838T19, Item 42/222/81 – Vietnam Mine Warfare–Intelligence General, DNI Minute of 15 May 1964–Lieutenant Commander DW Falconer, RAN–Report on Visit to South Vietnam 20–28 March 1964.

731  NAA A1813T19, Item 42/222/81 - Vietnam Mine Warfare–Intelligence general, DNI minute of 18 September 1963.

732  BDM Corporation, *A Study of Strategic Lessons Learned in Vietnam Vol. VI: Conduct of the War Book 1: Operational Analyses*, Defense Logistics Agency, Alexandria, Va, 1984, especially Chapter 9, Intelligence.

733  Marolda & Fitzgerald, *Vietnam Conflict*, p. 223.

734  Bailey, *Australian Army Intelligence System*, pp. 16–17, provided statistics on the size and complexity of the US intelligence collection and dissemination system in Vietnam.

735  Commander IM Hall, RAN, (Rtd), correspondence with the author, 19 June 2003.

736  NHC, 7th Fleet Command History 1964–1965, Command file post 1 Jan 46, fleets, box 713: C7F letter FF/7/FDH:sy–5750 ser: 002-0024 of 31 Jan 67, Conclusions and Recommendations: Intelligence: 'During 1966, operating forces under Commander 7th Fleet continued an intensive intelligence reconnaissance program … As a result, significant success was achieved in accomplishing both special and routine intelligence

requirements issued by higher authority, as well as those requirements directly supporting TF 77 units engaged in the Vietnamese war. Continued improvement was noted in the most critical area of providing timely warning of north Vietnamese surface to air missile launches and MiG fighter approaches by electronic warfare aircraft'.

737 DP Fairfax, *Royal Australian Navy in Vietnam,* Australian Government Publishing Service, Canberra, 1980, p. 45.

738 One such occasion was on 3 December 1970, when *Perth* provided NGS for an operation against VC positions near An Xuyen, in U Minh province, the assault force being delivered by the 135th AHC. David Rickard, *Australia's Navy – The First 100 Years: A 365-day Almanac of Notable Events*, self-published, Adelaide, 2005, p. 84.

739 David Horner, *Australian Higher Command in the Vietnam War*, Australian National University, Canberra, 1986, appendix A–Directive by the Chiefs of Staff Committee to Commander Australian Force Vietnam.

740 The first RAN unit to Vietnam was HMAS *Sydney* with a first trooping voyage to Vung Tau in June 1965. The author accepts this was operational service, but it was not operational service in Vietnam for the purpose of this monograph.

741 Interview of Commander MTE Shotter RAN (Rtd) by SC Pfennigwerth, 3 March 2003 – hereafter the 'Shotter interview'. This broad pattern of training was continued for each rotation's deployment to Vietnam, although additions were recommended but apparently not acted upon. Additional elements included engineer training with the Australian Army at Casula, NSW. [AWM78, Item 392/1 – CDT 3 Report of Proceedings, October 1967.] The RAN did not agree to a USN recommendation that the team undertake a two-week EOD course in Hawaii before deploying.

742 CDT 3 members evinced some scepticism about the veracity of the situation as described in US intelligence briefings. 'This is the way it is – the way we see it, and this is the way we want you to see it'. [Shotter interview.]

743 NHC Inshore Undersea Warfare Group 1 – Westpac Det Command History 1967, Command File Post 1 Jan 46, Type Commands – Inshore Warfare. IUWG-1 (WPAC) letter 5750, ser: 003 of 29 February 1968.

744 [AWM269, Item 161/C/1 – Directives Vietnam: directive to Officer-in-Charge Clearance Diving team–Vietnam dated 22 February 1967.] As far as can be ascertained, the prohibition on participation in SEAL operations was based on an apprehension that CDT 3 might be involved in silent killings and political assassinations. [Shotter interview.] While most of the work undertaken by CDT 3 in support of the SEALs was of an EOD nature, at least one officer did participate in a cross-DMZ punitive expedition with the SEALs. [Linton interview.]

745 NHC, Commander Coastal Forces Vietnam, Oporder 302-67: STABLE DOOR.

746 NHC, Commander Coastal Surveillance Force Vietnam, Oporder 302-67: STABLE DOOR

747 The VC unit conducting this anti-shipping campaign was Group Ten, which included a special engineer swimmer company. [Rex McAulay, *In the Ocean's Dark Embrace: RAN Clearance Diving Team 3, Vietnam 1967–71,* Banner Books, , Maryborough, Qld, 1997, pp. 31–32.]

748 NHC, VNCF box 136, NFV Staff Study Countering the Swimmer/Sapper, Jan 70.

749 'If we couldn't do it. [bottom searches of ships] then we reckoned that, apart from some really wiry Vietnamese, they couldn't do it. [attach explosive charges.] So we just swam until we couldn't do it any longer'. [Shotter interview.]

750 CDT 3 briefed harbour patrol teams on the correct methods of searching junks and on *Viet-Cong* bobby traps. [AWM78, Item 392/1 – CDT 3 Report of Proceedings, August 1967.]

751 NHC Commander Coastal Surveillance Force Vietnam Oporder 302-67 STABLE DOOR, Appendix II to Annex G.

752 Defence of HMA Ships against swimmer attack was a skill well practised in the RAN under the title Operation AWKWARD long before Vietnam. However, COMNAVFORV did not commission the preparation of a similar doctrine, entitled 'Operational Handbook for Swimmer Defense', until late 1968.

753 AWM78, Item 392/1 – CDT 3 Report of Proceedings, August 1967. CDT 3 amassed a considerable collection of VC explosive devices and booby traps, which were rendered inert and used in a display. Several Items were returned to Australia for the training of succeeding EOD team rotations. [Shotter interview.] As well, successive teams added to handover notes for the benefit of their replacements. Finally, team changeovers took place over the course of a week to ten days during which the newcomers were shown the ropes by the departing team.

754 AWM78, Item 392/2 – CDT 3 Report of Proceedings, January 1969.

755 This instruction issued by CTG 115.9 on 20 January 1969 was later changed to encompass the hours either side of slack water, recognising the weight of the EOD experience. [Grey, *Up Top,* p. 303.]

756 The Junk Force originated as a paramilitary organisation, largely funded by the USN but crewed by a mixture of RVN Navy and 'irregular' personnel. It became a formal part of the RVN Navy in 1965. [Marolda & Fitzgerald, *Vietnam Conflict,* pp. 158–160.]

757 NHC, Commander Coastal Surveillance Force Vietnam Oporder 201-67 MARKET TIME, Annex G, Appendices IV and VI. 'All units will continue to receive intelligence normally provided to them by CNO. [Chief of Naval Operations], CINCPACFLT and type commanders as appropriate. COMUSMACV will continue to provide basic intelligence, OOB and various other intelligence studies which will be disseminated by COMCOSURVFOR as appropriate'. Units' attention was also directed towards further intelligence reporting, including the COMUSMACV intelligence estimate of the situation, COMUSMACV Viet Cong OOB, CINCPACFLT intelligence summaries, COMUSMACV intelligence summaries, COMNAVFORV intelligence summaries, COMUSMACV daily situation reports and COMUSMACV weekly military reports.

758 AWM78, Item 392/1 – CDT 3 report of proceedings, March 1968.

759 AWM78, Item 392/1 – CDT 3 report of proceedings, August 1967, Commander Southern Surveillance Group letter CSSG/WCNJH 1600, Ser: 174 of 15 August 1967.

760 On at least one occasion munitions declared 'unsafe for combat use' were found to be perfectly sound, their demolition being required to correct an accounting error. [AWM78, Item 392/1 – CDT 3 Report of Proceedings, October 1967.]

761 AWM78, Item 392/3 – CDT 3 Report of Proceedings, April 1970.

762 AWM78, Item 392/1 – CDT 3 Report ofProceedings, September 1967.

763 In August 1968 COMNAVFORV intelligence staff released a report on water mines recovered by Allied forces during the year. There was a perceptible shift from the command-detonated, swimmer-placed or drifting mines, towards more sophisticated limpet and influence mines, a considerably more difficult problem for the defenders. [McAulay, *In the Ocean's Dark Embrace,* p. 96.]

764 'We used to get an EOD bulletin, I think about once a month … That was an upgrade of all the EOD publications, which had had all the NOFORN information culled from it'. [Linton interview.] It is not easy in an organisation as large and complex as the US Department of

Defense to establish why a particular device or piece of information is classified NOFORN. It takes even longer to find the committee with the authority to change the decision and to convince it to do so.

765 Shotter interview. The required material was left on the desk of a USN officer, who absented himself 'on other duties' while the CDT 3 member was left in the room.

766 McAulay, *In the Ocean's Dark Embrace*, pp. 140–142.

767 At the end of October 1968 the team was called upon to assist in the salvage of a 'monitor' which had been sunk near Binh Long in the Delta. The task was accomplished in two days in water of zero visibility, while USN gunboats and Viet-Cong units in the vicinity exchanged gunfire. [AWM78, Item 392/1–CDT 3 report of proceedings, October 1968.]

768 William B Fulton, *Vietnam Studies: Riverine Operations 1966–1969*, Department of the Army, Washington, DC, 1985, pp 34–35.

769 Here is a clear example of history repeating itself. This was a lesson learned in the campaigns of the SWPA and other theatres during WWII, only to be forgotten and relearned more than 20 years later. [Fulton, *Riverine Operations*, pp. 65–66.]

770 The best accounts of these operations are to be found in the 'CDT 3 daily log 1970–71', which is retained with other records in the RAN Diving School Museum at HMAS *Penguin*, Sydney.

771 McAulay, *In the Ocean's Dark Embrace*, pp. 80 & 103–104.

772 The Vietnamese teams were noted for a high level of unexplained absenteeism. Commander Linton expressed his opinion in the following way: 'If I'd been at war in this country all my life and I'd been paid [by] the ARVN at one time and the Viet Cong another time … what's your incentive to be red white and navy blue about anything?'[Linton interview.]

773 Linton interview.

774 Material was sent to Australia regularly. [Shotter interview.] However, the author has been unable to locate any of these reports in official archives.

775 'Nobody did a debriefing and … I kept the information in my head, I suppose, and so did the rest of us'. [Shotter interview.]

776 Commander IM Hall, RAN, (Rtd), correspondence with author, 19 June 2003.

777 NAA A2031/9, Item 45/1962 – Proposed Australian Assistance to South Vietnam. This was the same meeting at which the decision on sending the Australian Army Training Team was made.

778 However, this problem was tackled and solved for the deployment of HMAS *Vendetta* to Vietnam from September 1969 to March 1970. [Grey, *Up Top*, pp. 206–208.]

779 AWM269, Item 161/C/1 – South Vietnam: Directives. CNS directive to the captains of HMA ships serving in Vietnam waters, dated 2 March 1967.

780 US Grant Sharp, *Report on the War in Vietnam (as of 30 June 1968): Section 1– Report on Air and Naval Campaigns Against North Vietnam and Pacific Command-Wide Support of the War June 1964–July 1968*, US Government Printing Office, Washington, DC, 1969, pp. 49–52.

781 The additions were non-standard Items for the RAN: 81mm mortars for firing missile decoys, night-observation devices, an IFF active decoder and speech encryption equipment. [Grey, *Up Top*, p. 156.]

782 The two navies agreed to recognise and respect US foreign disclosure policies, and to afford US material the appropriate levels of safeguarding. The same agreement covered intelligence in the following terms: 'The RAN and CDR 7th FLT will mutually provide or exchange

intelligence directly or indirectly as required in the execution of their respective missions'. [AWM 124, Item 161/G/12 – Defence Committee: South Vietnam, Australian Contributions, logistics supplement to military working arrangement between Chief of Naval Staff, Royal Australian Navy and CINCPACFLT.]

783 NHC, VN reports – Ships: HMAS *Hobart* Apr 67–Sep 70. CNO message DTG 102009Z JUL 67 addressed CINCPACFLT, Information COMSEVENTHFLT and FICPAC, and CNO message DTG 203000Z JUL 67 to same addressees.

784 'No foreign' never seemed to raise it's head, because we relieved the battleship *New Jersey* soon after we got there, and in pretty short time they'd passed over the assets, which were all the circuits and all the rest of the Southern SEA DRAGON material, and I'm sure they wouldn't have had time to sanitise it'. [Interview of Vice Admiral DW Leach, RAN, (Rtd), by the author, 29 October 2001, hereafter the 'Leach interview)']. There were to be many other expressions of this trust. On several occasions, RAN officers and sailors were transferred to US warships to bolster USN resources in tasks such as fighter direction and control of air strikes on North Vietnam. [Interview of Commander RA Howland, RAN, (Rtd), by the author, 25 July 2002.]

785 While this pace of training activity may have seemed artificially high while the ships were in the Jervis Bay Exercise Areas, the experience of SEA DRAGON operations demonstrated that 'the tempo had been about right!'. [Leach Interview.]

786 'Some of them were very green, and a lot of them were gung-ho. They were outdoing each other to fire the most rounds and some of the ships' companies were a bit frightened of their captains, who were getting very close inshore and doing all sorts of things'. [Leach interview.]

787 Marolda and Fitzgerald, *Vietnam Conflict*, pp. 118–120.

788 Sharp, *Report*, p. 50.

789 To extend the range at which shore targets could be attacked, a cruiser was assigned to SEA DRAGON from March 1967. Even a battleship was assigned for October 1968. [Grey, *Up Top*, p. 129.]

790 AWM SO1704, interview with Rear Admiral PH Doyle, Commanding Officer HMAS *Perth*.

791 NHC, 7th Fleet provenance files SEA DRAGON June 1968.

792 NHC, 7th Fleet Summary, Box 2 of 4, 1968. For example, the summaries for early 1968 show disappointing results; in March only 275 of PR missions flown were effective. *Perth* was fired on by a battery tagged as being 'not occupied'. [Leach interview.]

793 AWM78, Item 292/6 – HMAS *Perth* Report of Proceedings, February 1968. On 15 June 1968 *Perth* directed 7th Fleet aircraft onto a 'CROSSLOT' surveillance radar detected by EW, which was destroyed. [NHC, 7th Fleet Provenance Files SEA DRAGON June 1968.]

794 A USN analysis suggested that the probability of detecting the missile's fire control system and missile homer transmissions in the dense X-band radar environment of the Gulf of Tonkin was slight. [NHC, 7th Fleet Summary, Box 2 of 4, 1968, February 1968.]

795 NHC, 7th Fleet Provenance Files SEA DRAGON June 1968.

796 NHC, 7th Fleet Summary Jan–Dec 1967, Box 1 of 4, July 1967, Conclusions and Recommendations

797 Coastal defence sites were not permanently armed. In January 1968 PR revealed a decrease of 25 per cent in occupied sites, but by May the same year activity had actually increased. [NHC, 7th Fleet Summary, Box 2 of 4, 1968.]

798 Targets fell into three categories–those near populated areas (for which spotting aircraft were mandatory), those on coastal logistics routes, and coastal defence sites. [Fairfax, *Navy in Vietnam*, p. 29.] As a further demonstration of USN confidence in the RAN ships, *Perth* held CTU responsibilities for SEA DRAGON for 59 out of the 80-odd days spent on that station. [AWM SO1704, Interview with Rear Admiral Doyle, Commanding Officer HMAS *Perth*.]

799 Fairfax, *Navy in Vietnam*, P. 60 and Grey, *Up top*, pp. 175–183.

800 'We were getting requests for five rounds or ten rounds at 15 targets overnight on intelligence we didn't know about'. [Leach interview.]

801 Sharp, *Report*, pp. 51–52, and Fairfax, *Navy in Vietnam*, p. 51. This was the aim of the operation. Some measure of the effectiveness of SEA DRAGON can be seen in the huge increase in WBLC activity observed by the 7th Fleet during the 1967 Tet (8–13 February) ceasefire, and the low levels of activity recorded at the end of 1967.

802 On 18 September 1967 a shell from a NVA coastal defence site hit *Perth*, causing slight damage and injuring four sailors; the ship continued its mission. [AWM78, Item 292/5 – HMAS *Perth* Report of Proceedings, September 1967.] This was the only damage caused to any RAN ship by coastal batteries during the war. For its part, the NVA made concerted efforts to lure SEA DRAGON units into positions where they could be taken under effective fire, and the calibre of the guns mounted in coastal defence sites had reached 100mm and even 130mm by October 1967. This reflected a sharp elevation in the level of concern felt by the NVA over the effectiveness of SEA DRAGON. [Fairfax, *Navy in Vietnam*, p. 44.]

803 AWM78, Item 292/6 – HMAS *Perth* Report of Proceedings, February 1968. Between 14 February and 1 March 1968, *Perth* assumed command of all SEA DRAGON surface units.

804 Marolda & Fitzgerald, *Vietnam Conflict*, pp. 166–169.

805 The incident that triggered this response was the discovery of a camouflaged steel-hulled ship at Vung Ro in Phu Yen Province on 16 February 1965. The cargo included an arsenal of weapons and ammunition and half a tonne of medical supplies. [BDM Corporation, *Operational Analyses*, pp. 7–16.]

806 RL Schreadley, *From the Rivers to the Sea: The United States Navy in Vietnam*, Naval Institute Press, Annapolis, Md, 1992, pp. 88–89.

807 MARKET TIME was credited with reducing NVA seaborne supply to only 10 per cent of the total. In 1967 daily searches for the whole MARKET TIME area totalled about 1500. [BDM Corporation, *Operational Analyses*, p. 7, 18–19.]

808 On 26 December 1969 *Vendetta* tracked two WBLCs to the vicinity of a beach in Quang Ngai Province where intelligence had reported recent tracks. She engaged and destroyed them while they were unloading stores. [AWM78, Item 352/9 – HMAS *Vendetta* Report of Proceedings, December 1969.] A similar incident saw *Perth* destroy two of three WBLCs attempting to land at night on the coast near the DMZ on 8 October 1970. [AWM78, Item 292/7 – HMAS *Perth* Report of Proceedings, October 1970.]

809 Fairfax, *Navy in Vietnam*, p. 71, and Grey, *Up Top*, p.138. Grey noted the comments of the RAN Director of Plans, who visited Vietnam in 1968, to the effect that the RAN had missed an opportunity by not offering an inshore surveillance force. Coming on the heels of the experience gathered by the 16th Minesweeping Squadron in its patrol operations during Confrontation, it was an opportunity twice missed.

810 BDM Corporation, *Operational Analyses*, p. 7–48.

811 The ANGLICO party comprised a liaison section with the headquarters of the force being supported and several spotting teams in the field. [Fairfax, *Navy in Vietnam*, p. 27.]

812 There were deficiencies in some of these charts. *Vendetta* discovered discrepancies of up to 10 metres in the charted depths off Quang Ngai, which made closing the coast for NGS somewhat hazardous. [AWM78, Item 352/9 – HMAS *Vendetta* Report of Proceedings, November 1969.]

813 Fairfax, *Navy in Vietnam*, p. 88.

814 GR Griffiths, 'DDGs in Vietnam: HMAS *Hobart*, 7 March to 27 September 1967', in Tom Frame, James Goldrick & Peter Jones (eds), *Reflections on the RAN*, Kangaroo Press, Kenthurst, NSW, 1991, p. 333.

815 Leach interview.

816 The *Daring* class destroyer HMAS *Vendetta*, which served in Vietnam from September 1969 to April 1970, had only 4.5 inch (115mm) guns, but she carried six rather than the DDG's two.

817 These operations were conducted in support of SEALORDS–TG 116.2. [Grey, *Up Top*, p. 220.]

818 Australian Naval Aviation Museum, *Flying Stations: A Story of Australian Naval Aviation*, Allen & Unwin, Sydney, 1998, p.179.

819 The agreement reached specified that RAN personnel would also have had training in 'current RVN affairs and the country and its peoples, and naval and military aspects of intelligence'. [AWM98, Item R579/1/27 – RAN HFV. HQ COMUSMACV Letter MACCOS 4 undated, 'Royal Australian Navy augmentation of 135th Assault Helicopter Company'.] Planning of this training was greatly assisted by the ten-day attachment of the contingent's officer-in-charge to the US 12th Aviation Regiment in Vietnam in August 1967.

820 The full US Army mission description for an AHC was: 'The Assault Helicopter Company provides tactical air movement of combat troops, supplies and equipment in airmobile operations. Typical mission assignments are: a. Tactical airlift of troops; b. Air movement of supplies and equipment; c. Augmentation of Army medical Service aero medical evacuation units; d. Search and rescue operations; e. Provide Command and Control aircraft capacity to the supported unit'. [Steve Eather, *Get the Bloody Job Done: The Royal Australian Navy Helicopter Flight Vietnam and the 135th Assault Helicopter Company 1967–1971*, Allen & Unwin, Sydney, 1998, pp. 10–11.]

821 ARVN formations had US Army advisers down to company level. These would invariably accompany the formation commander in the C&C helicopter on operations. [Commander Ted Wynberg, correspondence with author, 13 June 2003.]

822 Interview of Commander RG Ray, RAN, Rtd, by author, 23 October 2003, hereafter the 'Ray interview'.

823 Ray interview.

824 Commander PJ Arthur, RAN, (Rtd), correspondence with author, 11 June 2003. Briefings at company level did not often contain intelligence except on Items like AA defences: full intelligence briefings were the task of the J-2 at regimental level. [Commander Ted Wynberg RANR, correspondence with author, 13 June 2003.]

825 These considerations were also weighed carefully by the enemy. McCoy described the NVA concept of the 'prepared battlefield'. Locations assessed as attractive for Allied helicopter assaults were carefully studied, and the appropriate mix of fixed and mobile defences, including mines and booby traps, and the siting of AA weapons, were prepared by the defenders. [James W McCoy, *Secrets of the Viet Cong*, Hippocrene Books, New York, 1992, pp. 175–177.]

826 Commander RG Ray, RAN, (Rtd), correspondence with author 15 February 2004.

827 Commander Ted Wynberg, RANR, correspondence with author, 13 June 2003.

828 Commander Ted Wynberg, RANR, correspondence with author, 13 June 2003. The alacrity with which the VC learned and applied tactics to inflict maximum casualties on the insertions varied from regiment to regiment. An ambush of a US 9th Division insertion on 24 October 1968 was sprung after the first wave had been landed and caught the second wave while disembarking.

829 Fairfax, *Navy in Vietnam*, p. 138.

830 AWM SO1716 – Interview of Lieutenant Commander Rorsheim, 2nd Helicopter Flight Commander Vietnam. However, McCoy suggested that this tactic was unlikely to be successful against larger Viet Cong and NVA formations, which used captured US AN/PRC–10 FM radios. Only 'lower tactical levels' used AM radio. [McCoy, *Secrets*, p. 87.]

831 AWM SO1714 – Interview of Rear Admiral N Ralph 1st Helicopter Flight Commander Vietnam. At that time the ARV Navy, in particular, was accustomed to carrying out daylight sweeps through suspected Viet Cong positions before being extracted and returned to their base for the night. It was not until 1970 that the interdiction of the *Viet Cong* during the hours of darkness became a recognised practice.

832 One 135th gunship and its entire crew were lost in pursuit of retreating Viet Cong on 31 May 1969. Leading Seaman Shipp a door gunner, died in the crash. [Fairfax, *Navy in Vietnam*, p. 144.]

833 Commander WP James, RAN, (Rtd), correspondence with author, 6 July 2003.

834 Commander WP James, RAN, (Rtd), correspondence with author, 6 July 2003.

835 Commander WP James, RAN, (Rtd), correspondence with author, 11 June 2003.

836 Commander WP James, RAN, (Rtd), correspondence with author, 6 July 2003.

837 Commander WP James, RAN, (Rtd), correspondence with author, 6 July 2003.

838 Grey, *Up Top*, pp. 274–275.

839 Fairfax, *Navy in Vietnam*, p. 146.

840 AWM SO1704 – Interview of Rear Admiral N Ralph.

841 Commander IM Hall, RAN, (Rtd), correspondence with author, 19 June 2003.

842 Commander PJ Arthur, RAN, (Rtd), correspondence with author, 11 June 2003.

843 The author recollects that these included the attachment of RAN officers within Pacific Fleet operational staffs, a wider range of intelligence access opportunities for the staff of the Australian naval attaché in Washington and RAN participation in the RIMPAC series of exercises, including access to the Pacific missile range facility in Hawaii, commencing in 1971. The USN also became an active participant in the KANGAROO series of joint exercises sponsored by Australia, beginning in 1974.

844 BDM Corporation, *A Study of Strategic Lessons Learned in Vietnam Vol. VI: Conduct of the War, Book 2: Functional Analyses*, Defense Logistics Agency, Alexandria, Va, 1984, EX-4.

845 In fairness to the United States it must be noted that the main battle was not in Vietnam but rather in its strategically more important Cold War confrontation with the Soviet Union. That attracted the best ships and men as it involved a technological and operational contest at levels well above those in Vietnam. Australia had the luxury of only having one war to fight at the time.

846 Edwards, *Crises and Commitments*, p. 289.

## Final Observations and Conclusions

847 NAA A8447 – COSC Minutes, Minute 31/1970 of 6 May 1970.

848 Unlike the USN, which steadily developed its combat intelligence capabilities and organic intelligence collection materials, especially after Korea, the RAN has never had an intelligence branch in its permanent officer corps. In this it was also different from the Australian Army and the RAAF. It was not until the late 1970s that significant efforts and progress were made to enhance collection capabilities, and to organise the personnel and support organisations required for intelligence collection and tactical support in a modern maritime environment.

849 As has also been argued in the book, misidentification by IJN aircraft of Allied ships, especially their propensity for seeing battleships in the SWPA where there were none, had catastrophic operational and strategic consequences for that navy as well.

850 Training of RAN personnel for ASW duties with the RN, and the commissioning of a whole class of destroyers in the United Kingdom manned by RAN crews, were two enduring manifestations of these early decisions. In 1942, at the most serious stage of the Japanese advance, nearly 10 per cent of the RAN's personnel were serving with the RN.

851 Arguably, Sigint made a greater contribution, but it is not clear that even US commanders in the field invariably received this in time. If paraphrase of Sigint was necessary because of security concerns, then 'Coastwatchers' provided an acceptable source for the information.

852 Faced with a similar but larger and more-pressing problem, the First Sea Lord at the Admiralty created the position of Flag Officer Western Approaches to coordinate the defence of Atlantic convoys. The Australian CNS would, of course, have been aware of this development, but he may simply not have had an officer of the required calibre to assume this role, given other pressing demands.

853 The counter-argument is that the strength and determination of the UN ASW effort acted as a deterrent to Soviet and Chinese intentions.

854 'The training of competent intelligence officers is one of the first tasks confronting Intelligence. These officers should be thoroughly grounded in naval science, familiar with all intelligence sources, thoroughly versed in the capabilities of potential enemies, indoctrinated in the conflicting demands of security and dissemination and, in the higher echelons, competent to direct collection and ingradation. [sic] of intelligence material. The experience gained by intelligence officers in the field should be the basis of their training. For a very few, intelligence should be a lifetime career'. [Jasper Holmes, 'Narrative Combat Intelligence Center, Joint Intelligence Center, Pacific Ocean Area' , RH Spector (ed), in *Listening to the Enemy: Key Documents on the Role of Communications Intelligence in the War with Japan*, Scholarly Resources, Wilmington, Del., 1988, pp.154–169.] Captain Holmes experienced the struggles of the USN to create an organisation to support the intelligence demands of the Pacific Fleet in WWII. These, his narrative's concluding remarks, have wide applicability.

855 Although the RAN was keen to find a role for HMAS *Melbourne* in Vietnam, the 7th Fleet had no use for a carrier with such limited offensive capability, and the ASW threat was low. [Grey, *Up Top*, pp. 78–80.] Patrol craft would have been very useful to both USN and RAN but were not then in the RAN order of battle.

856 Despite the success of the Ton class CMS in Malaysia they had shortcomings in their patrol role. [UKNA DEFE 24/98 – Reports on Operations in East and West Malaysia 1964–1966. COMFEF letter 1763.FEF.143/12.Ops of 23 November 1966, annex G. Incident Report no. 3, 23 March 1965.]

857 DNI was able to provide detailed information on Vung Tau and an assessment of the risks faced by HMAS *Sydney* before her first trooping deployment in 1965, but whether this had been garnered by the RAN or collected from the USN is not clear.

858 RAN officers did not serve on any 7th Fleet staff during the conflict. There was one RAN staff officer attached to HQAFV in Saigon, largely for administrative duties.

## Appendix One—Australian Sigint and Intelligence Contributions in WWII

859 Pfennigwerth, *A Man of Intelligence*, pp. 54–7.

860 David Kahn, *The Codebreakers: The Story of Secret Writing*, Weidenfeld & Nicholson, London, 1966, pp. 586–587. While the Japanese attempted to change codes regularly to defeat Allied cryptanalysis and to preserve code integrity, the system collapsed under the difficulties of distributing new code materials to garrisons and forces spread over a theatre of nearly 20 million square miles, especially as Allied strategy began to isolate strong points from the Home Islands.

861 Alan Stripp, *Codebreaker in the Far East*, Frank Cass, London, 1989, p. 66.

862 Pfennigwerth, *A Man of Intelligence*, p. 146.

863 Layton *And I Was There*, p. 358. Layton also stated that CAST was providing intelligence on Japanese forces from JN-25 by 17 January 1942. It is confirmed that by March 1942 FECB was able to warn that the Japanese were planning an attack on Sri Lanka, planned to take place on 1 April. Winton, *ULTRA in the Pacific: How Breaking Japanese Codes and Ciphers Affected Naval Operations Against Japan*, Leo Cooper, London, 1993, p. 23.

864 Parker, *A Priceless Advantage,* p.20.

865 WJ Holmes, 'Naval Intelligence in the War Against Japan 1941–1945: The View from Pearl Harbor', in Craig L Symonds (ed), *New Aspects of Naval History: Selected Papers Presented at the Fourth Naval History Symposium, US Naval Academy, 25–26 October 1979*, Naval Institute Press, Annapolis, Md, 1981, p. 354.

866 Pfennigwerth, *A Man of intelligence*, pp. 167–176.

867 Benson, *A History*, p. 64.

868 Pfennigwerth, *A Man of Intelligence*, pp. 213–216.

869 NAA B5436, Item part B – Central Bureau Technical Records Part B–Naval Air-Ground Communications, is a heavily expurgated extract from a report on CBB codebreaking. On p.11 it made clear that decodes of IJN air-ground intercepts yielded valuable information on enemy transport and convoy arrangements, which were invariably passed to 7th Fleet Intelligence Center. Enemy reports of Allied submarine activity were similarly supplied.

870 Australians occupied the two of three deputy director positions throughout the war.

871 Benson, *A History,* p. 88. By the end of the war CB was staffed by officers and other ranks from the US Army, Australian Army, RAAF, RAN, UK forces, Canadian Army and New Zealand, together with civilian cryptanalysts, and had grown to a strength of almost 4500 personnel. MacArthur resisted even direct orders from General Marshall that his command was to adopt the special security officer (SSO) protocols for handling and disseminating

ULTRA material because SSO personnel were under the direct and personal command of Marshall and not him. [Benson, *A History*, p. 142.]

872  NAA A11093/1, Item 311/236G – RAAF Command Allied Force SWPA minute unreferenced of 1 June 1944.

873  NAA A6923, Item 16/6/289 – AMF Central Bureau, unreferenced letter from Lieutenant Colonel Sandford of 26 January 1945.

874  Alison Ind, *Spy Ring Pacific: The Story of the Allied Intelligence Bureau in South East Asia*, Weidenfield & Nicholson, London, 1958, foreword. Written by the director, this description of the activities of AIB stated that its sections conducted 264 missions, including 155 by SRD into the Celebes and Borneo in 1944–45. The price was 164 agents killed, 174 missing and 75 captured.

875  NAA B3476/0, Item 160B – NEA Intercept Stations: General.

876  Douglas A MacArthur & staff, *Reports of General MacArthur*, Department of the Army, Washington, DC, 1966, p. 54, footnote 20.

877  Winter, *The Intrigue Master*, p. 172.

878  ATIS grew from 36 personnel to over 2000 by the war's end. In the course of its work it screened over 350,000 captured documents and translated over 18,000 of these. It published over 2800 interrogation reports. [Peter Dennis, Jeffrey Grey, Ewan Morris, Robin Prior, & John Connor (eds), *The Oxford Companion to Australian Military History*, Oxford University Press, Melbourne, 1995, pp. 30–31.]

879  'It may well be that the present day allied intelligence cooperation has proved to be the most lasting and important legacy of Australia's experience of coalition warfare in the Second World War'. [Horner, *Australia and Allied Intelligence*, p. 44.]

880  AWM54, Item 327/25/2 – War establishment intelligence groups, shows that the Australian Army alone had 430 all ranks assigned to CBB, with an additional 14 at ATIS, 120 in the interrogation section and another 51 in photo-interpretation.

881  NAA B5436/2, Item part K – Critique of CBB, 1. The critique was compiled at the end of the war by the director, Colonel Sinkov, US Army, and his two deputies,, Lieutenant Colonel Sandford , Australian Military Force, and Wing Commander Booth, RAAF. It took time to recruit, train and dispatch US personnel to fill out the ranks of CB.

882  The main task of these sections was to DF and intercept Japanese administrative circuits, to provide warnings of Japanese air raids, and to break the codes. [Ballard, *On ULTRA Active Service*, pp. 197, 200 & 202.]

883  It was 1WU operators who intercepted the signal in February 1944 that reported the abandonment of Rabaul as an advanced operating base for the IJN air arm. [Bleakley, *The Eavesdroppers*, pp. 116–117.]

884  1WU was bolstered by linguists assigned by the US Army. The unit had an interesting war, finishing in Biak from August 1944.

885  Benson, *A History*, pp. 85–86. Possibly against his wishes, MacArthur had no option but to place dependence upon the Australians as he was singularly unsuccessful in extracting US special radio intercept companies from the US Army. It was not until 1944 that additional US companies arrived to join the 126th, which itself did not begin operation in Australia until November 1943.

886  The RAAF intercept operation travelled to Leyte aboard a US command ship and landed at Tacloban on 20 October 1944. [Bleakley, *The Eavesdroppers*, pp. 178–180.]

887  In New Britain in mid-1944, the Coastwatchers with locally raised native levies–about 450 men in all–drove back Japanese outposts into a tight perimeter cutting off the Gazelle Peninsula and the garrison of Rabaul from the rest of the island. [Feldt, *The Coast Watchers*, pp. 362–363.]

888  NAA B3476/0, Item 159 – DNI Information General: Irregular Organisations, DNI minute of 21/04/44.

889  David Horner, *Australia and Allied Intelligence in the Pacific in the Second World War*, Strategic and Defence Studies Centre, Australian National University, Canberra, 1980, p. 32.

890  AWM124, Item 4/290 – Report on Photo Reconnaissance.

891  Horner, *Australia and Allied Intelligence*, p. 43.

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