

**The Development of Australian
Army Jungle Warfare Doctrine and Training, 1941-1945**

Adrian Threlfall

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**School of Social Sciences
Faculty of Arts, Education and Human Development
Victoria University**

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Abstract

This thesis examines the development of Australian Army jungle warfare doctrine and training during the Second World War. The Australian Army transformed itself from a military force ill-prepared for conflict of any type in 1939 into one of the most professional, experienced and highly trained forces in jungle warfare in the world by 1945. The thesis analyses how this transformation occurred and, in doing so, provides a case study in institutional learning. Attempting to discover how an organisation learns is vital: unless these processes of adaptation are identified, it is extremely difficult for an organisation to apply successfully the lessons in the future. For no institution is this more pertinent than for the military. Armed forces unable to adapt to unforeseen challenges were frequently defeated with often profound consequences. The thesis identifies this process of development and adaptation by the Australian Army from 1941 to 1945.

Chapter one explores the interwar period in order to determine the state of military preparedness of the Australian Army and its knowledge of the South West Pacific Area prior to 1939. This will enable an evaluation of the scale of transformation that was required for the army to operate effectively in a tropical environment. The deployment of the 8th Division to Malaya in 1941 will be examined in **Chapter Two**. It also examines the loss of this formation and the subsequent impact upon the ongoing development of an Australian jungle warfare doctrine. **Chapter Three** will investigate the training undertaken by 6th Division on Ceylon in 1942, which provided valuable lessons for the future. **Chapter Four** discusses the preparations of 7th Division in Queensland prior to embarkation for Papua in order to halt the Japanese advance.

Chapter Five is the fulcrum around which the thesis revolves and is therefore the longest and most detailed chapter. The lessons learnt at great human cost between August 1942 and February 1943 were critical and they would form the basis of future jungle warfare learning. **Chapter Six** examines the training period on the Atherton Tablelands that followed those first campaigns, which culminated in the 7th and 9th Division campaigns of 1943-44 at Ramu-Markham and Lae-Finschhafen. **Chapter Seven** concludes the study by detailing the final campaigns of 1944-45.

I, Adrian Threlfall, declare that the PhD thesis entitled The Development of Australian Army Jungle Warfare Doctrine and Training 1941-1945, is no more than 100,000 words in length including quotes and exclusive of tables, figures, appendices, bibliography, references and footnotes. This thesis contains no material that has been submitted previously, in whole or in part, for the award of any other academic degree or diploma. Except where otherwise indicated, this thesis is my own work.

Signature

Date

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Abbreviations

AA	Anti-aircraft
AA & QMG	Assistant Adjutant and Quartermaster-General (Australian Staff)
ABDA	American British Dutch Australian
ADMS	Assistant Director Medical Services
ADS	Advanced Dressing Station
AFV	Armoured Fighting Vehicle
AHQ	Army Headquarters
AIF	Australian Imperial Force
AMF	Australian Military Forces
ANGAU	Australian New Guinea Administrative Unit
Armd	Armoured
Arty	Artillery
Arty/R	Artillery/Reconnaissance aircraft
A TK	Anti-tank
AWA	Amalgamated Wireless Australia (Ltd)
AWM	Australian War Memorial
Bde	Brigade
BM	Brigade Major
BMRA	Brigade Major Royal Artillery
Bn	Battalion
Brig	Brigadier
Bty	Battery
CGS	Chief of the General Staff
C in C	Command in Chief
CAC	Commonwealth Aircraft Corporation
Capt	Captain
CMF	Citizen Military Force
CO	Commanding Officer
Col	Colonel
Comd	Command, commander
Coy	Company
C of S	Chief of Staff
Cpl	Corporal
CRA	Commander Royal Artillery
CRE	Commander Royal Engineers
CSM	Company Sergeant Major
DCM	Distinguished Conduct Medal
Div	Division
DSC	Distinguished Service Cross
DSO	Distinguished Service Order
Engr	Engineer
Fd	Field
FOO	Forward Observation Officer
FUP	forming up place
GHQ	General Headquarters, SWPA
Gnr	Gunner
GOC	General Officer Commanding
GS	General Staff; Operations/Intelligence/Training

GSO1	General Staff Officer 1 st Class
HE	High Explosive
HF	harassing fire
HQ	Headquarters
Hrs	Hours
I/c	In command
INF	Infantry
Int	Intelligence
IO	Intelligence Officer
JW	jungle warfare
JWTC	Jungle Warfare Training Centre; Canungra
LAA	light anti-aircraft
LAD	Light Aid Detachment
L of C	Line (s) of Communication
LCI	Landing craft infantry
LCM	Landing craft mechanised
LCT	Landing Craft, Tracked
LCV	Landing craft vehicle
LCVT	Landing craft vehicle, tracked
LHQ	Land Headquarters
LMG	Light machine gun (Generally referred to the Bren gun)
LP	Listening post
LO	Liaison Officer
LOB	Left Out of Battle
LST	Landing ship tank
Lt (Lieut)	Lieutenant
Maj	Major
MC	Military Cross
MID	Mentioned in Despatches
MLR	Main Line of Resistance
MM	Military Medal
MMG	Medium Machine Gun
MP	Military Police
NCO	Non-Commissioned Officer
NGF	New Guinea Force
OC	Officer Commanding
OP	Observation Post
OPO	Observation Post Officer
Ops	Operations
OR	Other rank
PIB	Papuan Infantry Battalion
Pl	Platoon
Pnr	Pioneer
POW	Prisoner of War
PT	Physical Training
Pte	Private
QM	Quarter Master
RAA	Royal Australian Artillery
RAAF	Royal Australian Air Force
RAE	Royal Australian Engineers

RAN	Royal Australian Navy
RAP	Regimental Aid Post
Regt	Regiment
RMO	Regimental Medical Officer
RSM	Regimental Sergeant Major
SAA	Small Arms Ammunition
Sgt	Sergeant
Spr	Sapper
SWPA	South West Pacific Area
TEWT	Tactical Exercise Without Troops
Tng	Training
Tp	Troop [of guns]
Tpr	Trooper
Tps	Troops
2 I/C	Second in Command
USAAF	United States Army Air Force
VC	Victoria Cross
W/E	War Establishment
WO I/II	Warrant officer; first or second class; also War Office

Introduction

On 7 December 1941 warfare, as it was known and understood by Australian military forces, changed forever. Within weeks of the Japanese attacks on Pearl Harbour, Malaya and the Philippines, a new term had entered the lexicon of our military leaders: 'jungle warfare'. Suddenly an army that had been trained and equipped for conventional large-scale multi-unit warfare, of the kind in which it was involved in the Middle East, North Africa and the Mediterranean, was faced with a markedly different conflict.¹ Combat in the jungles, mountains and tropical rainforests of Papua, New Guinea, Bougainville and Borneo was to pose numerous, hitherto unforeseen, challenges to the Australian Army. The central aim of this study will be to identify and analyse the processes of adaptation that were required to meet and surmount these challenges. It will also address the following questions: How did an Australian jungle warfare doctrine evolve? How did an army with no previous experience in jungle warfare learn to operate in the jungle? How successfully did that army then apply the lessons it had learned?

The first two and a half years of the Second World War saw Australian forces fighting in the deserts of North Africa as well as in Greece, Crete and Syria. Although at times participating in retreats and defeats, the type of combat they were involved in would have been understandable to the Australian forces. The training, doctrine, weapons and tactics employed in these theatres were all familiar to the Australians. Exercises alongside British troops on the plains of Southern England or in Palestine and the Egyptian desert would not have differed markedly from those they undertook in New South Wales or Victoria before they sailed.² Although there were many differences between the battles of the First World War and the campaign in the Western Desert of the Second World War, an infantryman who had fought in both wars would have found many similarities, most notably in the weapons, training, tactics and doctrine. The same cannot be said for those units thrust into battle in Malaya, Papua or the islands of the South West Pacific in 1942.

¹ Gavin Long, *To Benghazi: Australia in the War of 1939-1945, Volume 1*, Australian War Memorial, ACT: Australian War Memorial, 1952, pp. 70-85. The 8th Australian Infantry Division had, of course, been stationed in Malaya for several months, and whilst there had carried out jungle training, prior to 7 December 1941. Nevertheless, the majority of the Australian Army was trained and organised for warfare in Europe or the Middle East. Chapter two will examine the experiences of the 8th Division.

² Syd Tregellis-Smith, *Britain to Borneo: A History of the 2/32 Australian Infantry Battalion*, Sydney: 2/32nd Australian Infantry Battalion Association, 1993, pp. 3-6.

When the Pacific War broke out on 7 December 1941, the only Australian units that had received any jungle warfare training were two brigades of the 8th Division, which had, since mid-1941, been stationed in Malaya.³ As the 8th Division commanding officer stated, ‘a few minutes in the jungle was sufficient to convince me that we had to start afresh on our training’.⁴ While the veracity of Bennett’s self-exculpatory account has been long debated, the conviction that the tropical environment required different training methods is indisputable.⁵ Lieutenant-Colonel Phil Rhoden, later the commanding officer of the 2/14th Australian Infantry Battalion, which fought in the Syria Campaign and on the Kokoda Track, discussed at some length the major differences between combat in the desert and the jungle, and how those differences made a commander’s job immeasurably harder in the tropics than in other environments.⁶ As Dornan demonstrated, many Australian units were thrust into battle with little or no comprehension of the vastly different challenges they would face.⁷ Identifying how these differences were overcome will be one of the primary aims of this thesis.

To gain an understanding of just how profound an undertaking was this process of adaptation will require scrutinising a wide range of sources. The contemporaneous doctrine and training of the Australian Army in this period will be examined through the many Army training manuals, pamphlets and syllabi. How much did the traditional warfare doctrines, methods and training have to change in order for the Australian Army to successfully fight in an extremely difficult environment? What was the level of knowledge of the challenges and difficulties of operating in tropics? Had, for example, the First World War experiences of the Australian Naval and

³ 22 Brigade had deployed to Malaya in February, with 27 Bde joining them in August. The three battalions of 23 Bde were widely dispersed to garrisons on Timor, Ambon and New Britain over the course of 1941.

⁴ Lieutenant-General H. Gordon Bennett, *Why Malaya Fell*, Sydney: Angus & Robertson, 1944, p. 12.

⁵ Frank Legg, *The Gordon Bennett Story*, Sydney: Angus & Robertson, 1965; A. B. Lodge, *The Fall of General Gordon Bennett*, Sydney, NSW: Allen & Unwin, 1988, p. 50. It is now generally accepted that Brigadier H. B. Taylor, commander of the 22nd Australian Infantry Brigade, his Brigade Major, C. B. Dawkins, and to a lesser extent, Bennett’s Chief of Staff, Colonel J.H. Thyer, played a greater role in preparing the Division for the new challenges of jungle warfare than Bennett, notwithstanding the latter’s claims to the contrary in his book on the Malayan campaign. This will be discussed in greater detail in chapter two.

⁶ Patrick Lindsay, *The Spirit of the Digger: Then and Now*, Sydney: Macmillan, 2003, pp.184-5. While this book doesn’t increase our knowledge of the Australian experience of the Second World War, the sections involving Rhoden are very useful for the current thesis.

⁷ Peter Dornan, *The Silent Men: Syria to Kokoda and on to Gona*, St. Leonards. NSW: Allen & Unwin, 1999, pp. 76-78 and 92-98.

Military Expeditionary Force's (AN & MEF) seizure of the German-controlled territories of New Guinea and New Britain been examined?⁸ Were the issues of observation, command and control dealt with in any detail? Had thought been given to the employment of armour and artillery in the jungle? Had questions of supply and transportation in mountainous tropical terrain been discussed? Were medical procedures in place to combat the multitude of tropical diseases prevalent in the area of operations? All of these questions, and others, need to be answered if we are to gain an understanding of how, by 1945, the Australian Army was able to help defeat the Japanese forces in the South West Pacific Area (SWPA).

Arguably the greatest revolution the Australian Army has ever undergone occurred in the years between late 1941 and 1945. Virtually overnight the Australian Army had to reinvent itself to face the very different problems posed by combat in the tropical environment of New Guinea and the islands of the South West Pacific. This very rapid transition was felt at all levels of the Australian Army, from the Chiefs of staff to the lowliest private soldier. This study will show how an institution that is traditionally resistant to change – an army – managed this change in a remarkably short period of time. Historical examples abound of armies that were unable to successfully adapt to new and unforeseen forms of conflict, from Napoleon's army in Spain to the US Army in Vietnam.⁹ How the Australian Army managed to succeed where others have failed thus holds valuable lessons, for both historians and for soldiers.

Attempting to discover how an organisation learns is vital. For no institution is this more pertinent than for the military. As Elizabeth Kier succinctly argued: 'if an army fails to adequately adapt to a new form of warfare, there is not an auxiliary army

⁸ S.S. Mackenzie, *The Australians at Rabaul: Vol X, Official History of Australia in the War of 1914-1918*, Sydney: Angus & Robertson, 1927. See, especially chapters V 'The Seizure of Rabaul' and XIII 'Work of the Australian Army Medical Corps'. (Chapter one of this study will examine the AN & MEF)

⁹ Deborah Avant, *Political Institutions and Military Change: Lessons from Peripheral Wars*, Ithaca, NY: Cornell University Press, 1994; Lloyd C. Gardner & Marilyn B. Young (eds), *Iraq and the Lessons of Vietnam or How Not to Learn from the Past*, New York: The New Press, 2007, especially the chapters by Elliot and Young; Lawrence Kaplan, 'Clear and Fold: Forgetting the Lessons of Vietnam', *New Republic*, Vol 233, Issue. 25, 19 December 2005 & John Lawrence Tone, *The Fatal Knot: the guerrilla war in Navarre and the defeat of Napoleon in Spain*, Chapel Hill: North Carolina Press, 1994.

ready to assume its place when the unprepared army is defeated'.¹⁰ Or as Michael Howard stated, 'this is an aspect of military science which needs to be studied above all others in the armed forces: the capacity to adapt oneself to the utterly unpredictable, the utterly unknown'.¹¹ The adaptations and modifications to which the Australian Army was forced to resort during the jungle campaigns epitomise an army adapting itself to the utterly unknown. From infantry minor tactics, the employment of support weapons, infantry-tank cooperation, to close air support in the jungle, a broad swathe of new methods had to be developed by the Australian Army. By examining these changes, this thesis will enable a fuller understanding of how the Australian Army successfully developed a jungle warfare doctrine over the course of the Second World War. Scant attention has thus far been devoted to this subject, arguably due to the fact that doctrinal and tactical changes occur gradually and appear to provide little of the grandeur and excitement of climatic battles.

In the three decades after the end of the Second World War the Australian Army was involved in several operational deployments in tropical environments, most notably Vietnam. By examining the first occasion on which the army found itself faced by combat in jungles and rainforests, greater understanding of those subsequent deployments will be possible. This thesis will therefore provide a stepping-stone to understanding the Australian Army's post-war doctrinal development. It will also provide a case study in institutional learning under the most extreme of circumstances, defence of the nation during time of war.

¹⁰ Elizabeth Kier, *Imagining War: French and British Military Doctrine Between the Wars*, Princeton, New Jersey: Princeton University Press, 1997, p. 155.

¹¹ Michael Howard, 'Chesney Memorial Gold Medal Lecture', 30th October, 1973, in Harold Winton & David Mets (eds), *The Challenge of Change: Military Institutions and New Realities, 1918-1941*, Lincoln, Nebraska: University of Nebraska Press, 2000, p. I

Literature Review

Australia has, at first glance, a rich and varied historiography of warfare. Stretching back to the works of C.E.W Bean on the First World War through to the historians of today, the histories of past campaigns and the lives of generals unfold before us. We need look no further than the shelves of any large bookstore to confirm that Australian interest in the martial deeds of their forebears is undiminished. In the past few years more than a dozen books have been published on the battles of Gallipoli and Kokoda alone.¹ When biographies of military leaders such as Generals Blamey or Morshead, and those works that examine other battles and campaigns are included, the numbers are far greater.² Also widely covered have been the complex national and international political machinations involving wartime leaders such as Hughes, Menzies, Curtin and Churchill. The Second World War period has proved of particular interest to many historians both with regard to Australian-British and Australian-US relations.³

¹Those on Gallipoli include; Les Carlyon, *Gallipoli*; Sydney: Macmillan, 2001; Tim Catell, *Gallipoli and all that: illustrated blackline masters*; Wollongong, NSW: Dabill Publications, 2003 (a children's book for upper primary and early secondary students, demonstrating that inculcation into the world of Australian military history occurs at a young age); Robert Rhodes James, *Gallipoli*, London: Pimlico, 1999; Jonathon King, *Gallipoli Diaries: the Anzac's own stories day by day*; East Roseville, NSW: Kangaroo Press, 2002; Anthony Macdougall, *Gallipoli and the Middle East, 1915-18*; Port Melbourne, Vic: Moondrake, 2004; Maurice Shadbolt, *Voices of Gallipoli*, Sydney: Ling Publishing, 2001; Nigel Steel, *Battleground Europe: Gallipoli*, London: Leo Cooper, 1999. The battle for Kokoda has, if anything, produced more books than Gallipoli in recent years, including; Stuart Braga, *Kokoda Commander: A life of Major-General 'Tubby' Allen*; South Melbourne, Vic: Oxford University Press, 2004; Peter Brune, *A Bastard of a Place: The Australians in Papua*; Crows Nest, NSW: Allen & Unwin, 2003; Peter Fitzsimmons, *Kokoda*; Sydney: Hodder, 2004; Paul Ham, *Kokoda*; Pymble, NSW: Harper Collins, 2004; Patrick Lindsay, *The Spirit of Kokoda: Then and Now*; South Yarra, Vic: Hardie Grant Books, 2002 Frank Sublet, *Kokoda to the sea: A history of the 1942 campaign in Papua*; McCrae, Vic: Slouch Hat Publication, 2000; Robert Hillman, *The Kokoda Trail*; Carlton, Vic: Echidna Books, 2003 (another book for teachers of upper primary and lower secondary students, continuing the theme of Gallipoli above.)

² Phillip Bradley, *On Shaggy Ridge: The Australian Seventh Division in the Ramu Valley Campaign: From Kaiapit to the Finisterre Ranges*; Melbourne, Vic: Oxford University Press, 2004; David Coombes, *Morshead: Hero of Tobruk and El Alamein*; Melbourne, Vic: Oxford University Press, 2001; John Coates, *Bravery Above Blunder: the 9th Australian Division at Finschhafen, Sattelberg and Sio*; Melbourne: Oxford University Press, 1999; Steve Eather, *Desert Sands, Jungle Lands: A biography of Major-General Ken Eather*, Crows Nest, NSW: Allen & Unwin, 2003; David Horner, *Blamey: Commander-in-Chief*, St. Leonards, NSW: Allen & Unwin, 1998; Mark Johnston and Peter Stanley, *Alamein: The Australian Story*; Melbourne: Oxford University Press, 2002; Michael B. Tyquin, *Neville Howse: Australia's First Victoria Cross Winner*, Melbourne, Oxford University Press, 1999.

³ David Day, *Menzies and Churchill at War*, Melbourne: Oxford University Press, 1993; David Day, *Reluctant Nation: The Politics of War*, Pymble NSW: HarperCollins, 2003; John K. Edwards, *Curtin's Gift: Re-interpreting Australia's Greatest Prime Minister*, Crows Nest, NSW: Allen & Unwin, 2005; Donald Horne, *Billy Hughes*, Melbourne: Bookman Press, 2000; Norman E. Lee, *John Curtin: Saviour of Australia*, Melbourne: Longman Cheshire, 1983.

This interest in military history is, of course, not a new phenomenon, nor is it peculiar to Australia. But the universality of interest mirrors a universality of deficiency. Australian military historiography is very broad in scope but narrow in focus. Famous commanders and famous battles dominate the field. This emphasis has been detrimental to our understanding of military history: by focusing on famous battles and generals some historians have overlooked the more gradual systemic and developmental changes that are equally important. However, the past decade has seen a partial shift in emphasis as historians address subjects that have previously been ignored or under-researched.⁴ Indeed, since the late 1970s several changes have occurred within the field of military history. Most of these changes have been positive and in various ways have broadened our understanding of the Australian wartime experience. The advent of the cultural and post-colonialist discourses has seen previously neglected areas of our military history receive examination. These topics have included the numerous changes on the home front such as women's increased participation in the workforce, rationing and shortages, the impact of the influx of US servicemen, postwar grief and memory and the role of indigenous Australians during war.⁵ This thesis has a similar aim: to deepen our understanding of the role of the Australian Army during the Second World war by exploring the areas of training and doctrinal development.

A detailed examination of past and current military historiography, both Australian and international, reveals several recurring genres or themes. These themes transcend eras and are as popular today as they were to previous generations. Foremost among these is biography. In Australia, as in many other nations, biographies and autobiographies are a staple of both the academic and non-academic worlds. As Jim

⁴ See for example the recent works by Chris Coulthard-Clark, *Australia's Military Map-makers: the Royal Australian Survey Corps 1915-96*, Melbourne: Oxford University Press, 2000; Tony Sweeney, *Malaria Frontline: Australian Army Research During World War II*, Melbourne: Melbourne University Press, 2003; Alan Powell, *The Third Force: ANGAU's New Guinea War, 1942-46*, Melbourne: Oxford University Press, 2003; Albert Palazzo, *The Australian Army: A History of its Organisation 1901-2001*, Melbourne: Oxford University Press, 2001.

⁵ Anthony J. Barker, *Fleeting Attraction: a social history of American servicemen in Western Australia during the Second World War*, Nedlands, WA: University of Western Australia Press, 1996; Joy Damousi, *Living with the Aftermath: trauma, nostalgia and grief in post-war Australia*, Cambridge: Cambridge University Press, 2001; Joy Damousi & Marilyn Lake (eds), *Gender and War: Australians at War in the twentieth century*, Cambridge, UK: Cambridge University Press, 1995; Robert A. Hall, *The Black Diggers: Aborigines and Torres Strait Islanders in the Second World War*, Sydney: Allen & Unwin, 1989; Michael McKernan, *All in: Australia During the Second World War*, Melbourne: Thomas Nelson, 1983.

Sharpe has argued, 'traditionally, history has been regarded...as an account of the doings of the great'.⁶ This viewpoint is epitomised in the sweeping statement by the 19th century British historian Thomas Carlyle: 'no great man lives in vain. The history of the world is but the biography of great men'.⁷ This attitude, although challenged repeatedly over the previous century, firstly by the Annalists then by the adherents of E. P. Thompson and later by post-colonial and social historians, shows no sign of abating.⁸

While few people would agree with John Vincent's controversial statement that 'history is about winners, not losers...history is deeply male...history is about the rich and famous, not the poor', the tendency to view history through the lives of the great and powerful continues.⁹ In the field of military history this tendency is similarly obvious. As C. B. McCullagh stated, 'with history, people love an exciting story, where they can identify with the leading characters, in their pursuit of power and fortune', or in the case of military history, where a famous commander can mean the difference between life and death, between victory and defeat.¹⁰ It has also been regularly argued that the presence of a great general on the battlefield has turned many a defeat into a victory. For example, according to Gunther Rothenberg, the Duke of 'Wellington believed that Napoleon's presence in battle was worth two corps'.¹¹ This belief has arguably been one of the prime reasons behind the prevalence of biographies of famous commanders.

Of course, the mere existence of a biography does not necessarily mean that a particular text is worth studying. As with biographies of famous political leaders or statesmen, military biographies can tend towards hagiography. This is evident in

⁶ Jim Sharpe, 'History from Below', in P. Burke (ed), *New Perspectives on Historical Writing*, University Park, PA: The Pennsylvania State University Press, 1991, p. 25.

⁷ Thomas Carlyle, *Heroes and Hero Worship*, quoted in Donald Fraser, *Dictionary of Quotations*, London: Collins, 1988, p. 68.

⁸ The French Annales School of history, founded by Marc Bloch and Lucien Febvre in the 1920s, owed much to the ideas of philosopher Emile Durkheim. It saw a decided shift in emphasis, away from what they called narrative history, or 'the history of events', to a more inclusive and broad-ranging history. Also targeted by the Annalists was the tendency to concentrate upon the lives of the great and powerful, at the expense they felt, of the great majority of the population. With the publication in 1966 of his groundbreaking piece 'History from Below', *Times Literary Supplement*, 7 April 1966, pp. 279-280, the English historian E. P. Thompson revolutionised the way historical enquiry was conducted and carried forward the earlier ideas of the Annalists.

⁹ John Vincent, *An Intelligent Person's Guide to History*, London: Duckworth, 1996, pp. 12-15.

¹⁰ C. B. McCullagh, *The Truth of History*, London: Routledge, 1998, p. 303.

¹¹ Gunther E. Rothenberg, *The Napoleonic Wars*, London: Cassell, 1999, p. 38.

Whitney's biography of General MacArthur, while Sayers's biography of General Herring lacks critical analysis.¹² When it comes to the subject of Australia's only Field Marshal, General Sir Thomas Blamey, it is clear that Horner's biography is superior in its analysis and objectivity, to Hetherington's study of the same man.¹³ Similarly, the treatment of General Monash by Serle is superior to the more recent work by Perry.¹⁴ Biographies are one of the most enduring forms of Australian military history, particularly with respect to high-ranking officers.¹⁵ However, their usefulness to the current thesis is minor for they rarely discuss issues such as training or doctrinal development. They are more interested in demonstrating how great an impact their subject had on a battle, for example the pivotal role of General Morshead in the defence of Tobruk.¹⁶

Furthermore, this tendency to concentrate upon the lives and careers of senior commanders excludes or elides the experiences of the wider armed forces.¹⁷ The advent of post-colonial writing attempted to rebalance the ledger and 'to show that the Battle of Waterloo involved Private Wheeler as well as the Duke of Wellington'.¹⁸ Arguably, another attempt at redressing the imbalance is the continuing prevalence of autobiographies and semi-autobiographical memoirs such as the works by Ryan, Hartley and White.¹⁹ Examining works such as these allows an insight into how

¹² Sayers, *Herring* and Courtney Whitney, *MacArthur: His Rendezvous with History*, New York: Alfred A. Knopf, Inc, 1955.

¹³ John Hetherington, *Blamey: The biography of Field-Marshal Sir Thomas Blamey*, Melbourne: F. W. Cheshire, 1954; Horner, *Blamey*.

¹⁴ Geoffrey Serle, *John Monash, a biography*, Melbourne: Melbourne University Press, 1982 and Roland Perry, *Monash: The outsider who won a war: a biography of Australia's greatest military commander*, Milson's Point NSW: Random House, 2004.

¹⁵ See, for example Eather, *Desert Sands, Jungle Lands*; Bill Edgar, *Warrior of Kokoda: a biography of Brigadier Arnold Potts*, St. Leonards, NSW: Allen & Unwin, 1999 and G. H. Fearnside & K. Clift, *Dougherty: A Great Man Among Men*, Sydney: Alpha Books, 1979 and David Horner, *General Vasey's War*, Melbourne: Melbourne University Press, 1992.

¹⁶ Coombes, *Morshead*, pp. 124-5.

¹⁷ Leela Gandhi, *Postcolonial Theory: A Critical Introduction*, St. Leonards: Allen & Unwin, 1998, p. 42.

¹⁸ Sharpe, 'History from Below', p. 32. Earlier in this chapter Sharpe examines *The Letters of Private Wheeler, 1809-1828*, B. H. Liddell Hart (ed) London: 1951, which as the title suggests contains many years worth of letters sent by Private Wheeler home to his wife in England, thus giving an example of how history from below can help provide us with a deeper understanding of the past.

¹⁹ Peter Ryan, *Fear Drive My Feet*, Sydney: Angus & Robertson, 1959; Frank Hartley, *Sanananda Interlude*, Melbourne: The Book Depot, 1949; Frank Legg, *War Correspondent*, Adelaide: Rigby, 1964; Osmar White, *Green Armour*, Sydney: Angus & Robertson, 1945. The first work, while a novel, closely mirrors the authors' own experiences in the New Guinea campaign. The second is an account of the 7th Aust Div Cavalry Regiment with which the author served during the Second World War. The third and fourth were written by war correspondents who experienced first-hand the extremely difficult conditions under which the Australians had to toil in the New Guinea campaigns. Eric Lamberts' many

Australian soldiers coped with the challenges posed by combat in an unknown and debilitating environment such as New Guinea. They are therefore useful secondary sources for this study. However, high-ranking officers have written most of these works, and the same proviso regarding the majority of biographies must be applied here also.²⁰

When an attempt is made to examine the lives of those below the ranks of the General Officers the field narrows considerably. Biographies of lower-ranking soldiers do appear, but they almost invariably discuss those who were unique, or at the very least outstanding in some way. Foremost amongst these are the biographies of those soldiers who have been awarded Australia's highest military decoration, the Victoria Cross. From the surgeon who won the first VC ever awarded to an Australian, during the Boer War, to possibly our most famous VC, Captain Albert Jacka at Lone Pine in 1915, and onto Sergeant Thomas Derrick's almost single-handed victory at Sattelberg and the deaths of two of the Australian Army Team Members during the Vietnam War, most have had books or at the very least chapters of books written about them.²¹ Similarly, specialist units such as the Special Air Service (SAS) have always attracted attention from historians and readers alike, both here and abroad.²² Once the focus moves away from these areas the number of biographies decreases considerably. As with the biographies of famous generals, these works focus on descriptions of battles

books including *The Twenty Thousand Thieves*, Melbourne: Newmont, 1951, often use the authors' experiences in North Africa.

²⁰ Ivan Chapman, Iven G. Mackay: *Citizen and Soldier*, Melbourne: Melway Publishing, 1975; F. Kingsley Norris, *No Memory For Pain: An Autobiography*, Melbourne: William Heinemann, 1970; Sydney Rowell, *Full Circle*, Melbourne: Melbourne University Press, 1974.

²¹ Mark Adkin, *The Last Eleven?*, London, Leo Cooper, 1991, this book consists of eleven chapters, one on each of the post-WWII Victoria Cross winners. All of the four Australian VC recipients were members of the Australian Army Training Team operating as advisers with South Vietnamese forces. Two of them, Major Peter Badcoe and Warrant Officer Class 2 Kevin Wheatley received their awards posthumously. Murray Farquhar, *Derrick, VC*, Adelaide: Rigby, 1982; Ian Grant, *Jacka, VC: Australia's finest fighting soldier*, South Melbourne: Macmillan Australia, 1989; Macklin, Robert, *Jacka VC: Australian Hero*, Crows Nest, NSW: Allen & Unwin, 2006; James Holledge, *For Valour*, Melbourne: Horowitz, 1965; Alison Starr, *Neville Howse VC: biography of an authentic Australian hero*, Sydney: Les Baddock & Sons, 1991; Tyquin, *Neville Howse: Australia's first Victoria Cross Winner*; Lionel Wigmore & Bruce Harding (eds), *They Dared Mightily*, Canberra: Australian War Memorial, 1963.

²² J. B. 'Lofty' Dunn, *Eagles Alighting: a history of the Australian Parachute Battalion*, East Malvern, Vic: I Australian Parachute Battalion Association, 1999; Tony Geraghty, *Who Dares Wins: The Story of the SAS, 1950-1980*, London: Fontana/Collins, 1981; David Horner, *SAS: Phantoms of the Jungle*, North Sydney, NSW: Allen & Unwin, 1989; J. M. Malone (ed), *SAS: a pictorial history of the Australian Special Air Service 1957-97*, Northbridge, WA: Access Press, 1997; Ian McNeill, *The Team: Australian Army Advisers in Vietnam, 1962-72*, St Lucia, QLD: University of Queensland Press in Association with the Australian War Memorial, 1984; Phillip Warner, *The Special Air Service*, London: Sphere Books, 1982.

and acts of great bravery. They make compelling reading but, for the purposes of this study, provide little insight into the gradual changes that eventually resulted in the development of an Australian jungle warfare doctrine.

Autobiographies by Australian Second World veterans are limited but useful. Amongst these are the memoirs by Henry 'Jo' Gullet, Geoffrey Hamlyn-Harris and Stan Arneil.²³ Many convey how frontline soldiers adapted and overcame the difficulties posed by their new and unfamiliar combat environment and permit some insight into what life was like on operational service. It is most likely in an attempt to capture these experiences and memories of war service, which has led to one of the staples of Australian military writing, the unit history.

The unit history constitutes the largest percentage of military history titles in Australia. Immediately after World War 1, Australian servicemen published the history of their units on active service.²⁴ Generally these works are the history of a particular battalion, the unit that a soldier in the Australian army most readily identified with, unlike the British army, where the regiment was the focus of pride and community.²⁵ A battalion, being approximately 800 men strong, was the standard self-supporting and self-contained formation in the Australian army in both the First and Second World Wars. As a consequence, it was also the largest formation in which it was feasible for a soldier to develop a practical and emotional connection with his comrades. The brigade, generally consisting of three battalions, or division, of three brigades, was simply too large a formation with which to forge a close link.²⁶ Thus,

²³ Stan Arneil, *One Man's War*, Sydney: Alternative Publishing Co-Operative, 1981; Henry 'Jo' Gullet, *Not as a Duty Only: An Infantryman's War*, Melbourne: Melbourne University Press, 1976; Geoffrey Hamlyn-Harris, *Through Mud and Blood to Victory*, G. Hamlyn-Harris: Stanthorpe, Qld, 1993. Others worth mentioning include, Rollo Kingsford-Smith, *I Wouldn't Have Missed It For Quids*, self-published, 1999; Frank Rolleston, *Not a Conquering Hero*, Mackay, Qld: F. Rolleston, 1995; Julian Waters, *'Doc's War'*, self-published, 1988.

²⁴ W. Devine, *The Story of a Battalion* (48th Bn), Melbourne, 1919. E. Gorman, *With the Twenty-Second*, Melbourne, 1919; J. J. Kennedy, *The Whale Oil Guards* (53rd Bn), Dublin, 1919.

²⁵ See Dale Blair, 'An Army of Warriors, these Anzacs': Legend and Illusion in the First AIF, PhD thesis, Victoria University of Technology, 1997, pp. 7-11 for a more detailed discussion of the differences between the two countries and especially the attachment by soldiers to their battalion.

²⁶ During the First World War, British and therefore Australian infantry brigades, consisted of four battalions. At the beginning of the Second World War this system was repeated, but soon Australia came into line with Britain and changed to the three-battalion system. See Palazzo, *The Australian Army*, pp. 142-3 for more detail. (The attachment to a battalion does not mean that a soldier was not proud to be a member of the 6th instead of say the 9th Division, rather that it was impossible for any man to personally know 15,000 members of his infantry division.)

when it was time to reminisce after the war, it was to his battalion comrades that a soldier turned.

This wartime link to a soldier's battalion, at least in Australia, has invariably culminated in battalion associations and eventually to the publication of a battalion history, generally by a former member of that unit. The army is, of course, not alone in this phenomenon, and the equivalents in the Royal Australian Air Force (RAAF) would be Squadron histories and in the Royal Australian Navy (RAN), a ship's history.²⁷ In fact it is often amongst the RAAF histories that one finds some of the more arcane titles.²⁸ What sets the army unit histories apart is their sheer quantity.²⁹ Almost 300 books have been written featuring units that served in the Second World War alone. Virtually every one of the infantry battalions that served in the Australian army in World War Two has a unit history, both those in the 2nd AIF and the militia.³⁰ Thus has been created a vast historical resource that has been invaluable to this study.

In a sense, unit histories are a form of 'history from below'. Men who had served in the unit almost invariably wrote these works. Because the writers are those who lived the actions and experiences described, they have an insider's ability to obtain information from fellow unit members that would be denied an outsider. They are usually exceptionally detailed, at times excessively so, and often trace in bland prose everyday minutiae of their units' war.³¹ As Stanley states, 'they too often appeal largely to those who served, baffling even members of their families, who vaguely

²⁷ In at least one case the experiences of RAN sailors during WWII could not be served by a ships' history, which lead to a work on one of the least well-known units ever to serve in the Australian military forces. Alex Marcus, *"DEMS? What's DEMS? The story of the men of the Royal Australian Navy who manned defensively equipped merchant ships during World War II*, Brisbane, Qld: Boolarong Publications, 1986.

²⁸ C. R. Taylor, *I Sustain the Wings: a history of No. II Repair and Servicing Unit, RAAF, 1942-45*, Burwood, Vic: self-published, 1992.

²⁹ Peter Stanley, 'The Green Hole Reconsidered', in Peter Dennis & Jeffrey Grey (eds) *The Foundations of Victory: The Pacific War, 1943-44*, The Chief of Army's Military History Conference 2003, Canberra: Army History Unit, 2003, p. 206. Stanley discussed the fact that in the period from 1998-2003, five engineer field companies published histories, expanding this large genre.

³⁰ In 2005 the final 2nd AIF battalion, the 2/9th, published their battalion history.

³¹ See, for example, the 500 plus page history of the 2/4 Australian Independent Company. G. E. Lambert (ed) *Commando: From Tidal River to Tarakan: The story of No. 4 Australian Independent Company, AIF*, Penrith, NSW: Australian Military History Publishers, 1996 or the almost 350-page history of the 2/31st Infantry Battalion; John Laffin, *Forever Forward: the story of the 2/31st Infantry Battalion, 2nd AIF 1940-45*, Newport: 2/31st Australian Infantry Battalion Association, NSW Branch, 1994.

recall that Dad was in the infantry somewhere up in the islands'.³² Being self-published and aimed at a very specific audience, usually the surviving members of the unit, unit histories generally have limited appeal. They are characterised by an often parochial, independent attitude of the unit's members who argue that their unit's history is 'for us and by us'. However, they provide a concrete and detailed record of a unit's wartime service and allow a window into the everyday lives of soldiers, both on operational service overseas and at home in training and on leave.

Personal recollections of thoughts, feelings and experiences, both positive and negative, are found throughout these works, providing an invaluable source of information for historians and, more importantly, for this thesis. Whether discussing the boredom of digging innumerable slit trenches in the desert, being guinea pigs for a new invention, fighting desperately for life on a torpedoed Landing Ship Tank (LST), the surreal experience of battling a pyjama-clad Vichy French machine-gun crew in the Syrian hills, or the confused fighting withdrawal along the road from Muar, such unit histories provide substantial primary historical material.³³ They rarely use sources beyond interviews with surviving unit members and unit war diaries in the Australian War Memorial archives. They do not provide a comprehensive picture of the war, or record all the movements of different units in a single engagement or battle. Nevertheless, they successfully accomplish what they desire to do: provide a detailed record of the wartime experiences of a single unit. Where traditional military histories tend to downplay or ignore routine events such as changes in training syllabuses or the introduction of new clothing or weapons, this is usually faithfully recorded in a unit history. By examining these histories and comparing them with primary source material, such as the extant military training pamphlets and unit war diaries, the evolution and development of an Australian jungle warfare doctrine can be traced.

Another prevalent genre of military historiography is operational history or those works that examine significant battles and campaigns. Although less valuable to the

³² Peter Stanley, 'The Green Hole: exploring our neglect of the New Guinea campaigns of 1943-44' in *Sabretache*, vol xxxiv, April/June 1993, p. 3.

³³ Tregellis-Smith, *Britain to Borneo*, p. 8.; Bentley, *The Second Eighth*, p. 122; Lambert (ed), *Commando: From Tidal River to Tarakan*, pp. 269-274; Laffin, *Forever Forward*, p. 41; R. W. Christie (ed), *A History of the 2/29th Battalion-8th Australian Division AIF*, Stratford, Vic: High Country Publishing, 1985, pp. 65-74.

current thesis than unit histories, the better examples have been useful. They include Stanley on Tarakan or Coates on the 9th Division's operations in 1943-44, and are pertinent to this study insofar as they explain how weapons, tactics and training are actually applied in battle.³⁴ Prior to 1990 there were few useful historical works on Australia's involvement in the Second World War let alone operations in the South-West Pacific Area (SWPA), apart from the aforementioned unit histories, and the daunting official histories that will be discussed later.³⁵ The majority of Australian operational histories before 1990 were simply descriptive or narrative-based and often lacked rigorous analysis. Horner has been one exception; he has written several excellent analytical studies that have examined Australian military history at all levels and especially the operational and strategic.³⁶ His studies will prove useful in providing the 'bigger picture' under which the smaller and more gradual evolution of doctrine and training occurred.

Unlike Horner, as Blair convincingly argues, many authors have followed in C.E.W. Bean's footsteps by eulogising the actions of Australian military personnel in wartime with little critical analysis.³⁷ The lack of analysis in their works provides another rationale for the current study. As do the sweeping statements they frequently contain:

The battles of Buna, Gona and Sanananda 1942-43 were a bench-mark in the life of the Australian Army, and set it on the road to mastery of jungle warfare, from which it has barely deviated for the next 30 years.³⁸

³⁴ Peter Stanley, *Tarakan: An Australian Tragedy*, St. Leonards, NSW: Allen & Unwin, 1997; Coates, *Bravery Above Blunder*, especially the chapter devoted to training.

³⁵ One exception is Col E. G. Keogh's *The South West Pacific 1941-45*, Melbourne: Grayflower Productions, 1965, which was a standard reference for Australian officers at Duntroon and staff colleges until at least the 1970s.

³⁶ Apart from his biographies on some of the leading figures in Australian military history (David Horner, *General Vasey's War*, Carlton, Vic: Melbourne University Press, 1992; *Defence Supremo: Sir Frederick Shedden and the Making of Australian Defence Policy*, St. Leonards, NSW: Allen & Unwin, 2000 and the aforementioned biography of General Blamey), Horner has written several works on Australia's military and political dealings in World War Two. Foremost among these are *Crisis of Command*, Canberra: Australian National University Press, 1978; *High Command: Australia And Allied Strategy 1939-1945*, Sydney: Allen & Unwin, 1982 and *The Commanders*, Sydney: Allen & Unwin, 1984.

³⁷ Blair, 'An Army of Warriors', p. 23

³⁸ Lex McAulay, *To the Bitter End: The Japanese Defeat at Buna and Gona 1942-43*, Sydney, NSW: Arrow Books, 1992, p. 1. For similar sentiments see, Peter Brune, *A Bastard of a Place: The Australians in Papua, Kokoda, Milne Bay, Gona, Buna, Sanananda*, Crows Nest, NSW: Allen & Unwin, 2003, p. 117; Brune wrote on this page that 'some of the veterans of Papua were destined to be amongst the first instructors at Canungra and the instigators of a reputation in jungle fighting that sees Australia at the forefront of such campaigning to this day'. Peter Firkins, *The Australians in Nine Wars: Waikato to Long Tan*, London: Pan Books Ltd, 1973, p.373.

Judgements such as this have become widely accepted, appearing to require no further explanation or substantiation. It is one of the main contentions of this study that such statements cannot go unexamined. While it may not necessarily be incorrect, it nevertheless requires greater explanation. Many authors appear to believe that there is no need for more in-depth analysis. As such they describe the battles and record soldiers' experiences but rarely attempt to analyse systemically the reasons behind the outcomes of those battles. These texts can be categorised as narrative history and include works by historians such as Laffin and Firkins.³⁹ There is nothing inherently wrong with narrative history. In fact, some of the most moving military history texts available employ narrative or first person testimonies, such as those by Bill Gammage and Patsy Adam-Smith.⁴⁰ Indeed, the experiences of those who had previously been overlooked will inform this study as they provide a dimension that traditional military history texts do not.⁴¹ This genre is, however, unable to provide adequate answers to the question of how the Australian Army became adept at jungle operations.

In the last decade several operational works useful to this study were published. Brune's passionate *Those Ragged, Bloody Heroes* in 1991 appeared to spark a revival of interest in the New Guinea battles.⁴² Appearing in the same year was McAulay's *Blood and Iron*, also on the Kokoda campaign.⁴³ More recently numerous operational works have appeared, but – as with the literature on the First World War, which focused too often upon Gallipoli – most concentrated on 'the battle that saved Australia', Kokoda.⁴⁴ While it is laudable that historians were turning their attention to a previously neglected topic, the Papuan and New Guinea operations, few were

³⁹ John Laffin, *Anzacs at War*, London: Horowitz, 1965 and *Digger: The Story of the Australian Soldier* among other titles in a similar vein. Firkins, *The Australians in Nine Wars*. Although more scholarly than the works discussed above, the front cover of Laffin's book *Anzacs at War* includes the following statement, 'The epic story of the battle exploits that have made Australia and New Zealand a fighting legend since the tragedy of Gallipoli'; which clearly places this work in league with those 'boys own adventure' type books.

⁴⁰ Bill Gammage, *The Broken Years*, Melbourne: Penguin, 1974; Patsy Adam-Smith, *The Anzacs*, Melbourne: Nelson, 1978. More recently both Geddes and Forbes have produced commendable works in this genre. Margaret Geddes, *Blood, Sweat and Tears: Australia's WWII remembered by the men and women who lived it*, Camberwell, Victoria: Penguin, 2004 & Cameron Forbes, *Hellfire: The Story of Australia, Japan and the Prisoners of War*, Sydney: Macmillan, 2005.

⁴¹ One of the most valuable sources of material for this study are the many transcripts of interviews in the Keith Murdoch Sound Archive at the Australian War Memorial and also the Department of Veterans Affairs 'Australians At War Film Archive'.

⁴² Peter Brune, *Those Ragged Bloody Heroes: From the Kokoda Track to Gona Beach, 1942*, Sydney: Allen & Unwin, 1991.

⁴³ Lex McAulay, *Blood and Iron: The Battle for Kokoda 1942*, Sydney: Arrow Books, 1991.

⁴⁴ Fitzsimmons, *Kokoda*, 2004 & Ham, *Kokoda*, 2004 are prime examples of this tendency.

able to look beyond the 'track'. Or if they could see beyond Kokoda it was only as far as the other end of the Kokoda Trail, to the beachheads at Buna and Gona.⁴⁵ It was not until the late 1990s that the focus moved onto other battles, and this would only be temporary.

Stanley with his memorable book on the Tarakan operation, did all that a good military history text should: it objectively and analytically examined the operation – in this case that most complex of military operations, an amphibious landing – without neglecting the human costs of the battle or how the operation related to the wider Pacific campaigns.⁴⁶ The argument that the operations the Australian army were involved in during 1945 were pointless, with which many people still concur, is examined in a clearheaded and rational manner.⁴⁷ With the publication in 1999 of Coates' excellent study of the 9th Divisions' operations at Finschhafen, Sattelberg and Sio, it appeared that historians' attention had finally moved away from the Kokoda Track and possibly away from narrative history. It was not to be. Instead we have seen a resurgence of interest in the Kokoda battles.⁴⁸ Brune's book, *A Bastard of a Place*, brings together the best of his four earlier books into one major volume that appeared to be the definitive work.⁴⁹ Until, that is, more authors decided to tackle the campaign.⁵⁰ However, with the release of Phillip Bradley's work on the 7th Divisions' Ramu-Markham Valley campaigns a virtually unknown series of operations was examined in great detail.⁵¹ Also published was the comprehensive work by Coates, *An Atlas of Australia's Wars*.⁵² As the name suggests, this work consists of maps of all the conflicts in which Australia was involved, up to and including the Timor operation in 1999. Beautifully presented with excellent maps, it inexplicably fails to deal

⁴⁵ Peter Brune, *Gona's Gone! The Battle for the Beachhead 1942*, Sydney: Allen & Unwin, 1994; Lex McAulay, *To the Bitter End: The Japanese Defeat at Buna and Gona 1942-43*, Sydney: Arrow Books, 1992.

⁴⁶ Stanley, *Tarakan*.

⁴⁷ For a work that argues that the campaigns were pointless see, Peter Charlton, *The Unnecessary War: Island Campaigns of the South-West Pacific 1944-45*, South Melbourne: Macmillan, 1983.

⁴⁸ Brune, *A Bastard of a Place*, 2003; Fitzsimmons, *Kokoda*, 2004; Ham, *Kokoda*, 2004; Lindsay, *The Spirit of Kokoda*, 2002 and by the same author *The Essence of Kokoda*, Prahran, Vic: Hardie Grant Books, 2005.

⁴⁹ See Michael McKernan's review of *A Bastard of a Place* in *The Age*, Saturday, January 17, 2004, for further discussion of the enduring interest in Kokoda.

⁵⁰ Most notably Fitzsimmons and Ham in 2004.

⁵¹ Bradley, *On Shaggy Ridge*, 2004.

⁵² John Coates, *An Atlas of Australia's Wars*, Vol. VII The Australian Centenary History of Defence, Melbourne: Oxford University Press, 2001.

adequately with several of the actions in New Guinea in 1943-44, thus providing a further rationale for the current thesis.⁵³

The US treatment of the New Guinea campaigns has been even sparser than the Australian.⁵⁴ Although for the first two years of the Pacific war, Australian ground troops did the bulk of the fighting, their involvement is worth little more than a footnote as far as much of the US operational history is concerned.⁵⁵ The prime example of this is Spector's voluminous study, which makes brief references to Australia on twenty of its 600 pages, primarily with regard to MacArthur using the country as a base to support his operations.⁵⁶ Similarly, Costello's otherwise erudite work, *The Pacific War* is, at times, ill informed with respect to Australia's role. He sums up the bitter three-month long campaign by the 7th Division in the Ramu-Markham Valley area as 'two weeks...[of]...bloody hand to hand combat to win control of...Shaggy Peak (sic)'.⁵⁷ At the tactical level Eric Bergerud's work is a well-written analysis of the South-West Pacific theatre actions that devotes equal time to the experiences of the Australian combatants and as such provided valuable information for this thesis.⁵⁸

The Australian official histories contain information that were vital to this study, notwithstanding their concentration on battles to the detriment of issues such as logistics or training. As with the First World War volumes, the second series is exhaustively detailed and list virtually every operation that Australian troops participated in throughout the course of the war. From this, it will be possible to trace the gradual implementation of new training methods or weapons for combat in the jungle. While not as ebullient in their praise of the Australian fighting man as the original series, they nonetheless argue that Australia played a major role in the defeat

⁵³ A reprint of this work in 2007 redressed the oversights noted in the 2001 edition.

⁵⁴ The exception to this is the plethora of books on the USMC Guadalcanal campaign.

⁵⁵ See the comments in, Coates, *Bravery Above Blunder*, p. 4 with regard to this tendency.

⁵⁶ Ronald H. Spector, *Eagle Against the Sun: The American War Against Japan*, London: Cassell & Co., 2000

⁵⁷ John Costello, *The Pacific War*, London: William Collins & Sons, 1981, p. 402.

⁵⁸ Bergerud, *Touched With Fire*. Stephen Taaffe's *MacArthur's Jungle War: The 1944 New Guinea Campaigns*, Lawrence: University Press of Kansas, 1998 is a well-written book on a little known aspect of the Pacific War. The lack of time devoted to the Australian Army is understandable in this work; for the majority of 1944 the AIF infantry divisions were training in Queensland.

of the Axis powers.⁵⁹ This parochialism has been recognised by at least one American historian who stated that while the Australian official histories were ‘splendid’ they are ‘somewhat partisan in approach’.⁶⁰

The official histories are also problematic for reasons that arose from decisions made at the time of writing – reasons that also justify this study. One of those is, as Gavin Long stated, that ‘the series which this volume concludes is basically a history of military operations in the field’.⁶¹ This has meant that, notwithstanding the valuable role played by the five volumes of the civil series, certain aspects of the overall story of Australia at war are omitted as Long himself acknowledged.⁶² Although he was discussing the volumes of the US official naval historian, Samuel Morison, the comments by Spector are equally applicable to the Australian official history. He argued that the works were ‘strong on action, [but] they tend to slight or ignore matters of organisation, logistics, intelligence, and command and control’.⁶³ Training and doctrinal development, at least with respect to the Australian official histories, should be added to this list. As mentioned in the introduction, the primary reason that these elements have often been neglected in the past is that they are regarded as uninspiring. Rommel’s tactical daring and incisive decision making which forced the British forces back into Egypt, is more engrossing than the gradual development of effective anti-malaria treatments.⁶⁴ Or, as Callahan has aptly stated, ‘training is a very dull subject - rather like the history of university organisation and structure - important but not pulse-quickenning’.⁶⁵

⁵⁹ Long, *The Final Campaigns*, pp. 588-9, in particular, ‘restless enterprise and comradeship, both military virtues, were qualities with which the Australian soldier was richly endowed’ and that, ‘the Australian military contribution to the defeat of Germany, Italy and Japan was a big one in the years 1941, 1942 and 1943’.

⁶⁰ Bergerud, *Touched With Fire*, p. 537.

⁶¹ Long, *The Final Campaigns*, p. xv.

⁶² Long, *The Final Campaigns*, p. xv. As Long states, ‘Largely because of the failure to obtain support for technical and administrative histories of the AIF after the war of 1914-1918 no provision was made for them in this series, except for a medical history’.

⁶³ Spector, *Eagle Against The Sun*, p. 569.

⁶⁴ Barrie Pitt, *The Crucible of War, Western Desert 1941*, London: Futura, 1980, pp. 255-270; the very rapid advances of several hundred kilometres in a short space of time led to the term Benghazi derby or handicap as the opposing forces chased each other backwards and forwards across the Western Desert. Not surprisingly it makes for exciting reading. Sweeney, *Malaria Frontline*. Whereas Sweeney’s scrupulously researched work, on just as important a topic as the desert campaigns, would be far less marketable due to its subject matter.

⁶⁵ Raymond Callahan, ‘The jungle, the Japanese and the Sepoy’ (unpublished Conference Paper, Cambridge, July, 1997), pp. 4-5, quoted in Dr Tim Moreman (Symposium paper), ‘Jungle, Japanese and the Australian Army: Learning the lessons of New Guinea’, Australian War Memorial, July 2000.

Nevertheless, by tracing the evolution of Australian jungle warfare doctrine, an important gap in the current understanding of Australian military history will be filled. This lacunae is gradually being addressed as the foci of a handful of military historians has broadened to encompass more prosaic but equally important aspects such as logistics, planning, procurement, medical services, intelligence and training.⁶⁶ Notwithstanding this shift in attention more work still needs to be done, as Stanley has convincingly argued.⁶⁷ This thesis will go some way towards filling in the 'green hole' of Australian Second World War literature that he identified. If the lessons learnt on the Kokoda Track, at Milne Bay and the Beachheads had not been assimilated into Australian Army training syllabuses and training establishments, the eventual defeat of the Japanese in the SWPA would almost inevitably have come at a far greater cost and would have taken far longer.

The last decade has seen the partial filling in of Stanley's so-called 'green hole' with the publication of several useful studies on some of these seemingly mundane areas.⁶⁸ Notable among them are works on the Royal Australian Survey Corps, the Australian New Guinea Administrative Unit, and the organisation of the Australian Army; which underwent great change during the Second World War.⁶⁹ In recent years several dissertations have also helped to increase our knowledge of the Australian experience in the SWPA.⁷⁰ However, when journal articles and conference papers are examined

⁶⁶Chris Coulthard-Clark, *Australia's Military Map-makers: The Royal Australian Survey Corps 1915-96*, Melbourne: Oxford University Press, 2000; John Moremon, 'No Black Magic': Doctrine and Training for Jungle Warfare', in Peter Dennis & Jeffrey Grey, (eds) *The Foundations of Victory: The Pacific War*, The Chief of Army's Military History Conference 2003, Canberra: Army History Unit, 2004, pp.; Albert Palazzo, 'Organising for Jungle Warfare', in Dennis & Grey (eds) *The Foundations of Victory*, pp. 86-101; Sweeney, *Malaria Frontline*.

⁶⁷Peter Stanley, 'The Green Hole Reconsidered', pp. 202-211.

⁶⁸Stanley, 'The Green Hole Reconsidered', p. 206.

⁶⁹Coulthard-Clark, *Australia's Military Map-makers*; Powell, *The Third Force*; Albert Palazzo, *The Australian Army: A History of its Organisation 1901-2001*, Melbourne: Oxford University Press, 2001.

⁷⁰Shirley Lithgow, 'Special Operations: the organisation of Special Operations Executive in Australia and their operations against the Japanese during WWII, PhD (1992) ADFA; John Moremon, 'A triumph of improvisation': Australian Army operational logistics and the campaign in Papua, July 1942 to January 1943, PhD (2000) UNSW; Russell Parkin, 'Learning While Fighting: The Evolution of Australian Close Air Support doctrine 1939-1945, PhD (1999) UNSW; David Tonna, 'Wantok Warriors: an analysis of the activities of the Pacific Islands Regiment in Papua New Guinea during the Second World War, BA (Hons) ADFA, 1993; Hans Zwillenberg, 'The Logistics infrastructure of the Australian Army 1939-1945 MA (1993) ADFA. Four works on Australian Army doctrinal developments have also been written, three began as BA (Hons), the fourth is a monograph. They are John Moremon, 'Most Deadly Jungle Fighters'? Australian infantry in Malaya and Papua, 1941-43, BA (Hons) (1992) UNE; R.N. Bushby, 'Educating an Army': Australian Army Doctrinal Development and the Operational Experience in South Vietnam, 1965-72, Strategic and Defence Studies Centre: Australian National University, 1998; M.C.J. Welburn, 'The Development of Australian Army

alongside the traditional military history works, the continuing dearth of knowledge of Australia's jungle campaigns is brought into stark relief. As Stanley points out, an examination of all the issues of the *Australian Army Journal* for the years 1955 to 1960, 'a time when the Australian Army was again fighting in the tropics', shows a total of eight articles on jungle warfare and only three employing any historical background.⁷¹ Between 1948 and 1955, the *Australian Army Journal* contains only five additional articles on jungle warfare, three of them involving Second World War issues.⁷² This is mirrored by the pre-eminent military journal for British and Empire officers, the *Army Quarterly*. Between 1920, when the journal first appeared, and the outbreak of the Second World War, only three articles can be found dealing even peripherally with this subject.⁷³

In the early to mid 1950s when the Malayan Emergency was at its peak a handful of articles dealing with jungle warfare appeared in the journal and those dealt primarily with the experiences of officers who had served there.⁷⁴ The large number of articles on atomic warfare and nuclear weapons demonstrated that interest lay elsewhere in the post-war period.⁷⁵ These omissions highlight the historical lack of knowledge of the jungle campaigns and the crucial role that Australia played in them. The more scholarly publication of the Australian War Memorial appeared to be attempting to rectify the omissions of the past. Since 1982, the *Journal of the Australian War Memorial* has published approximately twenty articles dealing with aspects of the Pacific War. But even here the neglect continues, as several of these deal with the experiences of prisoners of the Japanese, while others are biographical, leaving a scant few to examine the New Guinea and island campaigns.⁷⁶

Doctrine, 1945-1964, Strategic and Defence Studies Centre: Australian National University, 1994; Michael Evans, 'Forward From the Past': The Development of Australian Army Doctrine, 1972-Present, Duntroon, ACT: Land Warfare Studies Centre, 1999.

⁷¹ Stanley, 'The Green Hole', p. 4.

⁷² Lt-Col W. J. Reinhold, 'The Bulldog-Wau Road: An Epic of Military Engineering', *Australian Army Journal*, No. 4, Dec 1948-Jan 1949; Editorial Staff, 'Sherlock of the Sixth', No. 49, June 1953; Editorial Staff, 'The Battle of Milne Bay', No. 50, July 1953.

⁷³ Lt-Col C. E. Vickery, 'Small Wars', *Army Quarterly*, Vol. Vi, no. 2, July 1923; Captain O. G. Body, 'Bush and Forest Fighting Against Modern Weapons', vol. Viii, no. 2, July 1924 and Major B. C. Denning, 'Modern Problems of Guerrilla Warfare', vol. Xiii, no. 2, Jan 1927.

⁷⁴ Major R.E.R. Robinson, 'Reflections of a Company Commander in Malaya', vol. Lxi, Oct. 1950.

⁷⁵ Stanley, 'The Green Hole', p. 4.

⁷⁶ Hiroyuki Shindo, 'Japanese air operations over New Guinea during the Second World War', *Journal of the Australian War Memorial*, No. 34, June 2001; David Stevens, 'The Naval Campaigns for New Guinea', *Journal of the Australian War Memorial*, No. 34, June 2001. *Wartime*, the official magazine

This review has focused on the broad sweep of Australian military historiography, its strengths, shortcomings and oversights. What it has revealed is that Australian military historiography too often succumbs to merely recording and chronicling battles or lives, without sufficient analysis or interpretation. This study will attempt a more difficult task: to trace the process of evolution that eventually led to an Australian jungle warfare doctrine. As we have seen, several studies have examined discrete elements of this process – for example logistics or tactical air support – but none has attempted such a broad investigation.⁷⁷ This thesis will help explain why the Australian Army came to be regarded as experts in the field of jungle warfare by 1945. It is not sufficient to state, as McAulay and Firkins have, that Australians were great jungle fighters and have been since the Second World War.⁷⁸ If left at that, eventually their extraordinary deeds may come to be doubted, as there will be no explanation as to how this expertise came about. As Reuben Potter noted when discussing the defenders of the Alamo:

If we owe to departed heroes the duty of preserving their deeds from oblivion, we ought to feel as strongly that of defending their memory against the calumnious effects of false eulogy, which in time might cause their real achievements to be doubted.⁷⁹

of the Australian War Memorial, has published a large number of articles on the Pacific War, although this publication is aimed at a more general readership.

⁷⁷ See for example, Ross Mallett, 'Logistics in the South-West Pacific 1943-1944' in Dennis & Grey, *The Foundations of Victory*, pp. 112-117, and Parkin, 'Learning While Fighting'.

⁷⁸ Firkins, *The Australians in Nine Wars*, p. 373; McAulay, *To the Bitter End*, p. 1.

⁷⁹ Reuben Potter cited in Eric von Schmidt, 'The Alamo Remembered-from a painter's point of view', *Smithsonian*, March 1986, vol 16, p. 66. Four years after the Battle of the Alamo (1836) Reuben Potter was detailed by the US government to make a survey of the site. The references to, and quotes by Potter, in von Schmidt's work are taken from that report.

Chapter 1: ‘No military knowledge of the region’: 1914-1941

On 11 September 1914, twenty-five naval troops from HMAS *Sydney* rowed ashore at Herbertshohe, south east of the port of Rabaul on the island of New Britain. Their mission was to seize the German wireless stations located nearby.¹ So began the first Australian military operation of the First World War. It was also the first to involve jungle warfare.² Although the military challenges they faced were trivial in comparison with those of 1942, the ‘hopelessly inadequate’ preparations of sections of the Australian Naval & Military Expeditionary Force (AN & MEF) would be mirrored in the early stages of the South West Pacific Campaign of the Second World War.³ This chapter will provide the background to the development of Australian Army jungle warfare doctrine and training that occurred over the course of the Second World War. It will examine the levels of Australian military knowledge of – and preparedness for – operations in the region to the north of Australia. It will also examine the standards of training, equipment and weaponry in the interwar years. The chapter will conclude with an analysis of the deployment of the 2nd AIF to the Middle East in 1940 and a discussion of its readiness for combat against the Japanese prior to its return to Australia in 1942.

On 6 August 1914, two days after the outbreak of the Great War, the Secretary of State for the Colonies sent a telegram to the Governor-General of Australia. He requested that the Australian government seize the German territories in the South West Pacific and more specifically, the wireless stations on New Britain, Nauru and the Caroline Islands.⁴ Within days a ‘hastily kitted and rudimentarily trained’ force sailed north from Sydney Harbour.⁵ Stopping for several days at Palm Island, north of Townsville, the force:

Were taken ashore nearly every day, across a shingle beach to rocky ground and bush – a terrain ill-suited to manoeuvres; but it taught them how to maintain touch in thickly-wooded country, and the lesson afterwards proved invaluable in the dense jungles of New Britain.⁶

¹ Mackenzie, *The Australians At Rabaul*, p. 50.

² C. D. Rowley, *The Australians in German New Guinea, 1914-1921*, Melbourne: Melbourne University Press, 1958, p. 2.

³ Mackenzie, *The Australians At Rabaul*, p. 31.

⁴ Ibid, p.5. A similar request was made to New Zealand with regard to the seizure of Samoa.

⁵ Michael Piggott, ‘Stonewalling in German New Guinea’, *The Journal of the Australian War Memorial*, No 12, April 1988, p. 3.

⁶ Mackenzie, *The Australians At Rabaul*, p. 29.

As they remained at Palm Island for less than a week, it is open to doubt just how well prepared the infantry could have become in such a short period. Ultimately, the minimal training did not prove costly, as the majority of the fighting was over in less than a day with fewer than a dozen casualties.⁷ In a sobering precursor to the experience of the first militia battalions deployed to Port Moresby in 1941, one of the contingents was said to be:

Unfit for tropical campaigning. Supplies of clothing and boots were non-existent or unsuitable, food supplies were deficient, there were no tents, no mosquito nets, no hammocks, and the shipboard accommodation was hopelessly inadequate.⁸

The AN & MEF, and their replacements, Tropical Force, would not see any further military action, but the enervating climate and tropical diseases, especially malaria, would cause dozens of deaths before the deployment ended in 1921.⁹ These incidents, combined with the 'experiences in Macedonia and Palestine during World War I demonstrated dramatically what malaria could do to a modern army'.¹⁰ Charles Bean would later record that 'for the [Australian] Light Horse, despite full measures against malaria, this was the hardest service of the war'.¹¹ Similarly, when the 7th Australian Division was deployed to Syria in June 1941, their rate of malarial infection increased dramatically. It would not be until the pioneering work of the Australian Army Land Headquarters Medical Research Unit in June 1943 that truly effective treatments became available, demonstrating that the Australian military in both wars was tardy in recognising the threat posed by malaria.¹² With regard to the tactical or doctrinal lessons to be taken from this deployment, it is perhaps understandable that, owing to the minor nature of the military action undertaken by the AN & MEF, little of value appears to have been recorded for future Australian Army reference.

⁷ Six men were killed in action, four wounded.

⁸ Mackenzie, *The Australians At Rabaul*, p. 31. Most of this contingent was not landed with the AN & MEF, but the supply of equipment and clothing appropriate to the climate continued to be a problem.

⁹ Piggott, 'Stonewalling in German New Guinea', p. 8.

¹⁰ Sweeney, *Malaria Frontline*, p. 10.

¹¹ C.E.W. Bean, *Anzac To Amiens*, Canberra: Australian War Memorial, 1946, p. 502.

¹² The reasons for this are difficult to understand, as Sweeney demonstrates. As long ago as Hippocrates the fevers associated with malaria had been identified, and basic but effective treatments existed from the 17th century onwards. See Sweeney, *Malaria Frontline*, pp. 11-13. See also Mackenzie who commented that 'it is somewhat strange...that no reference appears to have been made to it [the newly established Institute of Tropical Medicine in Townsville] for medical personnel until comparatively late in the campaign'. Mackenzie, *The Australians At Rabaul*, p. 364. (The Japanese Army paid even less attention to anti-malarial measures and suffered even more grievously as a consequence during the SWPA campaigns.)

‘The years that the locusts ate’: The inter-war period

Like most nations engaged in the Great War Australia spent much of the following two decades attempting to recuperate from war’s legacies and hoping there would be no repetition. As Grey has argued, the ‘war to end wars had been fought and won, and military affairs could safely be accorded a minor place in the nation’s concerns’.¹³ Defence spending was drastically reduced, as was the size of all three services.¹⁴ After the deaths of 60,000 men, the turmoil of the conscription referenda, and the prohibitive wartime expenditure, Australian ‘governments saw few votes in defence issues’.¹⁵ Public anti-military and anti-conscription sentiment would continue throughout the next twenty years, further explaining the in-attention paid by successive governments to the defence of Australia.¹⁶ The one exception to this was ‘the RAN and the development of the naval base of Singapore [which] attracted the lion’s share of attention and finances’ for much of the inter-war period.¹⁷ On the international stage, post-war conferences including the Imperial Conference of 1921 and especially the Washington Conference of the same year, discussed various issues of disarmament.¹⁸ After the ‘naval reductions were agreed upon’ at Washington, Australia almost immediately began its own military reductions.¹⁹ In consequence, it is difficult to fault Palazzo’s statement with regard to the Australian Army, that 1920 – that is before the cut-backs – was the ‘high-water mark for the interwar institution’.²⁰

For much of the interwar period Australian defence policy continued in a similar vein to that which had existed prior to the Great War, with the ‘ultimate reliance on the British Navy’.²¹ This reliance most clearly manifested itself in the British naval base at Singapore. As Cochrane has argued:

¹³ Jeffrey Grey, *The Australian Army, Vol I, The Australian Centenary History of Defence*, South Melbourne: Oxford University Press, 2001, p. 72.

¹⁴ Gavin Long, *To Benghazi, Australian In The War Of 1939-1945*, Vol I (Army), Canberra: Australian War Memorial, 1961, pp. 2/3.

¹⁵ Jeffrey Grey, *A Military History of Australia*, Cambridge: Cambridge University Press, 1999, p. 119.

¹⁶ Grey, *A Military History of Australia*, p.120.

¹⁷ *Ibid*, p. 122.

¹⁸ The Washington Conference is best remembered for the limitations it placed on the size of naval fleets and vessels.

¹⁹ Long, *To Benghazi*, p. 4.

²⁰ Albert Palazzo, *The Australian Army*, p. 101.

²¹ Long, *To Benghazi*, p. 10. As Palazzo, ‘Organising for Jungle Warfare’ p. 87, has argued, the Australian military was not truly independent in this period given that ‘it was one branch of an imperial association whose members subscribed to common military policies and principles’.

After the immense cost of World War I, the Singapore strategy had great appeal to Australian governments keen to rein in defence expenditure. An imperial system of defence was cheaper and far more feasible than self-reliance.²²

The need for a 'Singapore strategy' to provide a bulwark against Asia can only be explained when we recognise which powers were believed to pose a threat to Australia. The 19th century fear of the 'yellow peril' had never completely abated, and indeed increased with the Japanese victory in the Russo-Japanese War of 1904-5.²³ The wartime alliance between Britain and Japan alleviated these fears somewhat but with that treaty terminating in 1920, the fears of a powerful Japanese military increased.²⁴ Within eighteen months of the end of the Great War, the Minister for Defence convened a meeting of the most senior Australian Army generals. The conference moved extremely quickly and within weeks released its report. It emphatically stated that 'the Empire of Japan remains therefore, in the immediate future, as the only potential and probable enemy'.²⁵ The government accepted this argument, and the recommendations of the report, but little effort would be made to follow in-principle support with concrete action.²⁶

Two years later, the resolutions of the Imperial Conference of 1923 would see the 'basic principles of Australian defence policy...between the wars' adopted; namely, reliance upon a naval base constructed at Singapore that would 'service the main British fleet, offering a deterrent to the Japanese such that they could not contemplate war'.²⁷ Soon 'the Singapore strategy had become an article of faith' and justification for the continued minimal levels of defence expenditure.²⁸ With strong British Admiralty influence over the Australian Navy, combined with ongoing Australian reliance upon Britain for intelligence about our region and Japanese intentions in the

²² Peter Cochrane, *Australians at War*, Sydney: ABC Books, 2001, p. 89.

²³ David Horner, *High Command: Australia And Allied Strategy 1939-1945*, Sydney: George Allen & Unwin, 1982, p. 1.

²⁴ These fears were exacerbated by the terms of the Versailles Treaty, which were very beneficial to Japan. See John Robertson, 'The Distant War: Australia and Imperial Defence, 1919-41', pp. 223-244, in M. McKernan & M. Browne (eds), *Australia Two Centuries of War & Peace*, Sydney: Allen & Unwin, 1988.

²⁵ AWM1, item 20/7, 'Report on the Military Defence of Australia by a Conference of Senior Officers of the Australian Military Forces 1920', p. 4.

²⁶ Grey, *The Australian Army*, pp. 73-4.

²⁷ Horner, *High Command*, p. 2.

²⁸ Grey, *The Australian Army*, p. 82.

Pacific, this inability to see beyond the Singapore strategy is perhaps understandable.²⁹

This is not to suggest that acceptance of the policy was universal. Almost from the day it was instituted Australian Army leaders raised doubts about several of its premises.³⁰ The Australian Section of the Imperial General Staff also voiced their qualms about the efficacy of the strategy in reports compiled in 1930 and revised in 1932.³¹ These reports laid out several problems with the Singapore strategy, and reasons why the Royal Navy would find it difficult to fulfil all the obligations of Imperial defence, particularly those in the Indian and Pacific Oceans. However, no alteration in Australian government thinking occurred after the publication of these reports. Several articles written by Australian officers were also published in the pre-eminent British military journal the *Army Quarterly*, arguing that the reliance upon Singapore and a British fleet based there was fatally flawed.³² In a highly prescient statement, Lt-Col Sturdee at Army Headquarters in 1933, told senior officers that the Japanese were our most likely threat, that in the event of war they would act quickly and would:

All be regulars, fully trained and equipped for the operations, and fanatics who like dying in battle, whilst our troops would consist mainly of civilians hastily thrown together on mobilisation with very little training, short of artillery and possibly of gun ammunition.³³

At the last Imperial Conference before the Second World War, in 1937, the British Chiefs of Staff finally admitted as much. They stated that the strength of any fleet sent to the Far East 'must be governed by consideration of our home requirements...[and

²⁹ Margot Simington, 'The Southwest Pacific Islands in Australian Interwar Defence Planning', *Australian Journal of Politics and History*, Vol XXIII, No. 2 August 1977, pp. 173-5.

³⁰ In particular the Inspector-General of the Army, General Chauvel, who wrote a yearly report to Parliament until he retired in 1930. Each of these contained his criticisms of the policy and the reasons why he believed it was flawed.

³¹ AWM54, 910/2/4, 'Appreciation of Australia's position in the case of war in the Pacific', by Australian Section, Imperial General Staff, March 1930. Revised to 23rd March 1932.

³² Colonel J. D. Lavarack, 'The Defence of the British Empire, with special reference to the Far East and Australia', *The Army Quarterly*, Vol XXV, No 2, January 1933, pp. 207-217 and Major H. C. H. Robertson, 'The Defence of Australia' *The Army Quarterly*, Vol XXX, No. 1, April 1935, pp. 15-33.

³³ D. M. Horner, 'Lieutenant-General Sir Vernon Sturdee: The Chief of the General Staff as Commander', in David Horner (ed), *The Commanders: Australian Military Leadership in the Twentieth Century*, Sydney: Allen & Unwin, 1984, pp. 146-7. (The quote was taken from a lecture Sturdee gave regarding the 'Plan of Concentration' [for the defence of Australia].)

that Britain] must keep sufficient strength in home waters to neutralise the German Fleet'.³⁴

As a direct corollary of the fixation upon the Singapore strategy, and the commensurate lack of spending on the home forces, the outbreak of war in 1939, as Grey suggested 'found the Australian Army less militarily capable than it had been in 1919'.³⁵ From the large, well-trained and combat experienced force that Australia had in the field in November 1918, only 1,600 Permanent Army and 31,000 Citizen Forces' personnel existed in 1922.³⁶ During the Depression these figures would be reduced even further. Exacerbating the difficulties for the army was ongoing uncertainty about its role in the defence of Australia. Gow has argued that between the wars the army assumed that continental defence 'in the case of invasion' was necessary due to its belief in the fallacy of the Singapore strategy.³⁷ Unfortunately for the army, the Australian Navy and successive governments, wholeheartedly believed in the protection afforded by Singapore; this meant that a small army needed to repel limited raids – not one capable of defeating an actual invasion force – was all that was required.³⁸ Thus the army was forced to construct and man numerous coastal defensive positions, instead of building up the mobile multi-divisional force that was its preferred option.

With these decisions over the course of the 1920s, the development of the army stagnated, notwithstanding its best efforts. In an attempt to improve the quality of training, in 1920 the army had 'established a Central Training Depot at Liverpool for the training of its instructors'.³⁹ Six months later it would be closed due to budget cuts and would not reopen until 1939. Throughout the interwar period members of the Citizen Militia Forces were only required to attend six-eight days continuous camp and a further six days at their home unit a year.⁴⁰ This was clearly not sufficient to

³⁴ Quoted in Grey, *A Military History of Australia*, p. 124.

³⁵ Grey, *The Australian Army*, p. 80.

³⁶ Palazzo, *The Australian Army*, p. 104.

³⁷ Neil Gow, 'Australian Army Strategic Planning 1919-39', *Australian Journal of Politics and History*, Vol XXIII, No. 2, August 1977, p. 169.

³⁸ Gow, 'Australian Army Strategic Planning 1919-39', pp. 170-1. In 1932 the Scullin government formalised this stance and began a program of coastal defence construction, most of which were to be manned by the army.

³⁹ Palazzo, *The Australian Army*, p. 95.

⁴⁰ Grey, *A Military History of Australia*, p. 134.

provide an adequately trained formation that would form the nucleus of an expanded force, in the event of war. Training of officers was equally derisory, with yearlong exchanges to the British or Indian Armies the only real opportunity to gain useful experience.⁴¹ In the early years of the Second World War, General Mackay would say of the 1920s and 1930s, that the:

Training of officers, except in exercises without troops, had been confined to movements of the platoon, the company, the battalion and occasionally a brigade. Very few officers in Australia had ever moved a battalion.⁴²

A post-war article by the Directorate of Military Training would elaborate on these points and admit that under the militia system of the interwar years ‘formations and units were too weak to provide useful experience for the leaders and not much more than elementary training for troops’.⁴³ The lack of funding also had negative consequences in relation to equipment and weaponry for the army. As Kuring stated:

Australian infantrymen entered World War II looking as if they had just stepped out of World War I. Little had changed in their equipment, organisation, tactical thinking or training during the period 1919-1939.⁴⁴

These deficiencies had direct consequences once war broke out, and it would be fortuitous that it was a year before the Australian Army was called on to fight in the Western Desert.⁴⁵

‘Little Australian interest in Papua and New Guinea’: Japan and jungle warfare

It is therefore understandable that a chronically under-resourced army, combined with a defence policy almost wholly reliant upon the supposed guarantee of protection afforded by Singapore and the Royal Navy, meant that the possibility of the army having to fight in the islands to the north of Australia was barely contemplated. With Japan identified as the most likely threat to Australia it is, however, curious that more

⁴¹ Ibid, pp. 137-8. As Grey highlighted, the lack of opportunities saw many excellent Australian officers leave the army for civilian life during this period, while others transferred permanently to the British or Indian Armies.

⁴² AWM, 3DRL6850, Papers of General Mackay, item 59, ‘Notes on Training of Officers’, n.d, (probably 1941), p. 5.

⁴³ Directorate of Military Training, ‘The Basis for Expansion for War’, *Australian Army Journal*, Vol 6, May 1950, p. 7.

⁴⁴ Ian Kuring, *Redcoats to Cams: A History of Australian Infantry, 1788-2001*, Loftus, NSW: Australian Military History Publications, 2004, p. 210.

⁴⁵ A report written in 1945 would list several steps with regard to training that should be taken in the event of a future conflict ‘if the confusion which occurred in the early stages of the war is to be avoided’. See AWM54, 937/1/2, ‘Directorate of Military Training. Account of Activities, 1939-1945’, Part III Recommendations, p.1.

action did not occur. In fact, as Wigmore stated, by the 1930s, ‘only cursory measures had been taken by the Army to gain knowledge of the Japanese language and to acquire first-hand experience of Japan and the Far East generally’.⁴⁶ One of the few measures undertaken by the army – approximately a month before the outbreak of war in Europe – was to request from the British War Office copies of the document ‘Notes on the Japanese Army 1939’.⁴⁷ Three hundred of these would be printed in early 1940, with that number eventually being increased to 2,000.⁴⁸ Based on observations of the ‘Sino-Japanese hostilities’ this large document was a revised version of the ‘Handbook of the Japanese Army, 1928’ – also supplied by the British.⁴⁹ However at the same time – mid-1939 – the Australian delegation to the Wellington Defence Conference rejected the idea that ‘raiding forces’ in the islands east of New Guinea could pose a threat to trans-Tasman trade, let alone the Australian seaboard.⁵⁰ It would not be until after the fall of France and the Low Countries in June 1940, that Australian policies with regard to the colonial possessions of those nations, as well as other South West Pacific islands, became subjects for discussion.⁵¹ By that stage of course, the bulk of the Australian Army was in the Middle East and Britain.

When Nazi Germany became the enemy from September 1939, it was assumed that Australian forces would fight alongside Britain in Europe and the Middle East, as they had in the First World War. Few people in the military or government, therefore, appear to have felt the need to prepare for a contingency that, at the time, did not exist. The little information that could have been gleaned from the AN & MEF

⁴⁶ Lionel Wigmore, *The Japanese Thrust, Australia in the War of 1939-45*, Vol IV (Army), Canberra: Australian War Memorial, 1957, p. 10.

⁴⁷ NAA, MP729/6, item 40/401/86, ‘Notes on the Japanese Army’.

⁴⁸ Very few references to this document are found in war diaries, and virtually none below the level of Division. As it was suggested that at least 200 copies of it should be allocated to each Military District in Australia this is curious. With Australian forces hastily preparing for movement to Europe and the Middle East, it is perhaps not surprising that little mention of the document occurs until the bulk of the AIF returned to Australia. By then, of course, the desire was for more up to date material, based on the supposed lessons of Malaya.

⁴⁹ Ibid, foreword. The original document was 256 pages long. Several chapters – dealing with administration, command, staffs and mobilisation – were removed at the request of the Australian Army, reducing its length to 207 pages.

⁵⁰ Simington, ‘The Southwest Pacific Islands in Australian Interwar Defence Planning’, p. 173. Simington drew most of her information for this section from NAA, MP729/6 16/401/537, ‘New Zealand Agenda DCI Defence of South Western Pacific. Notes by the Australian Delegation on the Paper presented by the New Zealand Delegation’, n.d. It is clear from this document that the threat discussed was from Japan.

⁵¹ Ibid, p. 176.

experience of the First World War seems to have been long forgotten. According to McCarthy:

There was little real general Australian interest in Papua and New Guinea before the [Second World] war...and virtually no military knowledge of the region and no appreciation of the tactical and logistical problems it would pose in war.⁵²

As such there would also appear to have been no attempt to obtain information on operating in tropical or jungle environments. Wigmore elaborated on McCarthy's argument:

In the field of tactics no effort appears to have been made to gain experience of and develop doctrines about the kind of tropical bush warfare that was likely to occur in conflict with Japan.⁵³

Although it is inarguable that relatively little information was obtainable via traditional sources, several less regular avenues existed. One suggestion, that 'valuable experience might have been gained by attachment of officers to British garrisons in tropical Africa or Burma, by sending observers to China, or by exercises in suitable areas of Australia or New Guinea', was not acted upon, at least not by Australia.⁵⁴ Over the course of the 1920s and 1930s, however, several British Army officers were despatched as observers for periods of up to a year with the Japanese Army.⁵⁵ One Captain Kennedy in particular wrote insightful articles on the 'extraordinary powers of endurance...intense patriotism' and fighting abilities of the Japanese soldier in their campaigns in China.⁵⁶

When war broke out, the two most important tactical manuals available to the Australian Army were *Field Service Regulations* (1935) and *Infantry Training* (1937).⁵⁷ Until the 1950s the majority of Australian Army doctrinal material was

⁵² Dudley McCarthy, *South-West Pacific Area-First Year: Kokoda to Wau, Australia in the War of 1939-1945*, Vol V (Army), Canberra, Australian War Memorial, 1959, p. 41.

⁵³ Wigmore, *The Japanese Thrust*, p. 10.

⁵⁴ Ibid, p. 10.

⁵⁵ Brevet Major B. R. Mullaly, 'The Evolution of the Japanese Army', *The Army Quarterly*, Vol XVI, No 1, April 1928, pp. 52-64. (Mullaly served as an advisor to the Imperial Japanese Army in 1927.)

⁵⁶ Captain D. M. Kennedy, 'The Japanese Army as a Fighting Force', *The Army Quarterly*, Vol XXX, No. 2, July 1935, pp. 238-9. (Although it is impossible to prove, much of the training manual supplied by the British Army to 8th Division in Malaya, 'Tactical Notes For Malaya' appears to have come from Kennedy's works. This manual will be discussed in greater detail in the following chapter.)

⁵⁷ Both these manuals were British War Office publications, reprinted for the Australian Army. It would not be until the creation of *Infantry Minor Tactics* in 1941 that an Australian manual was available. The 36-page supplement to *IT37: Tactical Notes for Platoon Commanders* was also

British, leavened with some Australian and US manuals.⁵⁸ Although it has been argued that *FSR* and *IT37* had ‘stood the Army in good stead’ it is beyond doubt that, with regard to jungle warfare, these manuals ‘did not, in any manner, constitute a well established doctrinal base for conducting brigade and battalion operations’.⁵⁹ Nor were they of much use at the sub-unit level, as would be demonstrated when war broke out in the Pacific. As early as 1909, the inability of *FSR* – the doctrinal and tactical ‘bible’ of both the British and Australian Army – to address adequately real world scenarios had been identified.⁶⁰ As Moreman has argued, *FSR* ‘stressed that the principles of war were unchanging and could be applied by trained officers and NCOs to all military situations’.⁶¹ Although updated at regular intervals since it was first published after the Boer War, *FSR* in 1939 reflected two constants – firstly the vast experience of the British Army in ‘policing’ the Empire, and secondly the mostly static warfare which characterised operations on the Western Front in 1914-18. Although Liddell-Hart and J.F.C. Fuller can rightly be regarded as visionaries in the field of armoured warfare, this was not strongly evidenced in *FSR*. Discussion of how a commander should control his artillery in a ‘trench-to-trench attack in position warfare’ suggested that little notice had been taken of either the more fluid operations of April to October 1918 or the interwar Armoured Fighting Vehicle (AFV) tactical innovations.⁶²

published in 1941, reflecting the lessons of the early Second World War experiences. (For brevity the manuals will be referred to as *FSR* and *IT37* henceforth.)

⁵⁸ Michael O’Brien, *Australian Army Instructional Tactical Books & Pamphlets: A Bibliography*, Loftus, NSW: Australian Military History Publications, 2002, p. 1.

⁵⁹ John Moremon, ‘No ‘Black Magic’: Doctrine and Training for Jungle Warfare’, in Dennis & Grey, *The Foundations of Victory*, p. 78 and John Sholl, ‘Points Noted and Lessons Learnt: The Nature and Determinants of Australian Army Tactical Changes, 1941-1943’, BA (Hons), ADFA, 1991 p. 34.

⁶⁰ Moremon, ‘No ‘Black Magic’, p. 77 and Chris Coulthard-Clark, *A Heritage of Spirit: A Biography of Major-General Sir William Throsby Bridges*, Melbourne: Melbourne University Press, 1979, pp. 85-6. Bridges argued that *FSR* too often dealt with abstract principles and provided too few concrete and applicable examples. This issue will be addressed at greater length shortly, and in chapter two.

⁶¹ Tim Moreman, ‘Jungle, Japanese and the Australian Army: learning the lessons of New Guinea’ paper presented to the *Remembering the War in New Guinea* Symposium, Australian National University, 19-21 October 2000, on the Australia-Japan Research Project/Australian War Memorial website. [No pagination]

⁶² *Field Service Regulations*, Volume III, Operations – Higher Formations, p. 41. A brief examination of General Monash’s operational plans for the Battle of Hamel in July 1918 would demonstrate the possibilities of all-arms combined – and co-ordinated – action. When the Second World War began in 1939, the current version of *FSR* was the 1935 edition, so the more modern developments of the Spanish Civil War (1936-39) including the co-ordination of infantry, field artillery and armoured formations with tactical air support, by the Germans in particular, do not appear.

While these oversights with regard to conventional warfare, were, by themselves, major problems, the treatment of 'irregular' conflict in *FSR* was, at best, cursory. Only eight of its 256-pages were devoted to 'Special Types of Warfare'.⁶³ The sub-section devoted to 'Forest and Bush Warfare' was even shorter; being only three pages long and would prove of limited value to those wanting insights into operations in tropical or jungle terrain. It was also very general, stating that in the jungle:

Visibility is very restricted...keeping of direction presents great difficulty [and that the] handicaps of a tropical climate – heat, heavy rains, unhealthy conditions – have often to be taken into account.⁶⁴

The additional suggestion that if you were fighting a 'savage enemy' then the Colonial Office pamphlet 'Notes on Training in Bush Warfare' should be used in conjunction with the appropriate section of *FSR* would have provided little assistance for the type of combat in Papua or New Guinea in 1942-3.⁶⁵ Although *IT37* contained a seven-page chapter on 'Fighting in Close Country, Woods and Villages' it also reflected colonial military experiences over the last fifty years. It did not envisage what combat between two professional armies in jungles and tropical locales would entail.

Several other Colonial Office pamphlets existed; most, as Moreman stated, were produced for units such as the Burma Military Police or the Royal West African Frontier Force.⁶⁶ This is not to suggest that no suitable manuals existed, for at least two recent publications were available. The first, although dealing with what today would be called counter-insurgency tactics, was especially relevant, as it examined operations in terrain over which Australian forces would soon be fighting the Japanese. This was the Dutch manual 'Voorschrift Voor De Uitoefening Van De Politiek-Politioneerle Taak Van Het Leger (VPTL)'.

In 1937, the Dutch Army had published a 160-page manual derived from their decades of service in policing and fighting insurgents and nationalist forces

⁶³ *Field Service Regulations*, Volume II, Operations – General 1935, London: War Office, 1935 (Reprint 1939), pp. 176-186. Volume I dealt with 'Organisation and Administration' while Vol III covered 'Operations – Higher Formations'.

⁶⁴ *Ibid*, p. 184.

⁶⁵ *Ibid*.

⁶⁶ Moreman, 'Jungle, Japanese and the Australian Army', p. 2. Most of these pamphlets were relatively brief, between eight and twenty-five pages.

throughout the Dutch East Indies. This manual, VPTL, covered numerous aspects of operations in jungle terrain.⁶⁷ Although created to help the Dutch Army engage in operations below the level of actual war fighting, it contained numerous relevant sections. From ambush and patrol tactics in the jungle, river crossings and the movement of riverine forces, to the problems of logistics and medical services in the tropics, the manual would have been extremely useful to the Australian Army when, in 1941, they were searching for information on operating in the tropics. With 23rd Brigade, 8th Division being deployed to Ambon and Timor in 1941, and serving alongside Dutch troops, the relevance of this manual is self-evident.⁶⁸ Yet as Simington has shown, it was not until 1941 that Australia made an attempt to ‘investigate coordination of defence with the Netherlands East Indies’.⁶⁹ It is therefore highly unlikely that a document such as this would have been sought, presuming that its existence had been known.

The other manual was also a recent creation. The United States Marine Corps *Small Wars Manual* was an extremely long and detailed work.⁷⁰ Based upon the vast experience that the USMC had built up over decades of amphibious and anti-guerilla operations in the jungles of Central and South America, this manual was similar to the Dutch VPTL. Its relevant sections included ones on patrols and ambushes, protection on the move, hygiene, re-supply and the use of pack horses in mountainous terrain. Although neither of these manuals envisaged the scale or severity of the combat that would be a feature of operations in the South West Pacific Area, they contained much information that could have assisted Australian forces after they were deployed to a tropical theatre in February 1941. Due to the continuing reliance upon the Singapore strategy – and after the outbreak of war, the demands of an active theatre in the Middle East – virtually no attempts appear to have been made to acquire information about the islands of the South West Pacific and the challenges an army would face if called upon to operate in that region.

⁶⁷ ‘Guidelines for the implementation of the Army’s Counter-Insurgency Tactics (Police Actions)’, Batavia-Centrum, 1937. [My thanks to the Army Museum in Delft, the Netherlands, for supplying a copy of this manual, and to Dr Richard Chauvel for his assistance in its translation.]

⁶⁸ As a recently created manual it is, of course, possible that the Dutch Army would not have been willing to allow distribution of it to any other nations, even allies.

⁶⁹ Simington, ‘The Southwest Pacific Islands in Australian Interwar Defence Planning’, p. 177.

⁷⁰ *Small Wars Manual*, USMC, 1940 (Revised version of 1935 edition). The 1940 version is 492 pages in length.

‘We had axe handles for rifles’: 1939-1941

The declaration of war on 3 September 1939 was met with a muted response, in contrast to the unbridled enthusiasm of 1914. Similar problems to 1914 again faced the Australian Army, most of them related to the lack of interwar funding and inadequate planning. Although it is correct to acknowledge that from 1935 onwards there was an ‘increased emphasis upon defence’ it is equally true that the ‘army would go to war fundamentally unprepared on all levels’.⁷¹ In fact the comment by McNicoll that ‘Australia passed the first year of the Second World War in a state of uncertainty and, at times, confusion’ is, if anything, an understatement.⁷² While few military personnel would have agreed that an ‘Australian [soldier] did not need to begin his military training until war began’, that was effectively the situation that faced the Australian Army prior to the embarkation of the 6th Division for the Middle East in early 1940.⁷³ It had been hoped that at least 50% of the volunteers for the 2nd AIF would be militia personnel, with a further 25% having had previous service.⁷⁴ In reality the number was closer to 25% militia, meaning that an unexpectedly high percentage had no previous service.⁷⁵ With the Central Training Depot only being re-established in 1939, many new units were unable to receive the benefit of a visit by the overstretched Australian Instructional Corps. This further limited the standard of training imparted to the new recruits.

One of the main difficulties in training and equipping the 2nd AIF – quite apart from the aforementioned shortages due to long running government parsimony – was the decision to form, train and equip the AIF and the militia at the same time. This need,

⁷¹ Grey, *A Military History of Australia*, p. 136; Palazzo, *The Australian Army*, p. 134.

⁷² Major-General R. R. McNicoll, *Ubique: The Royal Australian Engineers 1919-1945, Teeth & Tail*, Canberra, ACT: Corps Committee of the Royal Australian Engineers, 1982, p. 18.

⁷³ Long, *To Benghazi*, p. 3. (Long was discussing the comments by a Member of Parliament in the 1920s who had used that argument to support large cutbacks in military spending.)

⁷⁴ AWM52, 1/5/12, 6 Australian Division General Staff Branch (6 Aust Div GS Branch), Oct-Dec 1939, Appendix A, p. 2.

⁷⁵ The reasons behind the low rate of militia enlistments, and in fact the wider question of the two army system that existed in Australia during the Second World War, the all volunteer 2nd AIF, and the part-volunteer, part-conscript Militia are far too large to be examined in this study. Briefly, as Palazzo, *The Australian Army*, p. 140 has stated: ‘the Defence Act limited the employment of the existing military force, both the militia and the permanent forces, to the defence of Australia’. Despatching an expeditionary force to assist Britain in Europe or the Middle East clearly fell outside those parameters. Only those issues that touch on the training, equipping and arming of the 2nd AIF will be addressed in this study. For further information on the Militia-AIF conundrum see the relevant entries in Grey, *The Australian Army* and *A Military History of Australia*, Long, *To Benghazi* and *The Six Years War* and Palazzo, *The Australian Army*.

as Palazzo has identified, ‘to maintain two armies...placed an enormous strain on the provision of equipment’.⁷⁶ Understandably, already formed militia units were reluctant ‘to release officers and NCOs, in view of their own training commitments’.⁷⁷ Similarly, as they had been ordered to train their own personnel they were loathe to surrender the few rifles, machine-guns or mortars they had to the newly created AIF units. The recollections of William Booth of the 2/3rd Battalion who stated that upon enlistment at Ingleburn, NSW in September 1939 the recruits were issued with ‘axe handles, wooden handles, for rifles.’ were not unique.⁷⁸ For 17 Brigade training at Puckapunyal, Victoria, the situation was particularly dire, and it would be October before they received their first issue of 1915-era .303 rifles.⁷⁹ Most units would find that weapons, uniforms and equipment were of First World War vintage, some even being of 1908 pattern.⁸⁰

The shortages meant that when the first troopships sailed in late January 1940, the majority of 6th Division’s soldiers would have become accustomed to ‘route marches, squad drill, lectures, and fatigues’, but had little idea of platoon tactics, let alone company or battalion manoeuvres.⁸¹ Virtually no unit had seen the new Bren light machine-guns, only some had handled its predecessor, the First World War Lewis, almost none had used a hand grenade, and most units had to pretend that tree limbs or stove pipes scrounged from the kitchen were mortar tubes and artillery pieces.⁸² Nor were the engineers or artillery any better resourced than the infantry. 2/8th Field Company, Royal Australian Engineers had to improvise with picks and shovels as their only engineering equipment for several months, an ongoing complaint that would later lead one of their officers to state ‘that the unit was fully equipped on the

⁷⁶ Palazzo, *The Australian Army*, p. 141.

⁷⁷ AWM52, 1/5/12, Oct-Dec 1939, Appx A, p. 6.

⁷⁸ Department of Veterans Affairs, Australians At War Film Archive, (hereafter DVA, AAWFA) William Booth, 2/3rd Battalion, Archive No. 1420, Transcript, time: 6.13.00.00.

⁷⁹ AWM52, 1/5/12, Oct-Dec 1939, Appx A, p. 6.

⁸⁰ W. P. Bolger & J. G. Littlewood, *The Fiery Phoenix: The Story of the 2/7 Australian Infantry Battalion 1939-1946*, Parkdale, Vic: 2/7 Battalion Association, 1983, p. 10.

⁸¹ F. W. Speed (ed), *Esprit De Corps: The history of the Victorian Scottish Regiment and the 5th Infantry Battalion*, Sydney: Allen & Unwin, 1988, p. 161. 2/5th Bn (Bn) was a 17 Brigade (Bde) unit and therefore sailed on the second, not the first convoy in January 1940. Nevertheless, the level of training in January across the division was similarly low.

⁸² DVA, AAWFA, Raymond Baldwin, 2/27th Bn, Archive No. 1214, Transcript, time: 2.17.30.00.

day the war ended' and on no occasion prior to that day.⁸³ For the 2/2nd Field Regiment:

Branches of trees laid on the ground represented guns and troops responded to the "gun" drill with enthusiasm, though to the many who had never seen a gun it must have been very bewildering.⁸⁴

As Grey has shown, the effect of these shortages, and the need to despatch the first convoy to the Middle East, meant that, 'any force sent overseas would have to be equipped after its arrival'.⁸⁵ Nonetheless, after the fall of France in June 1940 – and the loss by the British Expeditionary Force (BEF) of virtually all its equipment at Dunkirk, followed by the subsequent urgent need to re-arm Britain – shortages for forces in the Middle East continued for more than a year.⁸⁶

Upon arrival in Palestine and Egypt, training and equipping began in earnest. Many officers and men were sent to specialist British Army Schools to obtain the skills it had not been possible to acquire before departure from Australia.⁸⁷ Over the course of 1940, the units of the 6th Division gradually received their required allotments of weapons, equipment and vehicles. For the 2/1st Battalion in Palestine this did not occur until 3 May 1940, when they received Bren guns, Boyes anti-tank rifles and 2-inch mortars.⁸⁸ These were small in number and did not bring the unit up to full war establishment. As the first artillery regiment to arrive in the Middle East with the 6th Division, the 2/1st Field Regiment was relatively well equipped by May 1940. When its sister regiment, the 2/2nd Field Regiment arrived later that month, with no equipment at all, the situation changed by the simple expedient of an order to transfer half its guns, vehicles and equipment to the 2/2nd.⁸⁹ For many units, 'scrounging' – either from allied units, the enemy after their capture, or from detritus on the

⁸³ Reginald Davidson, *With Courage High: The History of the 2/8th Field Company Royal Australian Engineers, 1940-1946*, Melbourne: 2/8th Field Company, RAE Association, 1964, p. 5.

⁸⁴ W. Cremor (ed), *Action Front: The History of the 2/2nd Australian Field Regiment Royal Australian Artillery AIF*, Melbourne: 2/2nd Field Regiment Association, 1961, p. 9.

⁸⁵ Grey, *The Australian Army*, p. 109.

⁸⁶ Long, *To Benghazi*, p. 88.

⁸⁷ *Ibid*, p. 72.

⁸⁸ E. C. Givney (ed), *The First At War: The story of the 2/1st Australian Infantry Battalion 1939-45, The City of Sydney Regiment*, Earlwood, NSW: The Association of First Infantry Battalions, Editorial Committee, 1987, p. 39.

⁸⁹ E. V. Haywood, *Six Years in Support: Official History of 2/1st Australian Field Regiment*, Sydney: Angus & Robertson, 1959, p. 15.

battlefield – became the only way to ensure they could function adequately.⁹⁰ The story would be the same for the majority of the units of 6th, 7th and 9th Divisions when they arrived in the Middle East. These shortages caused problems that continued throughout 1940 as Johnston has highlighted:

The paucity of equipment, and especially of weapons, was one of the main reasons that training was monotonous and disappointing for those who so eagerly enlisted in the early years of the war.⁹¹

The fall of France in June 1940 had further wide-reaching repercussions, some of which also affected the Australians in the Middle East. When General Blamey arrived in Palestine on 20 June he came ‘not to the training area of a force intended for the Western Front, but to a theatre of operations in which [the] troops might be called on to go into action at short notice’.⁹² A further problem caused by the fall of France – and the entry of Italy into the war – was that the 6th Division was now required to provide ‘so many patrols, duties, picquets and guards, that nothing else was done for weeks’.⁹³ Over the course of 1940, however, all units of the division were able to progress through company, battalion, brigade and divisional exercises.⁹⁴

Combined with these various problems was the fact that none of the 6th, 7th or 9th Divisions was complete. Although better off than the 7th Division, and its ‘fluid composition’, the 6th was nonetheless short of two artillery regiments, most of its engineers and pioneers and its machine-gun battalion.⁹⁵ By the time it went into battle in January 1941, the 6th Division was whole. The other divisions were not so fortunate, with 7th and 9th having battalions and brigades interchanged – the 7th not being complete until May 1941, a month before they went into action in Syria. For a period some of their units would train in Britain, while their sister battalions remained

⁹⁰ Mark Johnston, *At The Front Line: Experiences of Australian Soldiers in World War II*, Cambridge: Cambridge University Press, 1996, p. 110.

⁹¹ Johnston, *At The Front Line*, p. 109. Johnston in fact argues that the ‘Australian equipment position in the Middle East’ did not dramatically improve until late 1942. By then of course, only 9th Division was still to return to Australia.

⁹² Long, *To Benghazi*, p. 99.

⁹³ Cam Bennett, *Rough Infantry: Tales of World War II*, Melbourne: Warrnambool Institute Press, 1985, p. 36. (These diversions from the set training syllabus were, of course, not unique to the Australian Army, but as it was starting from such a low base, unlike the regular British Army battalions, it was arguably a greater impediment.)

⁹⁴ See for example, Stan Wick, *Purple over Green: The History of the 2/2 Australian Infantry Battalion 1939-1945*, Sydney, NSW: 2/2 Australian Infantry Battalion Association, 1978, p. 43.

⁹⁵ Mark Johnston, *The Silent 7th: An Illustrated History of the 7th Australian Division 1940-46*, Sydney: Allen & Unwin, 2005, p. 2 & Long, *To Benghazi*, p. 100, on composition of 6th Division.

in Australia, with still others already in Palestine.⁹⁶ Unsurprisingly, this disruption was not conducive to a systematic progression through the training syllabi.

Late in 1940 the 6th was notified that it was to prepare for action and subsequently moved forward to positions near the Libyan port of Bardia. In the weeks prior to the attack, all the battalions gained valuable experience in patrolling. One lesson that would be repeated in the later jungle campaigns was the importance of training in terrain that was the same, or at least very similar, to that over which actual fighting would occur. Fortunately, for the 2/1st Battalion, the Italians were content to stay in their defensive positions and did not punish the unit which quickly realised that the featureless desert was ‘very different from anything we had experienced’ and found themselves having to rapidly improve their navigation skills.⁹⁷ Unlike the 9th Division, who in a few months found themselves besieged in Tobruk, the 6th were able to learn and correct their mistakes before going into action. One of the first lessons that members of all three divisions learnt was that the flat, treeless landscape of North Africa with its minimal shelter from observation made movement during daylight extremely dangerous.

For the rest of the desert campaigns, the comment by McLellan that ‘we became expert nocturnal patrollers and learned to do the most extraordinary things silently, with only a compass and the desert stars’ would have resonated with all who served in the theatre.⁹⁸ Patrols, both reconnaissance and fighting, mine-laying and lifting, re-supply, medical evacuation, ablutions and improvements to defensive positions, all would take place during darkness. To do otherwise, as Johnston has highlighted, was to invite almost instantaneous enemy fire.⁹⁹ In the inky blackness of the triple canopy jungles of the South West Pacific, the AIF would find that movement by night – especially by sizeable forces – was almost impossible. Many units in the Pacific

⁹⁶ For a more detailed explanation of the confusing series of interchanges and postings of battalions and brigades between the four AIF divisions in 1940-41 see, for example Johnston, *The Silent 7th* and the same authors’ *That Magnificent 9th: An Illustrated History of the 9th Australian Division 1940-46*, Sydney: Allen & Unwin, 2002; Long, *To Benghazi*, pp. 82-3 and the various battalion histories.

⁹⁷ Givney, *The First at War*, p. 117.

⁹⁸ Wick, *Purple over Green*, p. 47. Although the majority of the 7th Division fought in the Syrian Campaign and not in North Africa, the largely treeless mountains of Syria and the Lebanon with their limitless artillery observation positions enforced a similar nocturnal lifestyle, except when in direct combat.

⁹⁹ Johnston, *The Silent 7th*, p. 35.

enforced standing orders to shoot anything that moved above the level of a slit trench, even in ones own defensive position. As this thesis will demonstrate, adjustment to this complete reversal in operating procedure between the two theatres would be difficult.¹⁰⁰

Prior to their first battle at Bardia in January 1941, 6th Division identified a problem that would recur until the middle of 1943. Specifically, the numbers of reinforcements arriving at units who were almost completely untrained. Long recounted that ‘a number of reinforcements had not fired a service rifle and a majority had no training whatever on the Bren gun’.¹⁰¹ Units dealt with this problem in two ways. They either distributed the reinforcements across platoons to be trained individually or they created a small training cadre – usually under an officer and a senior NCO – whose responsibility was to bring them up to an acceptable standard before they were allotted to a platoon. This unit level and rather haphazard approach was clearly not adequate and in late 1940 each brigade established ‘a training battalion’.¹⁰²

The AIF Reinforcement Depot established in Palestine, would, when fully staffed and operational, ensure that all the Australian divisions in the Middle East received soldiers as ready for action as training could make them.¹⁰³ Whether this meant that training establishments in Australia were thereby ‘encouraged’ to send out untrained men (as they knew this would be rectified in the Middle East) is open to question.¹⁰⁴ It is incontestable, however, that prior to the first drafts of recruits completing their training at the Reinforcement Depot, soldiers who should not have been allotted to units in late 1940 and early 1941 arrived in sizeable numbers. The results were tragically predictable. Soon after the 6th Divisions’ first battle at Bardia, most of the infantry battalions received replacements for those killed and wounded. Armati would recount bitterly that three weeks later at Tobruk some reinforcements who had arrived that afternoon were killed in action only hours later having ‘not been given time to

¹⁰⁰ This will be dealt with in greater detail in chapter five.

¹⁰¹ Long, *To Benghazi*, p. 123. See also Grey, *A Military History of Australia*, p. 154.

¹⁰² Gordon Dickens, *Never Late: The 2/9th Australian Infantry Battalion 1939-1945*, Loftus, NSW: Australian Military History Publications, 2005, p. 53.

¹⁰³ More detailed information about the AIF Reinforcement Depot ME can be found in AWM54, 937/1/2, p. 6.

¹⁰⁴ Johnston, *At the Front Line*, p. 107.

learn even how to survive'.¹⁰⁵ Similar experiences occurred to 9th Division soldiers defending Tobruk, as late as July 1941.¹⁰⁶ Although the situation in the Middle East would improve over the course of 1941-42, it would recur during the Malayan Campaign, and again in the early stages of the Papuan Campaign.¹⁰⁷ In contrast, the problems experienced by the returning AIF units in their initial jungle campaigns, as Johnston highlights, were:

less a matter of inefficient training than of generally well-trained troops suffering from ignorance of skills and tactics necessary in an environment that was new to them and that was in many respects quite different from Malaya.¹⁰⁸

It would not be until the establishment of the Australian Recruit Training Centre at Cowra, NSW, in November 1943, and more importantly – at least with respect to jungle training – the Australian Training Centre (Jungle Warfare) at Canungra, Queensland, in December 1942, that the problem of inadequately trained reinforcements was overcome.¹⁰⁹

The ongoing issue of shortages of weapons and equipment, identified earlier, continued to be a problem for the Australian Army, arguably until 1943. Many units of the 6th Division had little opportunity to fire their support weapons, with the artillery regiments especially restricted. In December 1940, 2/2nd Fd Regt 'fired its first and only live ammunition practice...during the whole of its stay in the Middle

¹⁰⁵ Margaret Barter, *Far Above Battle: The Experience and Memory of Australian Soldiers in War 1939-1945*, St. Leonards, NSW: Allen & Unwin, 1994, p. 73. Armati was the 2/2nd Battalion Regimental Medical Officer.

¹⁰⁶ Johnston, *At The Front Line*, p. 107. Johnston quotes from a diary extract by Cpl Lovegrove of the 2/43rd Bn who recorded that 'I have four of the newcomers in my Section. All...poorly trained, psychologically not prepared and with limited knowledge of weapons!'

¹⁰⁷ The issue of untrained reinforcements at Singapore will be discussed in the following chapter. Similar issues in the Papuan Campaign will be dealt with in chapter five.

¹⁰⁸ Johnston, *At The Front Line*, p. 108. The gradual development of better jungle warfare doctrine and training, largely based upon experience will, of course, form the basis of this study.

¹⁰⁹ AWM54, 937/1/2, pp. 3-4. Prior to the establishment of the Recruit Training Centre, training proceeded in a decentralised manner, largely occurring on a state by state basis. This meant that great variation in recruits arriving at units occurred, depending on the ability, diligence and available time of the training personnel at each state depot. The fact that reinforcements were allocated to a unit prior to training also caused problems, namely because units rarely suffered casualties at the same rate. A decision was therefore made not to allocate men to a unit until after they had completed their training and it was known which units required priority in reinforcements. This tended to dilute the strong state allegiances of, in particular, the infantry battalions over the course of the war, but all retained links to the state in which the unit was raised.

East before going into action'.¹¹⁰ While two days before the Australian attack on the Italian fortress of Bardia:

Frontline infantrymen were still desperately looking for essentials such as sights and baseplates for their mortars, for wirecutters, and even for white tapes to mark startlines for night attacks.¹¹¹

Brigadier Savage, the 17 Bde commander would later complain of these shortages, but the situation merely highlighted how prescient had been Sturdee's summation of 1933 discussed earlier.¹¹² As Johnston has shown, many units received equipment just before, or in some cases, soon after going into battle. The theatre wide shortages of vehicles, weapons, equipment and ammunition often meant that units had to collect equipment as they went into action and relinquish it to new units as they were replaced.¹¹³ A month after the siege of Tobruk began, for example, the CO of the 2/28th Battalion gathered his men around him and 'threw a couple of grenades over the perimeter wire' to demonstrate what one looked like and the blast radius – none of the unit had seen one in training.¹¹⁴ The ability – in fact, need – to 'learn on the job' and to improvise would become a trait of the Australian Army, never more so than when confronted with the unforeseen challenges of jungle warfare in 1942-43.

Closely aligned to the issues identified above with regard to equipment, weaponry and the training of reinforcements, was the question of doctrine. As discussed earlier, the British manuals, *Field Service Regulations* and *Infantry Training 1937* were seen to provide all the solutions to tactical and doctrinal problems that an officer would confront in battle. The early – and apparently easy – defeats of Italian forces, both by Australian and British formations seemed to support this contention.¹¹⁵ Once, however, the Afrika Corps under Rommel was despatched to stem the advance

¹¹⁰ Cremor, *Action Front*, p. 31.

¹¹¹ David Hay, *Nothing Over Us: The Story of the 2/6th Australian Infantry Battalion*, Canberra: Australian War Memorial, 1984, p. 78. As Hay would recall, at least one mortar crew would have to visually adjust the fire of their mortar, as they did not have a sight.

¹¹² Gavin Keating, *The Right Man for the Right Job: Lieutenant-General Sir Stanley Savage as a Military Commander*, South Melbourne, Vic: Oxford University Press, 2006, p. 40.

¹¹³ Johnston, *At The Front Line*, p. 110.

¹¹⁴ Phillip Masel, *The Second 28th: The Story of a Famous Battalion of the Ninth Australian Division*, Perth: 2/28th Battalion & 24th Anti-Tank Company Association, 1961, p. 24.

¹¹⁵ The photos of long columns of Italian prisoners convinced many that the battles of Bardia and Tobruk were walkovers. The bitter fighting experienced by; for example, the 2/6th Bn at Bardia suggests that this view was not wholly accurate. See Henry (Jo) Gullett, *Not As a Duty Only: An Infantryman's War*, Melbourne: Melbourne University Press, 1984, pp. 18-27.

towards Tripoli in early 1941, the situation changed. Soon, as Coates has argued, it was seen that:

The difference between British and German doctrine for armoured operations was the difference between a surfeit of philosophy but little practical experience on the British side and the actual use of massed armour in combined-arms teams on a large scale by the Germans in Poland and France.¹¹⁶

Recourse to *FSR*, *IT37* and other pre-war training manuals could only provide a modicum of assistance. It was only through the acquisition of combat experience that the best and most appropriate methods were arrived at – a similar scenario to the experience in Papua in 1942-43. Although they provided a basic starting place, the current training manuals and doctrine were not especially useful in preparing the Australians for combat in the desert. This is despite the fact that the training areas in Australia did not differ as markedly from the desert as did the jungles of the South West Pacific. The main problem, as discussed earlier, was that much of *FSR* drew upon the lessons of colonial warfare, and the section on ‘Desert Fighting’ was no exception. It examined the ‘usual tactics of uncivilised warriors’ and the fact that he ‘will often be mounted’.¹¹⁷ Information on the best way to counter the German employment of well co-ordinated armoured vehicles, field artillery, mechanised infantry and tactical air support was non-existent.

The most important deficiencies – for the Australian Army at least – in the extant manuals related more to the infantry, than to the other combat arms.¹¹⁸ The nature of the desert led to the modification of pre-war infantry tactical formations to ones more suitable to the terrain.¹¹⁹ The most obvious of these was that the wide dispersal of any formation during daylight hours was imperative. In the desert, as Curtis would later discuss, to concentrate men in a small area would have been suicidal, as a single shell or burst of machine-gun fire ‘would have got the lot’.¹²⁰ The section, platoon and company formation diagrams in *Field Drills for Rifle Battalions* (1938) described

¹¹⁶ Coates, *Bravery Above Blunder*, p. 33. (Although the doctrine for infantry operations was not as obsolete as that for armoured units, being of pre-1935 vintage, it did not provide much assistance for modern mechanised warfare.)

¹¹⁷ *FSR*, p. 186.

¹¹⁸ The bulk of the Australian forces in the Middle East were the three infantry divisions. Although they included artillery and cavalry regiments on their war establishments, their armoured support came from British Army units such as the Royal Tank Regiment.

¹¹⁹ Sholl, ‘Points Noted and Lessons Learnt’, see especially pp. 42-5.

¹²⁰ Australian War Memorial (AWM), Keith Murdoch Sound Archive (KMSA), Owen Curtis, 2/12th Bn, Archive No. S541, transcript, p. 67.

how best to deploy 'into action from the march' but were not as important to units operating in the desert as the battle drills that would later be adopted in the jungle.¹²¹ Battle or contact drills would become crucial in the jungle, when it was often not known when, or from what direction fire would come. The need for all members of a unit to respond instantly when they came under fire was, of course necessary notwithstanding the terrain, but unexpected contact was clearly more likely in the jungle than in the flat terrain of North Africa where effecting surprise was more difficult.

In the desert, painstaking reconnaissance to determine the nature and depth of the enemy's defences was essential. Approaches and attacks were therefore more deliberate 'set piece' affairs, and 'manoeuvre, as opposed to mobility, was limited...by the good visibility'.¹²² Australian infantry would thus find themselves modifying the formations depicted in *Field Drill for Rifle Battalions*.¹²³ The most notable differences would be the aforementioned wider dispersal and the change to a less cautious 'two up, one back' formation for sections or platoons, which provided more firepower at the head of the formation to compensate for the lack of cover. *Infantry Minor Tactics – Australia 1941* would reflect these lessons; much to the detriment of the units in 1942 who would attempt to apply them to the markedly different terrain of Papua.¹²⁴ Soon after meeting the Japanese in 1942, units would realise that a more cautious 'one up, two back' formation, was best suited to the jungle, where contact often occurred unexpectedly and from the flanks or rear. Although Sholl is arguably correct that there was much continuity between pre-war tactics and those adopted for the jungle campaigns, he fails to take into consideration the effects of the intervening two and half years of service and combat in the Middle East, and that fact that the majority of the AIF did not have the benefit of pre-war

¹²¹ Sholl, 'Points Noted and Lessons Learnt', p. 42. As Sholl rightly identifies, the diagrams 'do not seem intended to be carried out while in contact with the enemy...they have a general rather than a specific orientation and are not framed with reference to an enemy force'.

¹²² Sholl, 'Points Noted and Lessons Learnt', p. 43.

¹²³ *Field Drill for Rifle Battalions (Deployment), Extracts from Military Training Pamphlet No. 1, 1938* (London: HMSO). The manual was reprinted for the Australian Army but no alterations to the original were made.

¹²⁴ *Infantry Minor Tactics – Australian 1941*, Melbourne: HMSO, 1941, pp. 84-5. These changes will be discussed in greater detail in chapter five.

tactical knowledge.¹²⁵ Of equal importance was that over the course of those years in North Africa and the Middle East:

A subtle, but significant change in doctrine had occurred from infantry based tactics to motorised/mechanised infantry tactics [which] were to be entirely inappropriate to the coming battles in New Guinea.¹²⁶

Notwithstanding these doctrinal problems, over the course of 1941 and 1942 – the AIF would build on their Middle East training and early combat experiences and become a well-trained and highly respected force. The experiences of the 7th Division, in particular, during the Syrian Campaign would go some way towards preparing them for the challenges they would face in Papua. The mountainous terrain would make radio and wireless communication difficult and, at times, impossible.¹²⁷ Re-supply by packhorse, malaria precautions and the need to disperse sub-units on individual tasks foreshadowed similar issues in Papua and New Guinea.¹²⁸ Most importantly perhaps, when the men of the 6th, 7th and 9th AIF divisions met the Japanese in battle, it was as combat-hardened soldiers.¹²⁹ As Grey has commented, the ‘first two full years of the war were an important preparation for the great struggle in the Pacific which was to follow’.¹³⁰ Their doctrine and training would prove to be inappropriate to the terrain and the enemy they were to face, but most had been in uniform for over two years. They were battle hardened, extremely fit and determined to halt the Japanese advance. However, the first Australian units to face the Japanese onslaught were not these formations, but the 22nd and 27th Brigades of 8th Division stationed in Malaya. It is therefore to their training and experiences that we now turn.

¹²⁵ Sholl, ‘Points Noted and Lessons Learnt’, pp.45-6. Also, as discussed earlier in this chapter, the level of interwar training was so limited that few officers, let alone NCOs or private soldiers, would have had a deep grasp of the intricacies of formations appropriate for different terrain or situations. This will be dealt with in more detail in chapter five.

¹²⁶ Ibid, p. 34. Although the army quickly realised that issues such as transport would require different solutions in the island campaigns, there was much slower recognition that tactical and doctrinal change was a prerequisite to effective operations in the jungle. The reasons for this, and how those changes gradually occurred is, of course, one of the main themes of this study.

¹²⁷ W. B. Russell, *The Second Fourteenth Battalion: A History of an Australian Infantry Battalion in the Second World War*, Sydney: Angus & Robertson, 1948, p 54 & p. 68.

¹²⁸ John Burns, *The Brown and Blue Diamond at War: The Story of the 2/27th Battalion AIF*, Adelaide: 2/27th Battalion Ex-Servicemen’s Association, 1960, p. 55 and Allan W. Draydon, *Men of Courage: A History of the 2/25 Australian Infantry Battalion 1940-1945*, Chermside Qld: 2/25 Australian Infantry Battalion Association, 2000, p. 92.

¹²⁹ Johnston, *The Silent 7th*, p. 74.

¹³⁰ Grey, *A Military History of Australia*, p. 159.

Chapter 2. ‘Everything was so different’: The 8th Division in Malaya

‘Open Warfare’: Preparations for the Middle East

On 7 December 1940, the 22nd Australian Infantry Brigade was involved in a series of exercises in the rolling open countryside around Bathurst, NSW. According to the unit war diary these were designed to ‘test each Battalion in the following operations of war: a) deployed movement across country; b) locating and pinning a mobile enemy force’.¹ Exactly one year later the same Brigade would be preparing to carry out a very different task, while stationed in Malaya, a location to which, in 1940, none of the unit members would have even contemplated being deployed. The intervening period would see that brigade, and when it arrived in Malaya later in the year, the 27th Brigade, training and experimenting in an attempt to develop solutions to the myriad of problems posed by the new paradigm, ‘jungle warfare’. This chapter will examine that period, and the brief campaign that followed, thereby enabling a greater understanding of how the lessons learnt there link into the broader development of an Australian jungle warfare doctrine. With the fall of Singapore on 15 February 1942, and the capture of virtually the whole of the 8th Australian Infantry Division, much of the accumulated knowledge and combat experience of the first division to see service against the Japanese in a tropical environment, was lost to the Australian Army. Determining how important this was is a further aim of the chapter.

In December 1940, the suggestion that the 8th Division would, within a year, be introduced to battle against the Japanese in Malaya would have been met with derision. As the GOC’s Circular of 16 December 1940 made clear, the division was to prepare itself for the type of conflict that the Empire forces – shortly to include the 6th Australian Division – were involved in against the Italians in North Africa.² To this end, training exercises carried out by the division in the latter half of 1940 closely resembled that of 11 November, which envisaged an attack on the Italian Army near the Libya-Egypt border.³ Further, the author of the 2/18th Australian Infantry

¹ See AWM 52, 8/2/22, 7 December 1940 and ‘Appendix A’ dated 4 December 1940, which discussed the proposed exercise in more detail.

² AWM 52, 1/5/17, 8 Australian Division General Staff Branch, November 1940 – January 1941 ‘GOC’s Circular Letter No. 3’, 16 December 1940.

³ AWM 52, 1/5/17, ‘Copies of Indoor Tactical Exercise – Western Desert’, 11 November 1940. The entry further states that ‘this exercise deals with an imaginary operation by 8 Div based on certain

Battalion history – one of the 22nd Brigade's three battalions – argued that their training was similarly focused upon North African and Middle Eastern conditions. Burfitt stated that:

The camp [in mid-November 1940] was to the north of Bathurst, in open countryside suitable for large scale operations. The training was based around open warfare, obviously relevant to the Middle East where it was initially believed the 8th Division would go, and as a consequence great trench lines were dug.⁴

The relevance and usefulness of training that involved digging large trench systems, even for the type of warfare in which the division was expecting to participate in North Africa or the Middle East, suggests that some of the officers of the division had tactical ideas which had altered little from the 1914-18 war. Henning, who has argued that the officers of the 2/40th Battalion, which was captured on Timor in March 1942, 'were trained in the orthodoxies of World War One tactics' supports this contention and further states that there was a pressing need in 1940-41 for 'in-service training for senior officers'.⁵ As discussed in the previous chapter, the focus, level and appropriateness of Australian Army doctrine and training in the years prior to the outbreak of war, and continuing until at least 1942 left much to be desired. The issue of the standard of training for senior officers at the brigade, division and corps levels in the inter-war period has been addressed elsewhere and is beyond the scope of this work.⁶ Suffice it to say that it can, at best, be described as inadequate.⁷

known dispositions of the Italian forces in that area. 8 Div is to advance against the Italian forces holding the Sidi Barrani area'.

⁴ James Burfitt, *Against All Odds: The History of the 2/18th Battalion AIF*, Frenchs Forest, NSW: 2/18th Battalion Association, 1991, p. 24. See also DVA, AAWFA, Frederick Powers, 2/19th Battalion (hereafter 2/19th Bn), Archive No. 1142, transcript, time 04.07.30.00, 'At Bathurst and again it was open country training and digging trenches and still a lot of them believed that trench systems were very important'.

⁵ Peter Henning, *The Doomed Battalion: The Australian 2/40th Battalion 1940-45 Mateship and Leadership in War and Captivity*, St. Leonards, NSW: Allen & Unwin, 1995, p. 121.

⁶ AWM54, 937/1/2, p.11 'A weakness which became apparent soon after the outbreak of war with JAPAN was the lack of facilities for training officers in the art of command'. (Italics in original) Arguably it was not merely the facilities that were inadequate.

⁷ See, for example, the post-war admission by the Directorate of Military Training that the militia system in the 1920s and 30s was inadequate because under it 'formations and units were too weak to provide useful experience for the leaders and not much more than elementary training for troops', in the *Australian Army Journal*, 'The Basis for Expansion for War' May 1950, p. 7; and the claim in 1926 by Sir Granville Ryrie, commander of the 1st Cavalry Division, that 'another difficulty is that, under existing conditions, we get only a regimental camp, and there is no means of training officers of higher ranks who require training as well as the men. We have no training for brigadiers or divisional commanders', in *Commonwealth Parliamentary Debates*, 10 August 1926, vol 114, p. 5181, cited in A. B. Lodge, *The Fall of General Gordon Bennett*, Sydney: Allen & Unwin, 1986, p. 194.

For the troops of the 22nd Brigade, the first Australian unit to depart for Malaya, training in preparation for service in the Middle East was to be expected.⁸ It was only after their convoy had departed Sydney harbour in early February 1941 that it was realised that their destination was Singapore. Most troops were informed by senior officers of their destination, while others found out by less conventional means. Foremost among these was Wall who stated that:

We thought it [their destination] would be the Middle East...I was on the Queen Mary, up until the time we got to Perth, Fremantle, I thought we were going to the Middle East until some blokes went down below and opened a case and the title was Notes on Malaya.⁹

As Nelson has highlighted, the train that carried members of the 2/19th Battalion from Bathurst to their embarkation point, Sydney ‘was chalked with the slogans: “Berlin or Bust” and “Look out Adolf”’.¹⁰ Training in Australia, at the individual, unit and brigade level was all premised upon the belief that the 8th Division would soon be joining their comrades in the Middle East. The standard and level of training and equipment of the Australian Army, which was discussed in greater detail in chapter one, had not improved since the departure of the 6th Division to the Middle East. This was true for artillery and signals units, as well as for the infantry.¹¹ If every man in a unit possessed a .303 rifle, that unit could consider itself fortunate.¹² The implications of these deficiencies for successful jungle warfare operations will be examined later in this chapter.

The last three months of 1940 saw the Australian government involved in occasionally heated discussions with the British government, and in particular the

⁸ See, for example, the interviews with Bill Harry (2/22nd Bn) and Erwin Heckendorf (2/30th Bn) both of whom were expecting that their units would be sent to the Middle East or North Africa after completing their training. AWM, KMSA, S908, Interview with Bill Harry, 2/22nd Bn, transcript, p. 7; and KMSA, S763, Interview with Erwin Heckendorf, 2/30th Bn, transcript, p. 18.

⁹ DVA, AAWFA, Donald Wall, 2/20th Bn, Archive No. 0429, transcript, time: 3.24.00.19.

¹⁰ Hank Nelson, ‘Travelling in Memories: Australian prisoners of the Japanese, forty years after the fall of Singapore’, *Journal of the Australian War Memorial*, No. 3, Oct 1983, p. 16.

¹¹ DVA, AAWFA, Interview with Colin Finkmeyer, 4th Anti-Tank Regiment, Archive No. 0093, transcript, time 01.21.00.00, ‘We didn’t have any anti-tank guns at that point of time, but we used to train we used to go out to the artillery hill [at Puckapunyal] and we would train there, but instead of a gun we would use a red gum log one way and the other way, so it looked like a bit of a gun and we would do our drills around that and change around on imaginary logs’.

¹² Peter Henning, *Doomed Battalion: The Australian 2/40 Battalion 1940-45 Mateship and Leadership in War & Captivity*, St Leonards, NSW: Allen & Unwin, 1995, p. 17, quotes one of the 2/40th Battalion’s officers, John Strickland, who states that ‘at one stage in Brighton we had twelve rifles in camp, six were used by the guard, and we could have the other six to train half a dozen men at a time’. In a camp in which several hundred men were training, this was clearly inadequate.

Prime Minister, Winston Churchill, over the defence of Singapore and the broader region to Australia's north.¹³ At the Singapore Conference in late October 1940 it was determined that 'it should be possible' for Australia to provide a 'brigade group' by the end of December 1940.¹⁴ As Horner demonstrates, one outcome of these discussions was the despatch of the 22nd Brigade to Singapore.¹⁵ That the Australian forces would be unfamiliar with and untrained in operating in a tropical environment was not discussed.¹⁶ At this stage, it was generally believed that Malaya was not under threat of attack. The first mention of the forthcoming deployment appeared in the 8th Division General Staff Branch War Diary on 31 January 1941 when Major Kappe, 8th Division's GSO2 left for 'destination of "Elbow Force"'.¹⁷ He was followed during the first week of February by the divisional commander, Major-General Bennett; the 22nd Brigade's Commanding Officer, Brigadier H. B. Taylor, and his Brigade Major, Major C. B. Dawkins. The first deployment of Australian forces to a tropical environment since the First World War had begun.

Upon their arrival in Malaya, Taylor and Dawkins spent approximately ten days visiting various British and Indian Army units trying to ascertain the types and level of jungle warfare training they were engaged in. Taylor's diary recorded that he 'saw a company of [2/1] Dogras training in jungle warfare. [They] do it according to green book tactical notes on Malay'.¹⁸ The assertion by Taylor that the majority of British units had not developed detailed training methods or a syllabi is supported in subsequent accounts by Lieutenant-Colonel Stewart, second-in-command of the 2nd Argyll and Sutherland Highlanders, and Major Angus Rose, another officer of that unit. Stewart argued that:

The accepted British teaching at that time [August 1939, when his unit arrived in Malaya from India] was that the jungle was impassable for large

¹³ See, for example, David Day, *Menzies and Churchill at War*, Melbourne: Oxford University Press, 1993.

¹⁴ Wigmore, *The Japanese Thrust*, p. 44.

¹⁵ David Horner, *High Command*, p. 53. Footnote 10 on this page provides archival evidence that both the Minister for the Army, Percy Spender, and the Chief of the General Staff, Lieutenant-General Vernon Sturdee, recommended in December 1940 that the 22nd Bde should be sent immediately.

¹⁶ The 22nd Brigade was recruited from NSW, as were all its battalions. They had not conducted any training or exercises outside of NSW. Thus, none of the units had any relevant jungle warfare experience or training to call upon once deployed to Malaya.

¹⁷ AWM52, 1/5/17, 31 January 1941. 'Elbow Force' was the codename for the 8th Division's deployment to Malaya.

¹⁸ AWM 3DRL/1892. Diary of Brigadier H. B. Taylor, 11 February 1941. (This manual will be discussed in greater detail shortly.)

bodies of troops, and that circumstances were therefore overwhelmingly in favour of defence. It was on this assumption that Singapore fortress had been built'.¹⁹

Rose went further and stated that when the unit proposed to embark on jungle warfare training 'we received very little encouragement from Malaya Command and they assured us that if we were not drowned in the seasonal rains we would be decimated by malaria'.²⁰ This lack of interest in jungle fighting by Malaya Command is presumably the primary reason that no jungle warfare school existed in Malaya. Brigadier W. St. J. Carpendale of the 28th Indian Brigade expressed surprise upon his arrival in Malaya in August 1941 to discover that there was 'no jungle-training school for officers'.²¹ Notwithstanding the negativity of Malaya Command to the Highlanders' proposed jungle warfare training ideas, by the time the 22nd Brigade arrived in late February 1941, the unit had conducted regular exercises in jungle and rubber plantations, and had laid the groundwork for a jungle training syllabus.

It is difficult at this distance to determine exactly how much information Taylor and Dawkins' took from their meeting with Stewart, and their observations of various units' training, but Taylor would later record that Stewart had more to offer than any other British officers.²² However Stewart himself would admit that:

The Argylls gradually evolved their own tactics on the conception of jungle war...[and that] in spite of what has been said, the Bn was not entirely the perfect jungle fighting instrument it might have been. Its tactics and tng [training] had only gradually developed with experience and finally crystallised some few months before the war.²³

As Moremon has argued, when the Australians arrived in Malaya, eight months before the outbreak of the Pacific War, Stewart 'therefore, could still have only been developing his own jungle warfare doctrine'.²⁴ From these inauspicious beginnings

¹⁹ Brigadier I. MacA. Stewart, *History of the Argyll and Sutherland Highlanders 2nd Battalion (The Thin Red Line) Malayan Campaign 1941-42*, London: Thomas Nelson & Sons, 1947, p. 1.

²⁰ Angus Rose, *Who Dies Fighting*, London: Jonathon Cape, 1944, p. 9.

²¹ Peter Elphick, *The Pregnable Fortress: A Study in Deception, Discord and Desertion*, London: Hodder & Stoughton, 1996, p. 189.

²² Gavin Long interview with Brigadier Taylor, 10 Feb 1947, in AWM67 Gavin Long papers 2/109. Taylor said that while no British officers were really useful, 'perhaps Stewart...knew most'.

²³ Stewart, *History of the Argyll and Sutherland Highlanders*, pp. 3-5.

²⁴ Moremon, 'Most Deadly Jungle Fighters?', p. 12.

the officers of the 22nd Brigade therefore had to create their own training programmes once their units disembarked at Singapore Harbour on 18 February 1941.²⁵

Whether there was a pressing need for the creation of new training programmes and tactical methods of operation to meet and overcome the difficulties inherent in a tropical jungle environment, or whether tried and tested methods needed only to be slightly altered to meet the new environmental challenges, continues to be debated.²⁶ Later chapters of this study will examine the arguments of officers such as Generals Vasey and Boase, two of those who clearly believed that over reaction occurred, most notably in late 1942 and early 1943. What was clear is that Malaya, and to a greater extent New Guinea, Bougainville and the other islands of the South-West Pacific, posed a series of formidable problems for any army. Many of these, such as logistics, air support and map-making are beyond the remit of this work and have been examined in greater detail elsewhere.²⁷

What would have been readily discernable to Taylor and Dawkins as experienced soldiers is that engagements in jungle or rubber would take place at much closer range than on 'traditional' European or North African battlefields. Fields of fire were reduced to yards, or at times feet, from one's position, thus increasing the speed at which events unfolded. Ambush, by either side, would be an ever-present danger. 'Tactical features [such as hills] lost their significance, roads and tracks were vital; static defence spelt defeat, and all round protection would be essential'.²⁸ Observation and fire support, by the unit's own weapons, such as mortars or medium machine guns, and by field artillery or aircraft was made considerably more difficult. Communications and control by higher authority was correspondingly harder in the jungle, when a general or brigadier could often not see any of the forces under his command and therefore had to rely upon unit and sub-unit commanders to carry out

²⁵ AWM52, 8/3/20, 18 February 1941.

²⁶ See, for example John Moremon, 'No "Black Magic": Doctrine and Training for Jungle Warfare' in Peter Dennis & Jeffrey Grey (eds), *The Foundations of Victory: The Pacific War 1943-44*, The Chief of Army's Military History Conference 2003, Canberra, ACT: Army History Unit, 2004, pp. 76-85. In this chapter Moremon argues that there was a great over reaction to the defeats of December 1941-August 1942, and that current training and doctrine were sufficient to meet, and eventually defeat, the Japanese threat. For a contrasting view see the chapter by Palazzo in the same work: Albert Palazzo, 'Organizing for Jungle Warfare', pp. 86-101 and especially p. 89.

²⁷ As discussed in the literature review, the last ten years has seen a number of academic works examine these areas, all of which were crucial to the success of the Allied forces in the South-West Pacific area.

²⁸ Wigmore, *The Japanese Thrust*, p. 68.

his orders and make their own judgements and decisions.²⁹ According to Wigmore, 'as Taylor saw it, the section and platoon commanders would become all-important. If they lost, you had lost'.³⁰ Although Malaya generally had a good road network, once off the main highways transport would rapidly become bogged, meaning resupply would rely on manpower. These and other problems would confront the units in Malaya, and exercise the minds of the unit commanders in attempting to develop solutions.

It is clear from several documents that notwithstanding the rushed nature of the departure to an unfamiliar country, planning to overcome the problems associated with a tropical environment had begun to take place. In particular, the dangers of disease, especially malaria, were recognised, and lectures and handouts on the subject were prominent on the voyage to Singapore.³¹ Training onboard ship was, of course, restricted, but this does not mean that none was taking place. As the 2/20th Battalion war diary indicated:

Particularly extensive and instructive lectures are being given daily to all officers. These lectures are proving most valuable, and cover a tremendous amount of general and specialised knowledge. The information learned in these lectures is in the main then promulgated to all ranks.³²

Although the discussions on what the units would face upon arrival in Malaya were not as detailed as those the 16th and 17th Brigades undertook during their voyage to Ceylon approximately a year later, preparations to ready the troops for their new

²⁹ Stewart, *The Argyll and Sutherland Highlanders*, p.2. The problems of communication and control will be discussed in greater detail later in this chapter.

³⁰ Wigmore, *The Japanese Thrust*, p. 68. See also, AWM67, 3/9, Part 1 'Personal Records of Lt-Col CGW Anderson, VC, MC', letter 16 November 1948, p. 3. Anderson elaborated on this point concerning the importance of junior leaders in a letter to the Official Historian Gavin Long. He argued that 'in jungle fighting, owing to the closeness of the country, the tempo of the fighting is much faster than in ordinary warfare, and errors of tactics and judgement, and indecision on the part of junior commanders, have a far greater influence on the general scheme of operations than is generally realised'. (This point, an extremely important one with regard to jungle warfare, will be dealt with throughout the current study.)

³¹ See, for example, NAA, MP729/7, 33/421/96, 'Prevention of Disease Among Troops in Tropics', 29 January 1941, a three-page document 'prepared by ADMS [Assistant Director Medical Service] on instruction of GOC 8 Aust Div', immediately prior to departure for Malaya. The 2/20th Bn war diary also contains two references to the subject of health, a single-page document entitled 'Health in the Tropics' and 'Instructions For The Prevention of Disease In Malaya'. AWM52, 8/3/20, 19-24 February 1941. This file appears to be a re-writing of the abovementioned document from the ADMS.

³² AWM52, 8/3/20, 13 February 1941.

locale were undertaken.³³ Lectures given to 22nd Brigade officers on the voyage also included topics such as ‘care and responsibility of arms and equipment with particular reference to climatic conditions’.³⁴ A lecture on ‘outline of experiences in jungle warfare’ was delivered by Major Anderson, second-in-command of the 2/19th Battalion, who had served in the British East African jungle campaigns during World War One.³⁵ His knowledge was to prove of value to his unit, although it is difficult to determine how much of his information was applied to the development of jungle warfare training for the whole brigade.³⁶

The single most valuable source of information, at least from the number of references to it in battalion and brigade war diaries, was the booklet mentioned earlier by Taylor and Wall, which had been discovered by troops in the hold of the *Queen Mary* during the voyage to Singapore.³⁷ *Tactical Notes For Malaya 1940* was a 29-page British Army booklet, copies of which had been supplied to Australian Army Headquarters in 1940 and reprinted in bulk to be distributed to 22nd Brigade.³⁸ As Moreman has written, the booklet described ‘local conditions in Malaya, the characteristics of the Japanese army and minor tactics in densely forested terrain’.³⁹ The detailed booklet, which included maps and illustrations, provided the first substantial source of training programme information for many of the Australians. Closer examination of *Tactical Notes For Malaya* does, however, reveal that much of the information therein had appeared previously, including in the documents discussed in footnote forty below. A deeper and broader reading of the available

³³ Chapter three will address the extended deployment of two of the 6th Division’s infantry brigades to Ceylon. Those units had the additional benefit of a small number of reports and booklets written after the fall of Malaya, the Netherlands East Indies and the Philippines to aid in their discussions.

³⁴ AWM52, 8/2/22, 22 Bde GP, ‘Tng of Officers’ (Further Syllabus of lectures), 12-14 February 1941.

³⁵ Ibid.

³⁶ Newton, the editor of the 2/19th Battalion’s history, claims that Anderson’s ideas were discussed at battalion and brigade conferences and then incorporated into training programmes. As with much of the information in this period it appears impossible to confirm or deny this belief. The relevant Brigade and Battalion war diaries do not discuss the subject matter of the conferences. R. Newton (ed), *The Grim Glory of the 2/19 Battalion AIF*, Sydney, NSW: 2/19 Battalion Association, 1975, p. 69.

³⁷ It is unclear why the booklet was not utilised on the voyage, as it was obviously available. Presumably the series of lectures, physical training, and rifle drill given to the troops was deemed sufficient until the brigade arrived in Singapore.

³⁸ As it has proven impossible to obtain an original copy of the British 1940 (Calcutta) print, the reprint produced by the Australian General Staff in late 1940 (a copy of which is held by the Australian War Memorial) will be discussed in this study.

³⁹ Tim Moreman, ‘Jungle, Japanese and the Australian Army: learning the lessons of New Guinea’, paper presented to the *Remembering the War in New Guinea* symposium, Australian National University, 19-21 October 2000, on the Australia-Japan Research Project/Australian War Memorial Website.

intelligence by British and Australian commanders would have allowed them to form a more complete and nuanced picture of their enemy and of the likely nature of combat in the jungle terrain of Malaya. *Tactical Notes* was presumably seen as very useful to the newly arrived units, as it synthesised and packaged in an easily transferable form information from many sources. The argument that *Tactical Notes* was the only source of information on the Japanese, or tactics to employ in the jungle, is therefore erroneous.

Wigmore highlights the fact that the booklet gave a much more realistic view of the capabilities of the Japanese military than 'some of the ideas prevailing there [in Malaya] at the time'.⁴⁰ It accurately discussed the terrain of Malaya, how one should fight in that terrain, the strengths and weaknesses of the Japanese and how to defeat them. Adequate preparations based upon the information contained in *Tactical Notes* would have gone a long way towards preventing the forthcoming disaster. Why the Japanese Army was still so underrated, given works such as *Tactical Notes*, as well as the numerous reports, articles and intelligence summaries available to the Allies, can only be attributed to overconfidence or belief in racial superiority.⁴¹

A second training manual was also available to the newly arrived Australians, but the extent of its use is more difficult to determine than *Tactical Notes for Malaya*.⁴² This second pamphlet, *Military Training Pamphlet No. 9 (India) Extensive warfare: Notes on Forest Warfare* was, according to Moreman, 'produced by the Indian military authorities...[and contained] guidance about forest fighting for its units being sent to Malaya'.⁴³ Like *Tactical Notes* it was also reprinted at the behest of AHQ Melbourne,

⁴⁰ Wigmore, *The Japanese Thrust*, p. 67.

⁴¹ As discussed in chapter one, for at least a decade the Allied forces had known about the ability of the Japanese military. There was no excuse for underrating them. The 23rd Brigade war diary contains numerous very detailed files and reports on equipment and weapons of the Japanese Army, and its operations in China. See, for example AWM52, 8/2/23, Appendices to November 1941 'Japanese Army Landing and Other Operations' dated 24th April 1941, and an undated 18-page file 'Japanese Army Equipment', the introduction to which discusses previous files containing information on the Japanese Army, printed in 1940. The majority of these reports do not appear in the 22nd Brigade War Diary, therefore it is impossible to state categorically that the first Australian units to deploy to Malaya had access to this information. Later units certainly did.

⁴² Moreman, 'Most Deadly Jungle Fighters?', p. 13: 'unfortunately, it is not certain that this second handbook was made available to British and AIF units in Malaya'. See also Moreman, 'Jungle, Japanese and the Australian Army', p.3: 'it is difficult to find out how widely this source of information was used'.

⁴³ Moreman, 'Jungle, Japanese and the Australian Army', p.3.

and distributed, at least down to divisional level. A secret training circular despatched by HQ 8th Division to all units under command still in Australia stated that:

Attention is drawn to “Notes on Forest Warfare” and “Tactical Notes on Malaya”. Copies of the latter are being forwarded by AHQ direct to HQs 23 and 27 Inf Brigades.⁴⁴

This passage is inherently contradictory, but the second sentence does suggest that Lieutenant-General Bennett, or one of his senior staff officers had decided that *Notes on Forest Warfare* was not as valuable as *Tactical Notes*, and as such it was not sent to the brigades, battalions or regiments of 8th Division.⁴⁵ This decision, while not critical, appears unfortunate, as *Notes on Forest Warfare* does include valuable information that could have been used as an adjunct to *Tactical Notes*.⁴⁶ Notwithstanding the uncertainty over the availability of the second pamphlet to the AIF in Malaya, it is clear that *Tactical Notes* was widely distributed. As Moremon posits, this demonstrates that the 22nd Brigade had in its possession, upon arrival, information ‘containing the basic fundamentals of jungle warfare’.⁴⁷ The units were therefore able to expand upon existing knowledge, including Lieutenant-Colonel Stewart’s advice and suggestions by Major Anderson of the 2/19th Battalion, and develop training ideas.

‘Jungle Training is intense’: 22nd Brigade in Malaya

The centrality of *Tactical Notes for Malaya* to the creation of training programmes is evidenced by its inclusion as the set text in the first training instruction issued by 22nd Brigade, and days later by 8th Division’s first training instruction. Training Instruction No. 1, dated 20 February 1941, two days after the arrival of 22nd Brigade at Singapore, states that:

This instruction relates to tng for battle against a specific enemy in the projected theatre of operations. The characteristics of the likely enemy are set out in “Tactical notes for Malaya” and should be kept before all ranks at times during their tng.⁴⁸

⁴⁴ AWM52, 1/5/17, ‘Training’ Circular G13, 27 March 1941, p. 1.

⁴⁵ Examination of all the relevant brigade, battalion and regimental war diaries failed to find any reference to *Notes on Forest Warfare*. This strongly suggests that the pamphlet was not utilised by 8th Division to help create training programmes in Malaya. It was, however, used by the 6th Division during its training period on Ceylon in early to mid-1942.

⁴⁶ A third source of information on jungle warfare in Malaya does appear to have been available if the Australian government or Army had desired to acquire it. The foreword to *Notes on Forest Warfare* states that “The special object of warfare in Malayan jungles is dealt with in War Information Circular No. 6”. Presumably the information in *Tactical Notes For Malaya* was believed to be sufficient, as no references have been found to this document.

⁴⁷ Moremon, ‘Most Deadly Jungle Fighters?’, p. 13.

⁴⁸ AWM52, 8/2/22, ‘Tng Instruction No. 1’ HQ 22 Inf Bde, 20 February 41.

The next sentence stated that, ‘the problem is to apply the tng already undertaken by the Inf Brigade to the type of country’ and that the ‘three types of country are...extensive rice fields, rubber plantations, jungle’.⁴⁹ These two sentences are in tension with each other in that the first suggests that no great tactical changes would be necessary, while the second lists three different types of terrain and foliage in which the Australians would have to operate, none of which had been experienced previously. The challenge of preparing the units for jungle warfare would therefore prove to be a more varied and complex undertaking than any of the Australians had foreseen.

Within days the brigade had begun to implement the suggestions in *Tactical Notes*. During the first few days after their arrival, however, the units restricted themselves to acclimatising to the heat and humidity before beginning actual training. Lectures continued, units settled into their new quarters, and mosquito nets were issued, along with the unanimously disliked ‘Bombay Bloomers’, an awkward cross between shorts and slacks.⁵⁰ Less than a week after their arrival the Australians were ready to take their first steps into the jungle. Shortly, the challenges posed by the new terrain and climate would cause a re-evaluation of how much adjustment, mentally and tactically, would be required to enable the Australian Army to operate effectively in the jungle.

Only days after the 22nd Brigade had begun initial section and platoon marches to accustom their troops to the new environment, both officers and men had noted the extent of the difference to that which they had become accustomed in Australia. Although many of the opinions expressed in Bennett’s self-serving and oft-maligned book on his division’s time in Malaya should not be accepted uncritically, his views on the changes he believed would be necessary are worth citing. He stated that:

A few minutes in the jungle was sufficient to convince me that we had to start afresh on our training. Our textbooks, our tactical methods, our equipment, our clothing, had been designed for a European War. Recent desert fighting had modified methods to suit the desert. Jungle conditions were such that, while textbook principles were sound, the methods had to be varied fundamentally.⁵¹

⁴⁹ Ibid.

⁵⁰ Newton (ed), *The Grim Glory of the 2/19*, p. 74.

⁵¹ Bennett, *Why Singapore Fell*, p. 12.

Another who had noted the problems inherent in the new terrain, and believed that they would require tactical modification from the Australians to enable them to operate effectively, was the Brigade Major of 22nd Brigade, C. B. Dawkins. After observing both section and platoon level movement exercises in rubber plantations and through jungle he stated that:

It is apparent that a great deal of this training is desirable to accustom troops to working in the closer country found in Malaya, as previously Brigade training was carried out in open Australian country which would have been invaluable for desert fighting.⁵²

The troops themselves confirmed that adjusting to the new training environment was a challenge. A member of the 2/18th Battalion remarked:

Jungle training is intense...It would take us half a day to cut a hundred yards with parangs. It is more dense than you could possibly believe. You couldn't credit that you could hide yourself two yards from somebody and they wouldn't be in the race to see you.⁵³

An especially vivid account of the challenges posed by operating in jungle terrain appeared in the second edition of the 2/19th Battalion's unit magazine, printed in April 1941:

At first we were raw recruits again. We had to learn elementary lessons in a strange terrain and a strange climate. We had to adapt our tng to new conditions. The Malayan jungle was a different proposition to the bleak, bare hills of Ingleburn and Bathurst. A 'nose for direction' was likely to get out of joint in the forests and their jigsaw puzzle of narrow tracks. It was a hard school we learned in. We sweated and toiled and swore in the jungle and the hilly rubber country. Bivouacs meant sleeping under mosquito nets and wondering whether one would roll over into a King Cobra during the night. We dragged through steamy, stinky swamps and cursed as we got entangled in labyrinthine vines and creepers on rubber estates. Leeches, scorpions, snakes, mosquitoes – we suffered them all.⁵⁴

These, and many similar accounts, demonstrate that the first Australian Army units in the Second World War faced with tropical conditions found them confronting and not a little unsettling, and that to many of the men simply 'apply [ing] the tng already undertaken...to the [new] type of country', was not going to be as easy in reality as it was in a written training instruction.⁵⁵

⁵² AWM52, 8/2/22, 24/29 February 1941.

⁵³ Frank Colenso, quoted in Burfitt, *Against All Odds*, p.26.

⁵⁴ "Jacky Roo" quoted in Newton (ed), *The Grim Glory of the 2/19*, p. 85/6.

⁵⁵ AWM52, 8/2/22, 'Tng Instruction No. 1' HQ 22nd Inf Bde, 20 February 1941.

To overcome the unease and, in some cases, actual fear that the troops had of the new environment, Bennett's initial training instruction stated that 'the first essential is to train the troops to become jungle-minded'.⁵⁶ This training instruction, issued to all units only days after the 22nd Brigade had issued their own, very similar training instruction, listed three essentials for jungle warfare.⁵⁷ These were: 'offensive action wherever possible, the highest standard of section etc, training [and] maintenance of direction'.⁵⁸ The second and third of these points became the early priority, and throughout the rest of the 8th Division's time in Malaya, at some stage during every week, units from section to battalion level practised keeping direction and manoeuvring in jungle and rubber. The use of prismatic compasses took on central importance as navigation and reconnaissance in jungle or rubber proved far more complicated than in the open countryside the units had trained in previously.

Marching between distant but visible landmarks, which had been standard practice in Australia, was virtually impossible in the thick jungle and tall rubber of Malaya, as was navigating by orienting a map to the ground over which the troops moved. Inaccurate and sometimes nonexistent maps added to these problems.⁵⁹ For the Australian artillery units, in particular, a considerable amount of time was spent in survey work and the creation of gridded maps, so that when called upon they could fire accurate barrages and defensive fire tasks in support of the infantry battalions to which they were attached.⁶⁰ In a country where lack of observation of fall of shot was the norm rather than the exception, accurate maps became even more crucial. Often these were not available, and units would then have to make their own. A shortage of prismatic compasses and qualified survey teams further added to the problem. The techniques of sound ranging – usually involving the use of three separate observers to

⁵⁶ AWM52, 8/3/18, 'Training Instruction No. 1' HQ AIF Malaya, 28 February 1941.

⁵⁷ Debate continues over who exactly in 8th Division was most important in the creation of Australian jungle warfare tactics and training. As Moremon highlights, in the post-war period Bennett, Taylor and others 'strongly disputed' who was responsible. Moremon, 'Most Deadly Jungle Fighters?', p. 14. This issue will be discussed in greater detail below.

⁵⁸ AWM52, 8/3/18, 'Training Instruction No. 1' HQ AIF Malaya, 28 February 1941. Interestingly, the attached 'Malaya Command Training Instruction No. 1 of 1941' makes no specific mention of jungle warfare training, supporting the earlier cited views of Stewart and Rose, with regard to the lack of attention paid to this aspect of the defence of Malaya.

⁵⁹ Ron Magarry, *The Battalion Story: 2/26th Infantry Battalion, 8th Division AIF*, Jindalee, Qld: Ron Magarry, 1995, p. 43. On this page Magarry recounts an incident in which a mountain range on one of their issue maps was found to be 3,000 yards to the west of its correct position.

⁶⁰ See, for example, Bob Goodwin, *Mates and Memories: Recollections of the 2/10th Field Regiment* RAA, Rochedale Qld, Boolarong Press, 1995, p. 19.

judge where shells had landed by triangulation – did not become a standard procedure until later in the war.⁶¹ Upon examining the gun positions chosen for his unit, Colonel Wright, commanding officer of the 2/15th Field Artillery Regiment noted in his diary that:

I visited the positions but was not enamoured of them, still, they were the best offering. This was certainly NOT artillery country. It was almost impossible to get observation posts.⁶²

Eventually, of course, field artillery would be used to great effect by the Australian Army in New Guinea and the islands, but at this embryonic stage, most units were struggling to come to terms with the challenges posed by conditions in Malaya.⁶³ Air co-operation to direct and adjust fall of artillery fire was also in its infancy in this theatre, further adding to the difficulties faced by all units.

The infantry units immediately set about tackling the new challenges, with the 2/20th Battalion issuing its first training syllabus only days after arrival in Malaya. This syllabus closely followed the 22nd Brigade training instruction issued two days earlier, to the point of repeating some of the same sentences. It stated that the object of the training was to ‘train Secs [Sections] and Pls [Platoons] to move through semi close and close country...[further that] lectures will be given regarding types of country...[and] a high standard of snap shooting at short range is necessary [both] kneeling and standing’.⁶⁴ *Tactical Notes* would be the prescribed text and ‘should be kept before all ranks during training’.⁶⁵ The 2/18th Battalion syllabus for early March saw the unit moving beyond section and platoon exercises to ‘coy [company] attack [and] defence in rubber’.⁶⁶ At the same time the 2/19th Battalion stated that ‘all

⁶¹ Ron Jackson, *The Broken Eighth: A History of the 2/14th Australian Field Regiment*, Melbourne: Clipper Press, 1997, p. 162.

⁶² Cliff Whitelocke, *Gunners in the Jungle: A story of the 2/15 Field Regiment Royal Australian Artillery, 8 Division, Australian Imperial Force*, Eastwood, NSW: 2/15 Field Regiment Association, 1983, p. 63.

⁶³ The larger question of why British artillery units, which had been stationed in Malaya for many years, could not help the 2/10th or 2/15th Field Regiments with the problems they were now facing is beyond the purview of this study. At the very least it calls into question the training those British units had been doing in the years prior to 7 December 1941. One possible answer is provided by Rose [and others], who argued that the defence plan for Malaya and Singapore was premised around fixed defensive positions. See Rose, *Who Dies Fighting*, p. 10. One can extrapolate that artillery units, whether field artillery or not, were also trained upon this basis.

⁶⁴ AWM52, 8/3/20, ‘Syllabus of Training: Week Ending 1 Mar ‘41’, Attached to War Diary, 19-24 February 1941.

⁶⁵ Ibid.

⁶⁶ AWM52, 8/3/18, ‘Syllabus’ 28 February 1941.

officers to meet 2000hrs each day for discussion on training problems', demonstrating that, while the units had a basic set of ideas to utilise, incorporating their own experiences of operating in the new terrain would also be valuable.⁶⁷ The fact that the battalions' training syllabi were based upon the 22nd Brigade training instruction, promulgated by Brigadier Taylor and his brigade major, Major Dawkins, supports the contention that, at least initially, it was they and not Bennett who had greater input into the creation of an Australian jungle warfare doctrine.⁶⁸ It is also clear from his diary that Taylor spent much time visiting his battalions and overseeing their training in jungle conditions.⁶⁹

Within a few weeks of beginning training in the jungle and rubber plantations, the Australians began to grow more accustomed to the very different environment. Some soldiers appear to have enjoyed the experience of 'being thrown straight into the jungle with water up to your knees, and not being able to see more than ten yards clearly, [it] was quite exciting actually. Everyone got stuck into it, we were doing things the British troops hadn't been doing'.⁷⁰ For most, however, it was hard and unpleasant work. Great emphasis was placed upon increasing familiarity with jungle conditions, for all soldiers, not just the infantry.⁷¹ Colin Finkmeyer, a member of the 4th Anti-Tank Regiment commented that 'we did a lot of jungle training...we did manoeuvres right through the jungle. We did a heck of a lot of marching through the jungle'.⁷² As well as familiarising the 22nd Brigade with their new surroundings, this training highlighted some areas that would continue to cause problems for all Australian units operating in jungle environments, not only the 8th Division.

Communications were a particular problem, with the climate and terrain creating difficulties that would bedevil all units in the South-West Pacific until the war

⁶⁷ AWM52, 8/3/19, 'Syllabus as from 25 Feb, 41', 25 February 1941.

⁶⁸ This accords with Moremon, 'Most Deadly Jungle Fighters?', p. 15.

⁶⁹ AWM 3DRL/1892. See entries for 20, 24 and 28 February 1941 for example.

⁷⁰ Alan Loxton quoted in Burfitt, *Against All Odds*, p. 26.

⁷¹ See, for example, the comments by Frederick Power who highlighted both Lieutenant-Colonel Anderson's advice 'don't be frightened of the jungle' and James Howard's assertion that 'if you were familiar with it [the jungle] you had the edge on the other fellow'. Both DVA, AAWA. Power, 2/19th Bn, Archive No. 1142, transcript, time 05.19.30.00, and Howard, 2/19th Bn, Archive No. 0947, transcript, time 03.09.00.00.

⁷² DVA, AAWA, Colin Finkmeyer, 4th Anti-Tank Regiment, Archive No. 0093, transcript, time 01.31.30.00.

ended.⁷³ Closely aligned to the problems affecting communications – at all levels – was, of course, the impact this had on command and control. As Stewart has convincingly argued:

In [a] complex modern army control is decisive, and control depends on comms. Break control [through loss of communications] and an army will disintegrate. The jungle enormously increases the difficulties of control at all levels, for it prevents even visual means beyond the section.⁷⁴

No units were able to avoid the communication system difficulties imposed by the tropical climate of Malaya, but prior to the outbreak of war, they were generally able to work around them. Motorcycle despatch riders and even, on occasion, the local telephone system became widely used.

The artillery units were the worst affected by these communication problems, finding that ‘the heavily timbered, undulating country rendered the standard wireless telegraphy sets almost useless’.⁷⁵ As Keith Pope stated ‘you’re [sic] wireless was absolutely useless inside a rubber plantation...[and that] the sets we had would not operate in a rubber plantation’.⁷⁶ This meant that ‘poor comms kept the guns out of touch with each other and with those directing them. It was a problem we never solved’.⁷⁷ The thick jungle vegetation or rubber plantation timber also rendered several of the fallback solutions – semaphore, Lucas lamps and heliographs – useless, as they all required line of sight to operate properly. As in all other theatres that the Australians served in, the ‘most dependable method was by field telephone and Sig cable’.⁷⁸ The burden upon the various signals units was therefore greatly increased due to the extra miles of cable they had to lay in an attempt to connect units.⁷⁹ Allied

⁷³ One response to the problems caused by the jungle and a tropical climate, which will be discussed in chapter five, was the publication of *The Signal Officer-in-Chiefs Memorandum*, printed by LHQ in Melbourne. These small booklets, which from 1942 onwards increasingly discussed problems specific to the SWPA, listed solutions and ideas for signallers, wireless/telegraphy operators, despatch riders etc. NAA, MP729/6, 50/401/348, *Signal Officer-in-Chief's Training Memorandum No. 12 Training of Signal Personnel for Jungle Warfare*, 17 December 1942.

⁷⁴ Stewart, *The Argyll and Sutherland Highlanders*, p. 2.

⁷⁵ Whitelocke, *Gunners in the Jungle*, p. 83.

⁷⁶ DVA, AAWA, Keith Pope, 8th Division Signals, 6th Line Section, Archive No 0701, Transcript, time 04.09.00.00.

⁷⁷ Ibid. This was also a problem for infantry units, see, Burfitt, *Against All Odds*, p. 61, ‘wireless sets were unreliable because of the thick vegetation, so signallers had to make repeated dashes under fire to reconnect the wires between the companies and Battalion HQ’.

⁷⁸ Whitelocke, *Gunners in the Jungle*, p. 108.

⁷⁹ Ibid. The problem of laying extraordinary lengths of signal cable was, of course, not unique to the SWPA. The distances of advances in the Western Desert were measured in hundreds of kilometres. In Syria, artillery units had struggled up and down precipitous mountain ranges carrying heavy reels of

to this problem was a shortage of signal cable, which forced some units to employ unorthodox tactics, further lending credence to the notion that Australian soldiers are frequent 'scroungers'.⁸⁰ Once battle was joined even more desperate measures in retrieving already laid cable occurred on numerous occasions.⁸¹

The jungle also caused problems for communications by signal cable, some of which were expected, others less so.⁸² As McNevin, a member of the 2/10th Field Artillery Regiment has discussed:

We had a hell of a job with maintenance on that line. That section of the jungle was inhabited by baboons. The baboons would regularly see this wire, the wire was held up in the trees, well this is a good place to swing and they'd break the line all the time...so you were always out there repairing the line from the baboon.⁸³

Understandably, advice on dealing with baboons had not previously been an issue for Australian units. The move to jungle theatres of operation created many unforeseen problems, some of which, such as coping with baboons, were never adequately solved, no matter how many times they occurred. For other units poor communications meant a return to the oldest method of passing messages, runners, or if they were lucky enough to have the services of one, a despatch rider.⁸⁴ Both these forms of communications were, especially in the close confines of jungle warfare,

signal wire when their wireless sets had proven inadequate in the steep terrain. See, R. L. Henry, *The Story of the 2/4th Field Regiment: A History of a Royal Australian Artillery Regiment during the Second World War*, Melbourne: The Merrion Press, 1950, p. 142.

⁸⁰ Newton (ed), *The Grim Glory of the 2/19*, p. 72, 'Requests for additional signalling equipment and cable was refused by Division HQ and it was not until September 1941, when an unofficial scrounging exercise was conducted by the Signal Platoon to the British Army Stores at Nee Soon, Singapore, and the Post and Telegraphic Stores at Mersing, that this position was relieved and we were able to satisfy the Battalion requirements'. The larger issue of Australian soldiers' propensity for 'scrounging', from allies, the enemy, and neutrals is beyond the scope of this thesis, and will not be examined except where this 'scrounging' directly relates to the development or modification of weapons and equipment to enable Australian units to operate more effectively during the jungle campaigns of the SWPA.

⁸¹ Whitelocke, *Gunners in the Jungle*, p. 108. Namely, as Whitelocke states, this entailed signallers under Japanese fire coiling up previously laid cable to re-use.

⁸² Newton (ed), *The Grim Glory of the 2/19*, p. 279/80, 'with the large distances, the lack of vision and control and the vulnerability of comms, potential enemies could congregate and move about freely. Once signal lines were cut, and they always were at the critical moment, comms became hopeless'.

⁸³ DVA, AAWA, Allan McNevin, 2/10th Field Artillery Regiment, Archive No. 1295, transcript, time 1.17.00.00. As evidence that this problem affected other units serving in tropical and jungle theatres, see also Henry, *The Story of the 2/4th Field Regiment*, p. 388. During its service at Balikpapan, Borneo, in July 1945, the regiment had to regularly restring its telephone cables in the trees as the local baboons took to swinging on them, causing them to collapse under the weight and fall into the numerous rivers.

⁸⁴ Newton (ed), *The Grim Glory of the 2/19*, p. 284.

vulnerable to ambush.⁸⁵ In the Kokoda Track battles, several runners simply disappeared whilst carrying messages to or from the front, never to be seen again.⁸⁶ The high rainfall in Malaya added to the problems of communications with waterlogged signal lines being a frequent problem. For two of the infantry battalions, a return to another old method of communications was attempted, with both the 2/18th and 2/20th Battalions experimenting with carrier pigeons.⁸⁷

Another aspect of jungle warfare, which all subsequent Australian units would also have to deal with, was that of river crossing. Training in crossing rivers and creeks was, of course, a standard military technique. However, in the tropics the frequency required marked a great increase on previous experiences.⁸⁸ Engineers or pioneers would not always be available to assist, therefore all units had to practice this undertaking, as the 22nd Brigade war diary makes clear. It stated that part of the coming week's training for the battalions was in 'river crossings using improvised rafts'.⁸⁹ The 2/20th expanded upon this order and listed the types of materials the battalion should use to make the rafts and prescribed a chapter from a training manual to further assist.⁹⁰ The 16th and 17th Brigades, who a year later would train for jungle warfare in Ceylon, do not appear to have had access to this training pamphlet. Nor do they appear to have received any of the lessons learnt by the units in Malaya, and were therefore forced to make improvised rafts in their own river crossing exercises.⁹¹ Although not in itself definitive, this does suggest that the transmission of information

⁸⁵ DVA, AAWA, James Ling, 8th Division Signals Unit, Despatch rider, Archive No. 0015, transcript, time 03.30.30.04.

⁸⁶ This will be examined in chapter five.

⁸⁷ AWM52, 8/3/18, 31 December 1941, 'One pigeon released at LOG Dump at 1400hrs caught at loft at 1615hrs. These trials being carried out in endeavour to improve communications between River Road Patrol and Bn HQ'. *Signals: Story of the Australian Corps of Signals*, Various, Canberra, ACT: Australian War Memorial, 1945, pp. 177-181, contains a chapter on the use of carrier pigeons, including photos of units in Malaya sending messages via pigeon. See also, Wall, *Singapore and Beyond*, p. 63. 'At Endau, carrier pigeons were used, at Krangi we didn't even have them'. On Bougainville in 1945 at least one militia unit would also be forced to resort to the use of pigeons when all other methods of communications had failed. Stan and Les Briggs (eds), *Ike's Marines: The 36th Australian Infantry Battalion 1939-1945*, Loftus, NSW: Australian Military History Publications, 2003, p. 180.

⁸⁸ *Infantry Minor Tactics*, 1941 Australia, LHQ, Melbourne, 1941, Chapter XX, 'The Passage of Water Obstacles', pp.154-5.

⁸⁹ AWM52, 8/2/22, 4-14 April 1941.

⁹⁰ AWM52, 8/3/20, 'Outline Syllabus-Week Ending 12 April '41', FSPB Pam. 4 Pages 55-56' was the suggested reading.

⁹¹ See chapter three, pp. 117-8.

between units, even before 7 December 1941, was not as one would have expected it to be.

All of these struggles to adapt to service in a tropical environment would be repeated in later jungle campaigns, especially Papua and New Guinea. This calls into question how the information gathered by 8th Division prior to 7 December 1941 was collated and what, if any, use it was put to in Australia.⁹² The issue of how valuable Bennett's information was to subsequent Australian training and campaigns will be discussed in greater detail towards the end of this chapter. Suffice it to say at this juncture that the amount of information relayed back to Australia for future use was not voluminous.⁹³ This does not mean, of course, that units were not experimenting with overcoming the difficulties posed by the new environment, merely that the lessons they were learning, on the whole, do not appear to have been transmitted to Australia in a form viable enough for wide dissemination. Whether this was because at this stage – mid-1941 – the real war, as far as the Australian Army was concerned, was taking place in the Middle East and the Mediterranean, and any lessons being learnt during training in Malaya were peripheral to that 'real' war, is open to conjecture.⁹⁴

The first two months after the arrival of the 22nd Brigade in Malaya saw a wide range of experimentation occur. Some would prove of lasting benefit, while some of the

⁹² That information, especially reports written after training exercises, was deemed useful is highlighted by a document in the 2/18th Battalion war diary. It stated that 'the importance of training reports from Coy is again stressed, as on them, to a certain extent, future Syllabi are based'. AWM52, 8/3/18, 'Syllabus 21/25 Apr 41', 19 April 1941. Unfortunately the 8th Division unit war diaries do not contain any of those company or battalion training reports, so it is impossible to judge how much information, or what sort of lessons, were being transmitted to brigade or division and thence back to Australia and the Directorate of Military Training for incorporation into forthcoming syllabi.

⁹³ In comparison the 16th and 17th Brigades, during their four months on Ceylon, sent back monthly reports on various topics including training ideas, equipment alterations, additions and suggestions, as well as advice on weapons, unit war establishments and medical problems. A search of the relevant battalion and brigade war diaries for the 8th Division fails to find an equivalent number of reports.

⁹⁴ Belief that even the forces in Malaya were primarily focused upon the lessons from the Middle East is supported by documents such as a training instruction from October 1941, which discussed how to combat German troops. AWM52, 1/5/19, 'Malaya Command Training Instruction No. 6 of 1941' p. 2. See also, AWM52, 1/5/19, war diary entry for 16 August 1941, 'GOC and officers attended a demonstration of paratroop attacks at Pandang Aerodrome...The demonstration showed the vulnerability of open spaces and aerodromes, and the need for organised defences to meet the same'. Although it is not explicitly stated, the heightened fear of paratroop landings coming only three months after the large scale German paratroop attacks in Greece and Crete was arguably a catalyst for these training exercises.

more obscure attempts do not appear in any later training syllabi.⁹⁵ Much of it was based around the information contained in *Tactical Notes*, while the Australian units developed other solutions independently. In particular patrolling exercises by the infantry units enabled them to obtain information on subjects such as the distances that could be covered through various types of vegetation, the weight that men could be expected to carry, and the problems caused by the high humidity and heat-related medical conditions.⁹⁶

Utilisation of local knowledge was also occurring, the most famous example of which involved a large party of 22nd Brigade troops taking part in an elephant hunt in May.⁹⁷ As their familiarity with the countryside increased, more patrols without assistance occurred. The 2/19th appears to have devoted much consideration to the weight carried by its troops in the field, with the aim of reducing their loads to the bare essentials in the enervating climate.⁹⁸ Newton states that at 'the completion of three months' trials each man was stripped to...30 lbs per man'.⁹⁹ This included his weapon and 40 rounds of ammunition. 30 lbs is far less than infantry units would carry in subsequent campaigns, including on the Kokoda Track, but in those battles resupply was generally far more difficult than in Malaya, necessitating that troops carry all they

⁹⁵ One of the strangest experiments was adapted from *Tactical Notes For Malaya*, and involved the leading member of a section brandishing an eight-foot long bamboo pole held vertically. Two other section members carried similar poles, which they placed as far apart as possible, thereby enabling the section commander, who was carrying a compass, to line up the three poles in a straight line and obtain an accurate compass bearing. As this experiment did not appear again in any of the battalion or brigade war diaries one can assume that the units who trialled this method of direction keeping, did not report on it in a favourable manner. AWM52, 8/2/22, 'HQ 22 Inf Bde Tng Instruction No. 2 Movement through Jungle'. (No date)

⁹⁶ AWM52, 8/3/20, 'Outline Syllabus of Training Week Ending 19 April '41', discusses a training exercise designed 'to check speed in the hour for cross country moves'. According to Wall, 'by October, the problem of skin complaints had largely been overcome and the troops were in exceptionally good health', meaning that it had taken nearly 10 months for the Australians to acclimatise and for their medical staff to develop satisfactory solutions. Don Wall, *Singapore and Beyond, The Story of the Men of the 2/20th Battalion: Told by the Survivors*, East Hills, NSW: 2/20th Battalion Association, 1985 p. 26.

⁹⁷ See Wigmore, *The Japanese Thrust*, p. 71, Burfitt, *Against All Odds*, p. 27 and Janet Uhr, *Against the Sun: The AIF in Malaya, 1941-42*, St. Leonards, NSW: Allen & Unwin, 1998, p. 16.

⁹⁸ Newton (ed), *The Grim Glory of the 2/19*, p. 73.

⁹⁹ Ibid, p. 73. In a later passage (p. 100) Newton states that the troops of the 2/19th, on five-day exercises would carry only 'six lbs of food (mainly rice)'. This is remarkably similar to the diet that the Japanese soldiers existed upon, and similar to that which some Australian soldiers during the Papuan and New Guinea campaigns would be forced to survive on, when their own rations failed to arrive or were inadequate.

would need.¹⁰⁰ How much the above weight changed once battle commenced is not recorded. Although 40 rounds of ammunition does not appear to be a large amount of ammunition, a year later the 2/2nd Battalion marched to the front at Kokoda carrying only 50 rounds per man.¹⁰¹

The many patrols undertaken by the Australians provided valuable learning experience, especially when they were of several days duration. These necessitated that troops more fully adjust to jungle conditions than did day patrols.¹⁰² The 2/18th Battalion war diary discussed the benefits:

Coy exercises extending over 5 days were appreciated by troops more than a shorter exercise on training in camp. In addition numerous problems admin [administration] in the field [became apparent]. The conduct of these exercises necessitated being out in the field at night with the consequent danger of malaria as the troops were on occasions bivouacked in malaria free areas. It is considered that these risks have been taken in order to give vital training and to date only two cases have appeared.¹⁰³

It was believed that these exercises were a vital part of the process of becoming accustomed to operating in jungle and rubber vegetation as an AIF Malaya Memorandum stated:

Fighting in the jungle is far less important than *moving in the jungle*. The jungle can be used as a covered approach and movement through the jungle is most valuable as a means of outflanking the enemy and striking at his L [Lines] of C [Communications].¹⁰⁴

By July most units of the 22nd Brigade believed that they were mastering the methods and tactics of operating in the jungle. To aid them in adjusting to the conditions many units worked with the Sakai – the indigenous Malays who lived in the jungles.¹⁰⁵

They passed on tips about constructing shelters, plants that were safe to eat and ways to trap animals. The 2/20th Battalion in particular noted that ‘the men [are] finding

¹⁰⁰ See Johnston, *At the Frontline*, p. 7. Johnston lists a selection of weights carried by Australian troops in different campaigns over the course of three years of fighting in New Guinea. The average is 60lbs.

¹⁰¹ A. J. Marshall (ed), *Nulli Secundus Log*, Sydney: 2/2nd Australian Infantry Battalion AIF, 1946, p. 82. Exact figures of rounds of ammunition carried vary greatly. A minimum of 50 to a maximum of 150 rounds per rifleman was standard throughout the SWPA.

¹⁰² See, for example AWM52, 8/3/18, ‘Training Syllabus: 4 to 7 Aug. 41’ Appx ‘C’.

¹⁰³ AWM52, 8/3/18, 31 July 1941.

¹⁰⁴ HQ AIF Malaya Memorandum: ‘Jungle Fighting’, 15 Mar 1941 in AWM54 item 553/6/3 (Italics in original).

¹⁰⁵ DVA, Howard, 2/19th Bn, transcript, time: 03.05.00.00.

night work in rubber and light jungle not too difficult'.¹⁰⁶ Later in the same month they would record that:

Trekking coy [Company] now returned. Their five day exercise most successful. Movement and control as well as bivouacking in rubber, jungle and light country was experienced as well as considerable night work. Very many lessons brought out. Stamina of troops very good.¹⁰⁷

As all later units would discover, a higher level of fitness was required of soldiers operating in the South West Pacific Area, then in the Middle East or Europe.¹⁰⁸ To this end, long route marches were still a favourite training tool, although not all believed this was useful preparation for jungle warfare.¹⁰⁹

Notwithstanding their progress with training, some soldiers believed that greater changes, especially with regard to equipment, were needed to further adapt to jungle warfare. Foremost among these was the author of the 2/20th Battalion history who has commented that:

Much of our equipment was considered unsuitable for local conditions – we retained our heavy boots which made movement in the jungle easily detectable. The steel helmet was noisy, any twig hitting it could be heard for some distance. The rifle was designed for open warfare and was cumbersome in close encounters. Our clothing was brown-coloured for the desert.¹¹⁰

Although much of his book has a bitter tone, it is clear that, at least with regard to these points, Wall is largely correct. In subsequent jungle campaigns many units discarded their steel helmets, finding them too hot and awkward in the jungle. All Australian troops would eventually wear jungle green uniforms, and a far greater number of soldiers would carry shorter and lighter weapons, namely sub-machine guns, which were to prove extremely valuable in close quarters combat in the jungle.¹¹¹ At this early stage of Australian experience of operating in the jungle,

¹⁰⁶ AWM52, 8/3/20, 9 July 1941.

¹⁰⁷ Ibid, 18 July 1941.

¹⁰⁸ This is evidenced by the high number of soldiers classified as 'B' Class and therefore not capable of serving in one of the combat arms in the SWPA. Many troops who had served in the Middle East were unable to cope with the increased demands of the tropics and either served in non-combatant units or were discharged from the Army.

¹⁰⁹ Burfitt, *Against All Odds*, p. 27. Burfitt interviewed several ex-battalion members who argued that it would have been more valuable if the time had been spent on the firing range, rather than on route marches.

¹¹⁰ Wall, *Singapore and Beyond*, p. 14.

¹¹¹ With regard to discarding helmets see G. E. Lambert(ed), *Commando, From Tidal River To Tarakan: The Story of No. 4 Australian Independent Company AIF*, Melbourne: 2nd/4th Commando

however, only small changes to accepted practices appear to have occurred and little or no real changes to set War Establishments. It is not possible, at this time however, to argue that the issue of Thompson sub-machine guns occurred due to the recognised benefit of sub-machine guns in jungle warfare, since other Australian units were also beginning to receive them at the same time in the Middle East.¹¹²

One training innovation, which would be used by Australian infantry units for the remainder of the war, and continues in use today, was repeated firearms practice at close range, from 'unorthodox' stances and at fleeting targets. Designed to inculcate rapid or, if possible, automatic reactions when the enemy was sighted, the infantry Battalions devised various firearms ranges which allowed them to train men in these new drills. Soon after they arrived in Malaya, training in 'snap shooting' proved that 'much more of this is necessary before the men are sufficiently efficient to give a good account of themselves in jungle fighting', with only 50% of hits being averaged by the unit.¹¹³ For the 2/19th Battalion much time was spent in April 1941 on:

Bayonet courses and assault practices and snap shooting at close range in jungle. The emphasis in this snap shooting was, that all aimed shooting was to be with both eyes open (to watch the flanks at all times), and that firing should, at close range, be from the waist or hip position, from both the left and right sides of the body, left and right handed...and the main objective was to increase the speed of movement and reaction.¹¹⁴

The 16th and 17th Brigades would 'learn' the same lessons and 'invent' the same close-quarters combat drills in Ceylon a year later, highlighting that the transmission

Association, 1994, p. 263, 'Eric Webb's most vivid recollection is of what happened when the troops landed: 'As we came to disembark [to support 9th Division at Finschhafen in October 1943] about 270 tin hats were dropped into the water'. For the value of automatic weapons see, Ian Morrison, *Malayan Postscript*, Kuala Lumpur, Malaysia: S. Abdul Majeed & Co, 1993, pp.72-3. 'Nearly all the Japanese infantry were armed with tommy-guns or other light automatic weapons. They were ideal for this close-range jungle fighting...It always seemed to me that the rifle's chief use is as an accurate long-range weapon and in Malaya there was rarely an extended field of fire'. (Morrison was an Australian correspondent with *The Times* who was in Malaya during the campaign and escaped before Singapore fell. This is a reprint of his book, first published in 1942. The Japanese used very few sub-machine guns but did employ a great number of light and medium machine-guns. These are presumably what Morrison was referring to.)

¹¹² See, for example, David Hay, *Nothing Over Us: The Story of the 2/6th Australian Infantry Battalion*, Canberra: AWM, 1984, p. 131. While the battalion was stationed in the Western Desert at Mersa Matruh in late March 1941, prior to departure for Greece, they were issued with the Thompson sub-machine gun, with French instruction manuals. For the initial issue of the TSMG in Malaya see AWM52, 8/3/18, 'Syllabus 14/19 April 41'. The entry for Monday 14 April includes a Thompson Sub-Machine gun course which 'as many NCOs as possible will be released to attend. For information on the limited number of TSMGs available see Burfitt, *Against All Odds*, p. 50.

¹¹³ AWM52, 8/3/18, 28 March 1941.

¹¹⁴ Newton (ed), *The Grim Glory of the 2/19*, pp. 88-9.

of knowledge from Malaya was erratic and partial. How a lesson of this seminal importance to the conduct of future infantry operations in jungle terrain could fail to be passed on to other units is difficult to understand.¹¹⁵ One explanation is that at the time – April 1941 – the Australian units in the Mediterranean theatre were fighting for their lives in very different terrain and against a very different enemy than the one that the 8th Division would eventually meet in Malaya seven months later.

The importance of this type of training was being emphasised to the units in Malaya. In particular, the second-in-command of their battalion, Major Anderson, who had served with the British Army in the their East African jungle campaigns during the First World War:

kept on impressing the importance of the training of the junior officers and their men in the use of their weapons for personal defence. This was being done because the likelihood of meeting the enemy suddenly at close quarters in jungle called for a high degree of self-sufficiency in hand-to-hand contact with the bayonet.¹¹⁶

The battalion clearly believed in the importance of these drills and Newton stated that ‘this type of training paid full dividends later when in action at Muar and on the Island’.¹¹⁷ Other units were engaged in similar training, and in some instances developed contact or ‘battle drills’ in which the men were automatically supposed to react in a given manner.¹¹⁸

As the months progressed the training undertaken by 22nd Brigade increased in complexity and scale, and involved exercises with British and Indian units, co-operation with other arms and services, as well as numerous exchanges of personnel between units.¹¹⁹ This measure had a practical as well as social purpose, in that it

¹¹⁵ The problem of information transmission between AIF divisions and the sharing of training ideas and lessons will be dealt with in greater detail in chapters four and five.

¹¹⁶ Newton (ed), *The Grim Glory of the 2/19*, p. 89.

¹¹⁷ Ibid. p. 89.

¹¹⁸ Stewart, *History of the Argyll and Sutherland Highlanders*, p. 2. Stewart states that ‘to increase speed, standard tactical techniques were evolved. This same method, unknown to the 93rd [his unit], was being developed in Britain under the name of “Battle Drill”’. The jungle lends itself particularly to Battle Drill, for conditions are relatively constant compared with open country, and tactical action can thus be made far more automatic’. For examples of the recent development of ‘Battle Drills’ see *Infantry Minor Tactics* 1941 Australia, LHQ Melbourne, 1941, Chapter X, ‘Battle Formations’, pp. 80-88. This chapter, although brief, contains information on section formations and diagrams of battle formation and drills.

¹¹⁹ See, for example, AWM52, 8/3/18, ‘Syllabus 27 Oct-1 Nov 41’ TEWT. ‘A TEWT [Tactical Exercise Without Troops] will be carried out during the week to exercise comd in defensive and offensive operations in jungle. It will be conducted in three stages, a Brigade, Battalion and Coy

aimed at increasing the knowledge base of both units, as well as breaking down divisions between the various national forces. Many of these exercises were designed to test the ability of the units to break camp, board motor transport, move a certain distance rapidly and there debus and be ready for action.¹²⁰ According to Newton, reports on all these exercises were written by the three battalion commanders who submitted them twice weekly to Brigade.¹²¹ Conferences were then held at Brigade HQ, which were attended by all Battalion CO's and the Brigade Commander, after which 'the 22nd Brigade HQ had to submit a comprehensive and detailed report on training for jungle warfare back to Army HQ Melbourne'.¹²² Contradicting this understanding was Curlewis' view that 'no one has collated all the problems we have met and overcome in five months'.¹²³ Judging by the duplication and repetition of prior experimentation, in Ceylon and in Australia in mid-1942, the second view appears closer to the truth. Soon after the above listed discussions took place in late July 1941, 27th Brigade was despatched to Malaya to join the 22nd while the majority of the 23rd Brigade continued its training in Australia.

For the other two infantry brigades of 8th Division, the 23rd and 27th, the period since the departure of 22nd Brigade to Malaya in February had been one of contrasting fortunes. 27th Brigade, with its three infantry battalions spread widely over the eastern seaboard had continued standard infantry training.¹²⁴ By late-May 1941 it was clear

TEWT'. For exchanges of officers see AWM52, 8/3/19, 'Lieutenant N. S. Davidson and Lieutenant R. Wilson and 14 O/Rs returned from 2/Gordon Highlanders. Two officers and 14 O/Rs of 2/Gordon Highlanders returned to own unit', 1 December 1941.

¹²⁰ See, for example AWM52, 8/3/18, 'Tactical Exercise – 22 Aust Inf Bde and Att Tps' 17 April 1942. Also, Newton (ed), *The Grim Glory of the 2/19*, p. 104.

¹²¹ Newton (ed), *The Grim Glory of the 2/19*, p. 72.

¹²² Ibid. Newton further states that this report 'was to form the basis of all jungle training manuals which were to be published for use in Northern Australia and New Guinea areas'. Unfortunately this report does not appear in any of the battalion war diaries, the 22nd Brigade war diary, or the 8th Division war diary. As such, discussion on its importance or relevance to future Australian training manuals or syllabi must remain speculative. Newton's discussion of the regular conferences which took place leading to the production of the report in late July 1941 are, of course, realistic, but without further supporting evidence it is impossible to make a judgement of those reports.

¹²³ Letter, Captain A. Curlewis to his family, AIF Headquarters, 10 July 1941, contained in P. Poole, *Of Love and War: the letters and war diaries of Captain Adrian Curlewis and his family 1939-1945*, Sydney: Lansdowne Press, 1982, pp. 62-3. As with the previous footnote, it has proven impossible to categorically state which side of this argument is correct.

¹²⁴ The 27th Brigade consisted of the 2/26th Battalion (Queensland), the 2/29th (Victoria) and the 2/30th (NSW). Additionally, many of its other units such as 27 Anti-Tank Company, were also training in scattered locations, making co-ordination difficult. After the departure of the 22nd Brigade, however, the units of the 27th Brigade were able to concentrate at the recently vacated Bathurst and Ingleburn training camps.

that the Brigade had been notified of its subsequent move to Malaya. The 27th Brigade's Training Instruction No. 8 stated that:

It is desired that the tng in close country should take the form of graduated exercises from Sec and Pl exercises up. Units should use the country to the north and east of the camp and accustom the tps to moving in the steepest and thickest country available.¹²⁵

By June 1941, these instructions had been received by the battalions under command, who began to implement them. 2/29th Battalion undertook an exercise in late-June, the object of which was to 'exercise a Battalion in movement and fighting in close country'.¹²⁶ The instruction went on to state that one of the lessons that should come out of the exercise was that 'movement in close country must be less dispersed than in open country'.¹²⁷ The various war diaries of the 27th Brigade do not specifically mention information being transmitted from the units already stationed in Malaya, however, it is a reasonable inference to make that once they knew of their forthcoming deployment, those units would have sought to acquire as much information as possible prior to their departure. The one exception to this statement is that both of the brigades still in Australia had been sent copies of *Tactical Notes On Malaya*, as a copy of the aforementioned 8th Division training circular makes clear.¹²⁸ On 15 August the brigade disembarked in Singapore. It would have approximately three months to acclimatise and adjust to the new theatre. Fortunately, the collected training experience of the 22nd Brigade would provide it with a valuable resource to draw upon.

'Doomed Battalions': The 23rd Brigade

1941 was a much more disjointed year for the 23rd Brigade and would eventually see its three battalions widely dispersed as fortress defence units on various islands to the north of Australia.¹²⁹ Prior to their departure at different stages during 1941, the majority of the training undertaken by these units can, at best, be described as erratic. The 2/21st and 2/40th Battalions spent much of the year based in various locations in the Northern Territory, generally near Darwin, preparing to defend the region from

¹²⁵ AWM52, 8/2/27, 'Training Instruction No. 8', May 1941.

¹²⁶ AWM52, 8/3/29, '2/29 Bn Exercise – Wattle Flat Area', 30 June 1941.

¹²⁷ Ibid.

¹²⁸ AWM52, 8/2/23, 'Training' Circular G13, from HQ 8 Aust Div, 27 March 1941. See, also p.9, middle paragraph for more information.

¹²⁹ The 23rd Brigade consisted of the 2/21st, 2/22nd and 2/40th Battalions. The first two were Victorian; the third drew the majority of its personnel from Tasmania with the remainder from Victoria.

attack. The 2/22nd had, by late-April, all arrived at its new defensive location, Rabaul, the main town and harbour on the island of New Britain. Examination of the 2/21st and 2/40th war diaries demonstrates that no coherent and sustained training programme was possible due to the constant calls upon them to provide guard picquets, road-making and other work details.¹³⁰ What training they did manage was a combination of 'recapitulation of elementary tng', interspersed with company and battalion exercises involving working with other arms and services to defend Darwin and surrounding areas.¹³¹

It is clear that by April 1941, the unit commanders had been informed that they would soon be deployed to the north of Australia. In May the 23rd Brigade Commander, Brigadier E. F. Lind, and the commanding officer of the 2/21st Battalion, Lieutenant-Colonel Roach, made a reconnaissance to Ambon and Timor. The state of the defences at the two locations, and the proposed tasks of the two battalions that were to be deployed caused the two officers to raise objections with Army Headquarters in Melbourne.¹³² They were concerned with the size of the forces available to them to carry out the tasks allotted, with the shortfall in weaponry and equipment, the nature of co-operation with Dutch allies, and the level of air and naval support they could expect from Australia.¹³³ Eventually, despite the great reservations of their commanding officers, both battalions would be deployed as planned: the 2/21st to Ambon and the 2/40th to Timor.

Despite the higher level disputes over the role of these units, the training undertaken prior to departure shifted in emphasis, clearly to better prepare them for the challenges

¹³⁰ See, for example, AWM52, 8/3/21, entry for September, which states that 'Due to the consistent and severe draw on personnel for camp construction, both on own camp and at Larrakeyah, tactical and specialist tng by Pls on bivouac has been very limited. The supplying of town picquets has also caused an additional toll on members of the unit'. The entries for many other months, including October and November contain similar complaints. The 2/40th Battalion fared no better, see AWM52, 8/3/34, 'Training Report D Coy 2/40 Bn AIF Week ending 31 Aug 41: Factors Affecting Training: As training is impossible, factors affecting road construction will be dealt with.' (Similarly bitter comments, with regard to interruptions to their training, appear throughout the war diaries of both battalions in this period.)

¹³¹ AWM52, 8/3/21, 'General Comments' for June, July and August 1941.

¹³² The broader strategic questions surrounding the deployment of these battalions have been dealt with elsewhere, and will not be examined in detail in the current thesis. See Joan Beaumont, *Gull Force: Survival and Leadership in Captivity 1941-1945*, Sydney: Allen & Unwin, 1988, pp. 23-40; Henning, *Doomed Battalion*, pp. 28-48, and Horner, *High Command*, pp. 130-137.

¹³³ Henning, *Doomed Battalion*, p. 47. According to Henning 'neither Leggatt on Timor or Roach on Ambon ever received any detailed operational instructions about the roles of their units'.

ahead. A training instruction in late May 1941, which discussed improvised methods of 'tank hunting and destruction', had as one of its two reference materials a booklet entitled 'Japanese Army – Notes'.¹³⁴ Three months later a memo from the 2/21st Battalion to HQ 23rd Brigade stated that 'a syllabus is also being worked up for a special course in Jungle fighting, Traps and Ambushes and Patrols'.¹³⁵ As the year progressed it became apparent that the unit was focusing more of its attention upon training for jungle warfare and to an extent, incorporating the lessons of jungle training.

A training exercise in early November, although strategically tasked at stopping an invasion of Northern Australia, was at the tactical level, practicing jungle warfare methods.¹³⁶ In late November further training based upon jungle warfare learning occurred, with the troops completing small arms courses involving close quarters combat drills.¹³⁷ These training exercises closely resembled the types of training that the 22nd Brigade had developed over the previous nine months in Malaya. As discussed earlier, it has proven difficult to find many documents that show the transmission of lessons from Malaya to Australia. One exception is a two-page training instruction forwarded from 27th Brigade in Malaya, which was received by 23rd Brigade in early November 1941.¹³⁸ Although Beaumont is correct in stating that the 'unsuitable nature of the terrain around Darwin for jungle training meant that training was not directly relevant to the situation that eventually confronted the battalion on Ambon', it is clear that, to the best of its ability, the unit was attempting to prepare itself for the task ahead.¹³⁹ As Amor makes clear, the troops themselves realised that the terrain wasn't the most appropriate for jungle warfare training. He stated of the training in the Northern Territory:

¹³⁴ AWM52, 8/3/21, 'Tng Instruction No. G. 3' 22 May 1941.

¹³⁵ AWM52, 8/3/21, 'Secret' 9 August 1941, attached as an appendix to the August war diary.

¹³⁶ AWM52, 8/3/21, '2/21 Bn. Tng Exercise No. 14 Two Sided Coy Exercise', 7 November 1941. The lessons listed were 'gaining of contact in country with limited observation' [and] 'testing sub-unit intercom in similar country'.

¹³⁷ AWM52, 8/3/21, '2/21 Bn Training Cadre' 24/28 November 1941 and the attached appendix 'Bayonet Assault Course'. These training drills involved rapid fire and movement exercises at close range, with troops having to fire from the hip at fleeting targets. Months later in Ceylon, the 16th and 17th Brigades would learn the same lessons as they trained in jungle terrain for the first time.

¹³⁸ AWM52, 8/2/23, 6 November 1941, 'Extracts from 27 Aust Inf Bde Tng Instruction No. 15'. Standard operating procedure would, however, have involved this type of interchange of lessons between units in the same brigade and division on a regular basis. It was also the norm that a copy of the monthly unit war diary would have been forwarded to the parent unit [in this case 23rd Brigade HQ in Darwin] and to LHQ.

¹³⁹ Beaumont, *Gull Force*, p. 23.

So we just continued up there, jungle training then. Had certain times of the year up there the grass, kunai grass grows about six feet high. And that was the commencement of jungle training. But up there it's not jungle in the true sense of the word, it's mainly kunai grass and palms and that sort of stuff.¹⁴⁰

The Commanding Officer of the battalion in late December, however, made it abundantly clear to the Australian Army that his unit would, with the means at its disposal, not be able to hold Ambon for any appreciable length of time.¹⁴¹ That the battalion would be quickly overrun by the Japanese in early 1942 was, ultimately, not due to any deficiencies in its training, or the unsuitability of its Australian locale for teaching jungle warfare tactics. As Beaumont convincingly argues:

The inescapable conclusion is that the training, morale and discipline of Gull Force were irrelevant to the battle for Ambon, given the material dominance of the Japanese.¹⁴²

Any lessons that the embattled members of the 2/21st Battalion learnt from their time on Ambon were lost with them and therefore could not supplement the tentatively growing body of Australian jungle warfare knowledge.

The training development of the 2/40th Battalion followed a very similar trajectory to that of the 2/21st. In early 1942 it would reach a very similar conclusion, overrun by numerically superior Japanese forces on Timor. Prior to that event the unit was attempting, to the best of its ability, to complete the required training, notwithstanding constant interruptions for work parties and sentry picquets.¹⁴³ By July a shift in training emphasis had occurred. The stated object of a training exercise undertaken in late July was to 'exercise Battalion in movement in close country'.¹⁴⁴ In August similar exercises would take place.¹⁴⁵ Mention of 'lecturette [sic] by OC as for Jungle Warfare' in early September seemed to confirm that the unit would soon be altering the focus of its training.¹⁴⁶ When the first aid cadre received a series of lectures on

¹⁴⁰ DVA, AAWFA, Benjamin Amor, 2/21st Bn, Archive No. 0566, transcript, time 2.26.30.00.

¹⁴¹ AWM52, 8/3/21, 'Gull G & I Matters' 24 December 1941. This is a two-page report written by Lieutenant-Colonel Roach on the problems facing him on Ambon. It clearly shows his frustration with LHQ and his belief that he can hold out for no longer than a day or two.

¹⁴² Beaumont, *Gull Force*, p. 57.

¹⁴³ AWM52, 8/3/34, 'Training Report – HQ Coy', period ended 24 May 1941. An examination of this or other training reports for much of the period between May and October 1941 demonstrates that the unit was more often than not engaged in construction or picquet tasks, which severely limited the time available for training.

¹⁴⁴ AWM52, 8/3/34, 'Tactical Exercise' Appx VIII, 29 July 1941.

¹⁴⁵ AWM52, 8/3/34, 'Tactical Exercise' Appx V, 15 August 1941.

¹⁴⁶ AWM52, 8/3/34, 'Training Syllabus No. 2 Pl 2/40 Bn – Commencing 8 Sept 41',

‘aspects of diseases in the tropics’ no further confirmation would have been needed.¹⁴⁷ As the time for their deployment to Timor drew nearer, more time became available for training.

The situation upon their arrival in Timor was similar to that confronted by Gull Force on Ambon. The battalion was expected to fight from half-completed fixed defences with inadequate resources and widely separated responsibilities. The little jungle warfare training they had undertaken was undermined by the inability of the Australian Army to supply them adequately with appropriate clothing, equipment and weaponry.¹⁴⁸ During his visit to the island in October 1941, the battalion commander, Lieutenant-Colonel Youl, had identified the need for the Australians to have uniforms specifically camouflaged for jungle warfare. His practical solution ‘that Dutch uniforms be supplied...The green of the Dutch uniform is suited to the country and very hard to see even at a short distance’ was not taken up.¹⁴⁹ Youl also recommended that the Australian troops be issued with ‘breeches and puttees’, which offered greater leg protection – due to the fact that they were being scratched and infected by the jungle foliage – than did the shorts on issue, but this too appears to have been ignored.¹⁵⁰ Even in the longer-term, neither of these recommendations was implemented, and the Australian soldiers on Timor and Ambon met the Japanese in the same uniforms as their comrades fighting the Germans and Italians in North Africa.

More disturbing is the fact that nearly ten months prior to the Australian Army confronting the Japanese in the jungles of the Owen Stanley ranges, one of the most basic requirements for operating in the jungle – appropriately camouflaged uniforms – was identified, but not acted upon. It may be understandable that the four months between October 1941, when Youl made his recommendations, and February 1942, when the units on Ambon and Timor were overrun, was simply too brief a period for the changes to be implemented. This, however, does not withstand scrutiny with regard to the Kokoda Track battles nearly six months later. That the 39th Militia Battalion, and then the 21st Brigade of the 7th Division would, in July and August

¹⁴⁷ AWM52, 8/3/34, ‘First Aid Cadre – Week 15-19 Sep’ Appx XIII.

¹⁴⁸ Henning, *Doomed Battalion*, p. 55.

¹⁴⁹ Ibid.

¹⁵⁰ Ibid.

1942, have to face the Japanese in uniforms appropriate for the desert, is an indictment on the higher echelons of the Australian Army. This example demonstrates that bringing about change in an organisation such as an army can be extremely difficult and take an inordinate amount of time, even when it is patently necessary.¹⁵¹ That this inability to adapt to the changed circumstances of jungle warfare would cost many Australian soldiers their lives before the introduction of jungle green uniforms in late 1942, highlights the fact that the Australian Army was struggling to cope with the new paradigm. For example, the fact that some 9th Division units, as late as August 1943, had to dye their own uniforms green whilst in Milne Bay, Papua, on the way to the Lae amphibious landings, further indicates the slow pace of change by the Australian Army.¹⁵² It also suggests that Army Headquarters did not believe that there was anything markedly different about operating in tropical jungle. The Papuan campaigns would alter this perception.

The final battalion of the 23rd Brigade, the 2/22nd, had departed for Rabaul, New Britain, in March and April 1941. As with the 22nd Brigade units that had recently been despatched to Malaya, the time on board ship was used to impart to the troops information about their destination.¹⁵³ Soon after arrival, modification to webbing, haversacks and other means of carrying ammunition was instituted, and recommendations sought from the companies. This suggests that problems related to the changed climatic and terrain conditions were being addressed.¹⁵⁴ Although based in a very different location to its sister battalions, the 2/21st and 2/40th, similar problems faced the 2/22nd on Rabaul. Foremost among these was the need to devote much time and effort to construction of beach and aerodrome defences, and gun

¹⁵¹ David Horner, *Blamey: The Commander in Chief*, St. Leonards, NSW: Allen & Unwin, 1998, p. 324. On this page Horner discusses the exchange between Blamey and war correspondent Chester Wilmot, with regard to the necessity of jungle green camouflaged uniforms. Blamey clearly believed that they were unnecessary. This will be dealt with in chapter five.

¹⁵² R. P. Serle (ed), *The Second Twenty-Fourth Australian Infantry Battalion of the 9th Division*, Brisbane, Qld: Jacaranda Press, 1963, p. 250.

¹⁵³ AWM52, 38/3/22, 'Voyage Report of Advance Party "L" Force on M/V Neptuna' 24/3/41. This report includes the information that lectures were given on 'tropical hygiene & precautionary measures' and 'pidgin English & treatment & handling of Natives'.

¹⁵⁴ AWM52, 8/3/22, 'Distribution of Ammunition, 23 April 1941. The suggestion was to remove the ammunition pouches from webbing equipment and substitute bandoliers of ammunition slung over the shoulders. As the pouches were affixed to the webbing at the waist, this decision appears to have been motivated by the sweating and chaffing caused the pouches. The bandoliers presumably were believed to alleviate this problem.

emplacements.¹⁵⁵ Aligned with this issue was the fact that, as with the forces that would eventually be sent to Timor and Ambon, those at Rabaul were preparing to defend fixed positions in a township and harbour location. With the harbour being the most important strategic feature of New Britain, this is perhaps understandable. As a consequence, reconnaissance or training exercises in the jungle-clad terrain outside of Rabaul does not appear to have been a priority.¹⁵⁶ Kollmorgen has stated that while ‘a certain amount of training was done out in those areas by just the companies. Well there wasn’t much more, at that stage, there wasn’t much more training one could do’.¹⁵⁷

By late June 1941 changes were beginning to appear with the issue of the battalion’s first training information bulletin. This five-page document discussed numerous experiments carried out by the companies, the majority of them involving improvisation and adaptation of equipment and weaponry already under issue.¹⁵⁸ The first page discussed tests ‘to determine the best dress for troops moving in the jungle’ and a discussion of what tactics to employ in jungle warfare.¹⁵⁹ The problems identified and the conclusions reached closely resemble those arrived at by the 22nd Brigade units in Malaya.¹⁶⁰ This demonstrates that units faced with similar problems with regard to operating and fighting in the jungle, independently arrived at similar conclusions.¹⁶¹ This is notwithstanding the fact that the 2/22nd Battalion war diary makes no mention of *Tactical Notes For Malaya* and as such, they presumably had to create their own training ideas based upon experimentation. Just how useful these experiments sometimes were is, however, open to question. A training exercise in

¹⁵⁵ AWM52, 8/3/22, many entries in the unit war diary for the first four months of the deployment discuss the necessity of defensive construction works and the subsequent reduction in time available for training.

¹⁵⁶ AWM, KMSA, Bill Harry, 2/22nd Bn, Archive No. S908, transcript, page 21. Harry states that ‘they [the unit] didn’t really get out of the settled areas, where it was roaded [sic]. And I was the only troop in the whole of Lark Force that got into the central Baining Mountains’.

¹⁵⁷ AWM, KMSA, Fred Kollmorgen, 2/22nd Battalion, Archive No. S911, transcript, p. 24. Whether this was because of the amount of construction work that was necessary or because no clear training methods had been devised for the terrain is unclear.

¹⁵⁸ AWM52, 8/3/22, ‘Tactical Training Information No. 1’, 25 June 1941, Appendices. These experiments included several different types of improvised explosive devices, made using mortar rounds, grenades and Molotov cocktails, and various anti-aircraft gun measures.

¹⁵⁹ Ibid.

¹⁶⁰ Ibid. The conclusions included problems in ‘maintenance of direction and control’, ‘Co-ordinating the attack owing to unknown and unforeseen obstacles’ and ‘lack of observation to front and flanks’.

¹⁶¹ As discussed earlier, however, these conclusions were not necessarily collated and available for future use.

August stated that ‘coys carried out practice moves through jungle in moonlight. This was not at all difficult owing to the brilliance of the moon’.¹⁶² This statement calls into question just how thick the ‘jungle’ could have been, as even bright moonlight usually failed to adequately illuminate the dense jungles of Papua.

September and October saw the extent and variety of training increase, as the unit attempted to gain a greater understanding of the nature and problems of combat in a jungle environment. 4 September saw the unit conducting ‘section trng [training] in the attack in jungle country – ambush and counter ambush’ while on 8 September it was recorded that ‘conduct of patrols constitutes major portion of company trng’.¹⁶³ Several later entries do, however, call into question just how well the companies were adjusting to working in the jungle.¹⁶⁴ Problems that continued to occur centred around two areas, the overall standard of infantry training, and the unfamiliarity of the environment. The first of these problems was gradually being addressed with courses being run on a regular basis, although the continuing requirement for construction of defensive works would remain an issue.¹⁶⁵ Attempting to overcome the second of these problems, familiarising the troops with operating in the jungle, would prove more difficult and time-consuming.

Two reports written by observers of exercises during this period illuminate several failings that were identified by the units training in Malaya. In thick jungle men tended to move in single file and bunch up, presenting an easy target for ambushers; while at other times the opposite problem was noted, with sections and platoons disjointed and separated from each other, meaning that all control and cohesion was lost.¹⁶⁶ Scouting and observation was poor, with patrols stumbling into ambushes on 75% of occasions.¹⁶⁷ As in Malaya, the 2/22nd set up special assault courses to improve the response times of its men to the sudden and unexpected engagements

¹⁶² AWM52, 8/3/22, 5 August 1941.

¹⁶³ AWM52, 8/3/22, 4-8 September 1941.

¹⁶⁴ AWM52, 8/3/22, 10 September 1941. The entry for this day discusses an ambush exercise in which ‘D Coy sec comds were confused by this turn of events [their chosen targets changing positions] and were unable to gain cover in time to prevent heavy casualties’.

¹⁶⁵ AWM52, 8/3/22, ‘Administrative Instruction No. 3 Talili Bay Section Course’ 14 September 1941.

¹⁶⁶ AWM52, 8/3/22, ‘Comments and Conclusions Two-Sided Exercise Conducted by “A” and “D” Companies’, 1000hrs Mon 8 Sep 41 to 0600hrs Wed 10 Sep 41. The criticism that the men were moving in single-file, and that this was incorrect, contradicts the advice in *Tactical Notes*, appearing to confirm that the 2/22nd did not have access to that training document.

¹⁶⁷ AWM52, 8/3/22, ‘Report on Section in Attack Talili Bay Course’ 4 September 1941.

they would be faced with in jungle warfare. Rapid fire from the hip at ‘moving targets’ was one of the set drills.¹⁶⁸ Major Leggatt, in an instruction to all junior commanders identified that an important ingredient for success in jungle warfare was ‘SPEED in all your operations’.¹⁶⁹

Immediate and instinctive responses to unexpected and close range challenges would be the key to this new form of combat. This, understandably, required frequent and vigorous training in as realistic a situation as possible. Or as Lieutenant-General Rowell would later put it ‘the only way to train for jungle operations is to train in actual jungle’.¹⁷⁰ According to an extract from a 27th Brigade training instruction:

Close nature of the country would necessitate more responsibility falling on junior leaders who will have to make quick decisions and assist higher comds by intelligent anticipation.¹⁷¹

This would require both high levels of confidence in those junior commanders by their superiors, and high levels of training for the section and platoon leaders. As the training in Malaya had identified, jungle warfare would be devolved and small unit warfare. Crucial decisions would be made by corporals, sergeants and lieutenants. Those decisions would have to be made instantly without recourse to superior officers, who would generally not be able to see for themselves the situation that the junior leaders would be making decisions about. As discussed earlier, the very nature of the jungle would stymie communications, thereby both lessening the ability of more senior officers to respond to problems, and increasing the importance of junior NCO’s and officers, out of all proportion to their rank.

Ultimately the 2/22nd would not be able to put into practice its jungle training, and it would defend Rabaul from its fixed defences, in the harbour area and the aerodrome. The same fate would befall it and its sister battalions, being rapidly overrun in early 1942. It is difficult to judge how useful were the war diary entries and training reports

¹⁶⁸ AWM52, 8/3/22, ‘Administrative Instruction No. 3 Talili Bay Section Course’, 14 September 1941.

¹⁶⁹ AWM52, 8/3/22, ‘To All Section Leaders’, 4 September 1941, this was an attachment to the above ‘Report on Section in Attack Talili Bay Course. [Capitalisation in original.] Major Leggatt was acting in command, having recently taken over from Lt-Col Carr.

¹⁷⁰ Lieutenant-General S. F. Rowell, ‘Report on Operations New Guinea Force, 11 Aug to 28 Sep 42’, November 1942, AWM54 519/6/60. Similarly *Notes on Forest Warfare* stated that ‘Training in forest warfare can only be carried out in forest country’, p. 8.

¹⁷¹ AWM52, 8/2/23, ‘Extracts from 27 Aust Inf Bde Tng Instruction No. 15’. This document was attached to ‘23 Aust Inf Bde Training Instruction No. 17’, 6 November 1941.

compiled by the 2/22nd during its time on Rabaul. The rapidity with which it and its two sister battalions were overrun caused great consternation and embarrassment to Army Headquarters and the CGS, who had inadequately prepared, supplied and supported them. Whether this had any bearing upon the apparent lack of interest in any lessons they may have learnt is hard to determine. Even if no tactical lessons were deemed useful, at the very least Youl's suggestions about adopting green camouflaged uniforms should have been acted upon. In this way something of value could have been retrieved from what was a very dark hour in Australian military history. What we can conclude is that the lessons of Malaya appear to have been more widely utilised and disseminated than those of the three battalions of the 23rd Brigade.

'Confidence was unbounded': Final training for 8th Division

Before the fall of those units in January and February 1942, however, the two brigades now in Malaya would be the first Australian troops to meet the Japanese in mid-January 1942. The training of the 27th Brigade closely followed that of the 22nd Brigade, with the additional benefit of the lessons already learnt by that brigade. As with the 22nd, the training undertaken by the 27th in the initial stages would be 'directed towards accustoming all ranks to the climate and to new tactical considerations'.¹⁷² To this end the troops, for the first two weeks after arrival, would begin with individual, section and platoon level exercises, such as route marching, compass work and stalking.¹⁷³ Once again, the importance of *Tactical Notes* to this, and much subsequent training, is clear from the aforementioned training instruction. The system of movement in jungle, according to Training Instruction No.14, was 'clearly set out in "Tactical Notes on [sic] Malaya, 1940" Chap II, para 4. This system will be closely followed and impressed upon troops as normal'.¹⁷⁴ *Tactical Notes* stated that in moving through jungle, 'single file is the only possible formation' and that 'movements must be on compass bearing and by fixed distances'.¹⁷⁵ There followed a description of the type and size of formation to be used, and a guide to how this formation should operate. The fact that the 27th Brigade was following exactly the method laid down in *Tactical Notes* suggests that no fundamentally significant alterations had been devised by 22nd Brigade during its time in Malaya.

¹⁷² AWM52, 8/2/27, 'Tng Instn No. 14', 20 August 1941. Appendix 20 to August war diary.

¹⁷³ Ibid.

¹⁷⁴ Ibid, p. 2.

¹⁷⁵ *Tactical Notes For Malaya, 1940*, General Staff, AHQ, Melbourne, 1940, Chapter II, p. 8.

Like the men of the 22nd Brigade before them, the newly arrived troops would at first find the new climate and terrain confronting and have difficulty in adjusting. Heckendorf recounted that:

They took us on route marches, and in fact one man died as a result. You see we weren't used to the humidity, and with the sweat under your arms, your shirt was like a foam, great foam dripping...and quite a few collapsed, in the heat and humidity.¹⁷⁶

For other members of the 2/30th Battalion:

The deep watches of the night were strange and eerie. The chatter of monkeys, the squawking of nightbirds, the chirrup of insects, falling twigs and queer slitherings and rustlings kept the sentries' imaginations active.¹⁷⁷

As with the 22nd Brigade, it would take time and considerable repetition and reinforcement of lessons to gain confidence in the unfamiliar territory. Every subsequent unit, which had to serve in the South West Pacific Area, would face similar adjustment problems. For the men who had served in other theatres, adjusting to the strange and eerie jungle would be as difficult as confronting an alien and fanatical enemy.

Many of the problems that the earlier battalions had faced – especially involving communications and observation – had now become apparent to the new arrivals. In particular the foreshortened distances in jungle and rubber, which stymied observation and impinged upon accurate and effective support by mortars and medium machine guns, were noted.¹⁷⁸ The only solution forthcoming was to practice 'intercomm and fire direction by telephone and VT'.¹⁷⁹ Signals units were ordered to experiment to determine at what ranges, and in what sort of terrain, their equipment was effective.¹⁸⁰ However, both in training and later once combat was joined, communications problems caused by the terrain and climate would continue to greatly affect the Australian units.

¹⁷⁶ Erwin Heckendorf, 2/30th Battalion, AWM, KMSA, S763, transcript, p. 26.

¹⁷⁷ Bayliss, WC, Crispin KE, Penfold, AW, *Galleghan's Greyhounds: The Story of the 2/30th Australian Infantry Battalion*, Sydney: 2/30th Bn AIF Association, 1979, p. 35.

¹⁷⁸ AWM52, 8/2/27, 'Tng Instn No. 14' 'The use of mortars in close jungle and rubber country and in padi fields presents difficulties which should be considered by units, and which will be dealt with in a subsequent tng instn'.

¹⁷⁹ AWM52, 8/2/27, 'Tng Instn No. 15' p. 2.

¹⁸⁰ Ibid. See, also AWM52, 8/3/26, '2/26 Bn AIF Training Circular' 25/31 August 1941, which reiterates the lessons to be learnt, contained in the Brigade training directive.

Another problem, although not created by the Malayan conditions, but one that would nonetheless adversely affect the Australian Army's performance against the Japanese, was that of its equipment. As discussed in chapter one, many of the units despatched to the Middle East in late 1940 and early 1941 departed well below their war establishment, and this problem had not improved by the time the 27th Brigade arrived in Malaya.¹⁸¹ This situation affected most units, from infantry to signals and artillery.¹⁸² In mid to late December 1941, after the Japanese attacks had occurred, Bren light machine-guns and Thompson sub-machine guns were still being issued to infantry units. That these standard infantry weapons, vital to the units in any form of warfare, but none more so than jungle warfare, could arrive so late is difficult to understand.¹⁸³ Many units had still not received 2-inch mortars or sufficient grenades. To overcome some of these deficiencies, some infantry units were forced to improvise.¹⁸⁴ Improvisation, by the men on the ground, to meet and overcome the new challenges of jungle warfare would continue to be necessary until the end of the war. Eventually, however, the frequency with which this necessity arose would decrease, as the Australian Army adapted and gained experience in the jungle.

For some artillery units in Malaya things were no better than for the infantry, with the 4th Anti-Tank Regiment being equipped with Italian weapons captured on the battlefields of the Western Desert by the Australian 6th Division and shipped to Malaya.¹⁸⁵ It would be late-December before the 2/15th Field Regiment would receive the last of their new 25-pounder artillery pieces. The only test firing and calibration possible occurred well after the Japanese invasion.¹⁸⁶ These problems hampered the preparations of the Australian Army at a time when those units were desperately

¹⁸¹ For the units deployed to the Middle East and North Africa there was usually more time once they had arrived for extensive training and to be fully equipped prior to action. That this was not, however, always the case, as was highlighted in chapter one with regard to the assault on Bardia.

¹⁸² Wall, *Singapore and Beyond*, p. 31, discusses the multitude of weapon and equipment problems.

¹⁸³ Bayliss, *Galleghan's Greyhounds*, p. 73. 'Tommy guns and Bren guns, particularly the former, were weapons new to the troops in Malaya.' Although beyond the purview of the current study, this supply situation would continue to affect Australian units until at least 1943.

¹⁸⁴ AWM52, 8/2/19, 10 October 1941, 'Routine Order No. 118', which ordered that '1.5 lb jam tins will in future be held by Coys. These are for use as templates in shrapnel mines'. The same routine order later stated that units would continue to keep mines and 'render a return of the number of tins on hand on 10 Nov to Bde HQ'.

¹⁸⁵ AWM54, 4/4/4, entries for 19/20 through to 30 July. Many of these weapons were incomplete and the Light Aid Detachment had to make temporary sights so that the unit could use them. Only two weeks before the Japanese attack, the unit was still attempting to make its weapons operational.

¹⁸⁶ Whitelocke, *Gunners in the Jungle*, pp.58-9.

trying to overcome the myriad of issues that the new environment posed. It was an unnecessary additional burden.

Soon after their arrival in Malaya, the Brigade Commander and battalion Commanding Officers went on a reconnaissance and information gathering tour of the Kluang and Mersing areas since, if war broke out, they would be stationed in those areas.¹⁸⁷ They also discussed the terrain and training ideas and problems with their counterparts in the 22nd Brigade. Notwithstanding this, an examination of any week's war diary entry demonstrates that the newly arrived units relied upon three main sources of training information, the already mentioned *Tactical Notes*, the various *Small Arms Training (SAT)* manuals and the ubiquitous *Infantry Training* manual.¹⁸⁸ Combined with the regularly issued Brigade training instructions, these were the sources from which all training exercises appear to have been drawn. Substantially different or new techniques were not introduced to training by the 27th Brigade after their arrival. It appears that they followed the ideas and programmes already being used by the 22nd Brigade, a fact confirmed by the Brigade Commander, Brigadier Maxwell.¹⁸⁹

In the time available to them before the Japanese attacks, the 27th Brigade soon moved onto larger scale exercises, as the 22nd Brigade had done before it. As far as the units were concerned these were beneficial, and they felt that with each passing day they were becoming more competent and accustomed to operating in jungle or rubber.¹⁹⁰ By 7 December, all the Australian units appear to have been confident in their own

¹⁸⁷ R. W. Christie, *A History of the 2/29 Battalion 8th Australian Division AIF*, Stratford, Vic: High Country Publishing, 1991, p. 28.

¹⁸⁸ There were a series of SATs, each covering topics such as 'bayonet fighting' 'parade drill' and 'musketry'. All basic training skills training was based upon the information therein. As was discussed in chapter one, *Infantry Training* was the 'bible' of the junior infantry officer, and contained within its 250 pages details of every topic thought relevant to an infantry officer. *Infantry Training: Training and War 1937* and *Infantry Training: Supplement: Tactical Notes for Platoon Commanders, 1937*, London: HM Stationary Office, 1938, were published by the British Army and subsequently re-issued for the Australian Army. For reference to them see AWM52, 8/3/30, 'Syllabus of Training', Period 8-13 September 1941.

¹⁸⁹ AWM 67 Gavin Long papers 2/109 and 3/140. Also AWM 3DRL/1892, Private Papers of Brigadier Taylor and AWM PR 85/42 Taylor. According to Lodge, *The Fall of General Gordon Bennett*, p. 50. Maxwell stated: 'what I want to emphasise is: the training in Malaya was due to Taylor. I only carried on his methods'.

¹⁹⁰ Magarry, *The Battalion Story*, p. 43. See also Bayliss (et al), *Galleghan's Greyhounds*, pp 45, 51-2, 58; Lodge, *The Fall of General Gordon Bennett*, p. 50.

ability to match and overcome the Japanese.¹⁹¹ The occasional report suggests, however, that some tactical problems had not been solved. An entry in the 2/18th Battalion war diary in mid-November, after that unit had been in Malaya for nine months, demonstrates that the problems of defence in jungle terrain had not been adequately dealt with.¹⁹² It was all too easy for men to infiltrate between battalions and even company and platoon defensive positions in thick jungle. Combined with this issue were the communications problems, which had never been adequately solved, and an unexpected problem with minefields that was identified only after the fighting had begun.¹⁹³ Foreshadowing the problems that would cause great suffering in the Kokoda and Beachhead campaigns, the 27th Brigade would attempt to address 'evacuation of wounded in both jungle and rubber'.¹⁹⁴

The issue of how confident the Australians should have been in their ability to match the Japanese is a complex one. The Australian Army had trained hard during its time in Malaya. It had undertaken more rigorous experimentation and training exercises in jungle and rubber conditions than any other troops, with the possible exception of the Argylls, who had been stationed there for more than two years. The Japanese, it was believed, were not experienced in jungle operations, and none of their units had the benefit of jungle warfare training.¹⁹⁵ This belief was exemplified in June 1941 by an Australian Army HQ document, which stated that 'Japanese troops have had little experience in bush fighting, and in this particular our troops in Malaya should have a

¹⁹¹ Burfitt, *Against All Odds*, p. 35; Newton (ed), *The Grim Glory of the 2/19*, p. 199.

¹⁹² AWM52, 8/3/18, 14 November 1941. During this exercise in which platoons attempted to filter through fixed defensive positions 'It was found that penetrations did occur and the patrol of one pl would have been pushed in or the road gained in about 4 hrs by an out-flanking movement'. The following statement that 'with shrapnel mines laid, it is possible that penetrations would not have occurred so easily' does not inspire confidence.

¹⁹³ Lodge, *The Fall of General Gordon Bennett*, p. 50; and AWM52, 8/3/20, 21 January 1942. The entry for this date states that 'enemy advanced through A/P minefield on flanks of road, - these minefields generally failed to explode'. AWM54, 553/5/25, an undated report apparently written after the fall of Singapore confirms the minefield problems. [North of Endau] the whole minefield had been flooded by nearly a weeks rain which had rendered the majority of the mines useless. It is believed that only one in ten of the mines exploded'. (The first of these two accounts should have been available to Australia, but the second would not have, therefore making it difficult to determine whether or not the information about waterlogged mines in tropical areas was ever identified as a problem.)

¹⁹⁴ AWM52, 8/2/27, 'Tng Instn No. 18' Tng Policy for Period Ending 1 Nov 41. A brigade level conference attended by COs and RMOs in late-October had been called to discuss the issue.

¹⁹⁵ Bayliss (et al), *Galleghan's Greyhounds*, p. 58, 'The long and indecisive struggle in China and the newspaper propaganda had led many to believe that the Japanese were only "comic opera" soldiers'. Disputing the notion of a paucity of jungle warfare training are Elphick, *The Pregnable Fortress*, p. 189: 'some Japanese units had received specialist jungle training together with training in amphibious landings'. Wigmore, *The Japanese Thrust*, p. 114: 'The Guards Division had served in south China in 1940; in 1941 it had been...in Hainan training for the Malaya campaign'.

distinct advantage over them'.¹⁹⁶ After the fall of Singapore, and the subsequent defeats of other Allied nations in South East Asia, however, it was widely stated that the Japanese were highly trained in jungle warfare tactics.¹⁹⁷ In more recent times several authors have disputed this stance, including Perrett who has correctly identified:

The truth was that they had less practical experience of the jungle than their opponents, a fact which caused them such concern that in January 1941 they established a special unit in Formosa to study the problem while details of the enemy topography, bridges, road and track systems were gathered on the ground itself.¹⁹⁸

Thus it is clear that although some Japanese Army units had undergone jungle warfare training on the islands of Formosa and Hainan in mid to late 1941, for the most part they were not the jungle warfare experts they were later made out to be.¹⁹⁹ None of the fighting that the Japanese had been involved in during the preceding years had taken place in tropical or jungle-clad regions.²⁰⁰ Therefore the Australian belief that they were better trained than the Japanese, at least in jungle conditions, for the forthcoming conflict had some veracity.

The reasons for the defeat lay elsewhere, and in fact were summed up comprehensively in *Tactical Notes for Malaya* prior to the beginning of the conflict.²⁰¹ Under 'enemy characteristics' the booklet stated that the Japanese had a:

High standard of armament and technical training, great physical endurance, few bodily requirements, compared with British troops, ruthlessness. He does not surrender, or take prisoners; a genius for imitation [and] a very high standard, and ample experience of landing operations.²⁰²

¹⁹⁶ AWM54, 923/2/7 and also AWM 54, 56/4/2, 'Japanese Army Minor Tactics' AHQ Melbourne, 6 June 1941, pp.3-4.

¹⁹⁷ Burfitt, *Against All Odds*, p. 38: 'But the major benefit of the Japanese preparations was the jungle training on Hainan island in late 1941'; *The Jap was Thrashed: An Official Story of the Australian Soldier*, Melbourne, AHQ, 1944, p.4.

¹⁹⁸ Bryan Perrett, *Canopy of War: Jungle warfare, from the earliest days of forest fighting to the battlefields of Vietnam*, Wellingborough: Patrick Stephens Limited, 1990, p. 30. See also E. G. Keogh, *South West Pacific, 1941-45*, Melbourne: Grayflower Productions, 1965, p. 71. As Keogh stated, due to the Japanese fixation on the Russians to their North and West and to their current involvement in China, 'Very little thought had been given to the possibility of fighting in South East Asia and the Pacific, and practically no military data about these regions had been collected'.

¹⁹⁹ Masanobu Tsuji, *Singapore: The Japanese Version*, Sydney: Ure Smith, 1960, pp.3-6. Tsuji was a senior operational planning officer for the invasion of Malaya, and was in charge of the Taiwan research unit.

²⁰⁰ Ibid, p.4.

²⁰¹ The more broad-ranging strategic reasons behind the defeat are, of course, beyond the scope of this thesis and have been addressed in numerous other works.

²⁰² *Tactical Notes For Malaya*, pp. 3-4.

Added to this remarkably accurate summation should have been the fact that virtually every Japanese unit that took part in the Malayan campaign had previous combat experience, many units for four years, some for even longer.²⁰³ This information was, of course, well known to the Australian troops at the time, but it was frequently contradicted in lectures given to the men that discussed the inferiority of the Japanese. These lectures were dismissed as ‘crap, because they’ve been fighting in China for years’.²⁰⁴

This underestimation of the Japanese could be attributed to the fact, as Wigmore has highlighted, that they had not defeated ‘a fully-equipped’ modern army ‘since 1905’.²⁰⁵ The Western powers did not rate the Chinese military very highly. Therefore the fact that the Japanese had not managed, in several years of war, to defeat them convinced the British, among others that they were not a force any European army need fear.²⁰⁶ Despite the Japanese being unable to defeat the Chinese, they were nonetheless combat hardened veterans, whereas none of the Allied forces was, does not seem to have been taken into account. Soon the faith the Australians, and their Allies, had in their ability would be put to the test.

Initially, however, the Australian forces had to remain at their defensive positions in Johore, Southern Malaya, and watch with increasing unease the rapid Japanese advance down the peninsula. The majority of time spent in those positions was on patrolling, mapping and improving their positions.²⁰⁷ For many units the outbreak of hostilities saw the long awaited arrival of weapons and ammunition, although even these increases did not bring them all up to full war establishment.²⁰⁸ During the period from 7 December until mid-January, the Australian units attempted to obtain as

²⁰³ Elphick, *The Pregnable Fortress*, p. 189.

²⁰⁴ Burfitt, *Against All Odds*, p. 26. See also Magarry, *The Battalion Story*, p. 56; and, DVA, AAWFA, John Varley, 2/19th Battalion, Archive No. 1220, transcript, time: 05.05.30.04, ‘We all were, yeah. Mm. How hopeless they were and how good we were and we hoped it was true, but it wasn’t’.

²⁰⁵ Wigmore, *The Japanese Thrust*, p. 117.

²⁰⁶ Ibid. See, also, Whitelocke, *Gunners in the Jungle*, p. 56.

²⁰⁷ AWM52, 8/3/30, Appendix D to November 1941 war diary, includes a list of reconnaissance patrols the unit had been undertaking throughout its area of operations in order to increase the units’ skills and to gain greater knowledge of the area. See also Burfitt, *Against All Odds*, p. 35; Wall, *Singapore and Beyond*, p. 31.

²⁰⁸ AWM52, 8/3/30, ‘Diary Record for Month of December 1941’. 2 January 1942. This document lists the battalion as still being short of 14 Bren guns, 6 Thompson smgs, 15 Boy’s [sic] Anti-Tank rifles and 6 2-in mortars. For the artillery units December saw them receiving the remainder of their 25-pounder field guns and completing test firing and calibration shoots. See Whitelocke, *Gunners in the Jungle*, p. 59.

much information as possible on the tactics of the Japanese. As Bayliss stated, 'officers who had been in the north lectured on Japanese methods and gave advice on probable counter-measures to be taken', not all of which was useful.²⁰⁹ On 15 December the first concrete information was received that described enemy tactics. The report appeared to continue the previous trend of downplaying the weapons, equipment and tactics of the Japanese.²¹⁰ It is, however, difficult to see how the description of the Japanese as adopting 'gangster tactics' would have assisted in increasing the body of knowledge of enemy methods. Notwithstanding this, the information was almost definitely widely distributed to the Australian troops.²¹¹

Soon after this brief report, Major Dawkins, GSO2 of 8th Division, returned from an inspection tour of the frontline.²¹² He had been attempting to obtain firsthand information on the fighting, as the Australians had yet to see combat. On 20 December, all Australian units received a three-page message from 8th Division Headquarters, which appears to be a slightly more detailed version of the 15 December report.²¹³ The following day this message was typed up and, according to the author of the 2/19th Battalion 'promulgated to all officers and NCOs'.²¹⁴ Bennett obviously felt it had great value as he included a copy of it in a letter to General Sturdee in Australia. Sturdee forwarded it to the Directorate of Military Training 'to prepare notes so that the locals may get some inside information on Japanese tactics'.²¹⁵ The gradual creation of a body of information on the Japanese and jungle warfare was continuing.

²⁰⁹ Bayliss (et al), *Galleghan's Greyhounds*, p. 76. Much of the inaccurate information appears to have been based upon the continuing spurious ideas of the Japanese military prowess, or lack thereof, that was discussed above.

²¹⁰ AWM52, 8/3/30, 'Intelligence Summary No. 9', 15 December 1941. Of the Japanese rifle it was stated that 'SAA [Small Arms Ammunition] is approx .25...and inflicts very slight wounds. Very small duck egg grenades were used at the initial landings. Anti-personnel aircraft bombs have lead cases, and shrapnel content is not very effective...small mortars, but shell has no blast'.

²¹¹ Ibid. A hand-written note in the margin of the first page stated that 'copies forwarded to all company commanders'. Presumably they then promulgated the relevant information to the men under their command.

²¹² Dawkins had been Brigade-Major of 22nd Brigade but had recently been appointed by Bennett to be one of his senior staff officers.

²¹³ Most of the 8th Division war diaries include the full message, or at the very least reference to it. See, for example AWM52, 8/2/22, 20 December Message from 'KATI'; AWM52, 8/3/30, 20 December Message from 'KATI'. (KATI was the code word for HQ 8 Division.)

²¹⁴ Newton (ed), *The Grim Glory of the 2/19*, p. 156.

²¹⁵ Sturdee to Bennett, 19 January 1942 in AWM54, item 553/6/3, Part 10.

The main points of the message were that the Japanese travelled quickly and were lightly armed, they outflanked and infiltrated through static or linear defences, and cut units off by severing their lines of communications, thereby inducing panic and precipitating retreat.²¹⁶ A reduction in the war establishment of heavy weapons, equipment and transport was a further recommendation to aid in increasing the speed with which the troops could move through the jungle.²¹⁷ The message also reiterated the points about the Japanese weapons and ammunition not being as effective as the British and Australian ordnance. Countermeasures suggested were for units to practice all-round defence and patrol aggressively from their positions.²¹⁸ The Australian units were, however, already employing very similar training methods and felt confident in their ability to utilise their training.²¹⁹

Major Dawkins soon began making visits to various 8th Division units and expanding upon the information he had listed in the messages of 20 December.²²⁰ At approximately the same time Bennett also sent a letter to the Australian forces, which contained similar information to that supplied by Dawkins.²²¹ This, among other things, has lead many authors to argue that Bennett did not have great input into the creation of Australian doctrine or training, and that it was his subordinates, such as Dawkins, Taylor or Anderson to whom the credit is due.²²² Although the Australians had not yet been involved in the fighting, they were clearly attempting to ensure that when they did join combat their knowledge of the enemy would be as up to date as possible. On 11 January 1942 the 2/29th Battalion destroyed all the bicycles in the Segamat area, in response to receiving information from Brigade HQ that this was one of the main Japanese forms of transport.²²³

²¹⁶ AWM52, 8/3/29, 'Main Features of Enemy Tactics', 21 December 1941.

²¹⁷ It is not clear if units acted upon Dawkins recommendations. Bayliss, *Galleghan's Greyhounds*, p. 66, claims that an increase in the numbers of carriers and mortars occurred at about this time. As this was not one of Dawkins' recommendations it is unclear why this decision was made.

²¹⁸ AWM52, 8/2/22, 'Message' 20 December 1941, p.2.

²¹⁹ Newton (ed), *The Grim Glory of the 2/19*, p. 156, 'Dawkins considered that the training of the AIF to date was suitable for the operations to come'.

²²⁰ AWM52, 8/3/19, Appendix 2, 'Message' December Messages, 25 December 1941, 'Officers will assemble at old camp site lecture by Major Dawkins Northern Operations 1020hrs. One officer per company or equivalent sub-unit to remain on duty'.

²²¹ Wigmore, *The Japanese Thrust*, p. 155.

²²² Moremon, 'Most Deadly Jungle Fighters?', p. 23 and Lodge, *The Fall of General Gordon Bennett*, pp. 207-216.

²²³ AWM52, 8/2/27, Sunday 11 January. Segamat. 'Ordered distribution of tinned foods 2/29 and destruction of all bicycles in township'.

The use of bicycles by the Japanese, and how the Australian Army could emulate the tactic, would exercise the minds of the Australian forces in Australia and Ceylon for several months after the fall of Singapore.²²⁴ Eventually the idea would disappear, but not before much time and energy was expended fruitlessly. As Tsuji argued, the use of the bicycle was a simple substitution for the horses many Japanese units had used in China.²²⁵ It was not a secret weapon; it was a means to an end. That end was rapid movement. The excellent primary road network of Malaya allowed for the employment of bicycles to move large numbers of troops rapidly and cheaply. It was a necessity brought about by the chronic Japanese shortage of motor transport combined with a belief – from their exercises and training on Taiwan – that horses would be unsuited to Malayan humidity, jungle and rubber.

Determining how much information from Malaya was making its way to Australia at this stage is relatively easy to ascertain. Nearly all units appear to have sent copies of their war diaries for December 1941 back to Australia as standard practice, although some were better at this than others.²²⁶ As such, all the collected training information and knowledge of the Japanese weapons and tactics gained since the deployment began in February should have been available to units in Australia. Once battle was joined and the situation became increasingly confused, this system was not followed as rigorously. An examination of various war diaries for January and February 1942 confirms this.²²⁷ Consequently, many lessons learnt during this period could not benefit the forces in Australia, putting a premium on the information supplied by Lieutenant-General Bennett and the small number of other escapees.

Before this happened, the 8th Division in Malaya would be involved in a particularly bloody four weeks of fighting, as the Allied forces retreated down the peninsula.

²²⁴ The attempts to emulate Japanese bicycle troops by Australian forces will be dealt with in chapter three.

²²⁵ Tsuji, *Singapore*, p. 13. 'During the latter half of 1941 the armies which were to become engaged in southern areas [Malaya] abandoned their horses and were reorganized into mixed formations using bicycles and motor transport'.

²²⁶ AWM52, 8/3/26, 'Changi 28 Feb 1942', 'As you are aware 2/26 Bn is one of the few units that wrote up it's diaries daily and forwarded a copy at the end of Dec 41 and Jan 42 to 2 Ech'.

²²⁷ In many instances the battalion and regimental war diaries for January and February were written up when the units were prisoners in Changi. See, for example AWM52, 8/3/29, December 1941-February 1942. The covering entry, signed by Lieutenant-Colonel Pond [who assumed command after Lt-Col Robertson was killed in action during the Muar-Bakri-Parit Sulong battle] states that 'this portion of the war diary [1 Jan to 15 Feb] has been compiled solely from personal recollections of various offrs and OR's'. The entry is dated 1 April 1942.

Several localised engagements would see the Japanese momentum checked, but not decisively enough to halt it, either before or after the Australians joined the battle. The 2/30th Battalion was the first Australian unit to meet the enemy, when it ambushed and killed several hundred Japanese troops at Gemas on 14 January 1942.²²⁸ Unfortunately for the Australians the defeat was not as decisive as it could have been, as communications to the supporting artillery unit failed – probably due to the lines having been cut by infiltrating patrols – and a barrage was not called down to complete the destruction.²²⁹ As training had demonstrated, all forms of communication were unpredictable in jungle and tropical conditions, but even more so during battle.²³⁰

The following day Brigadier Maxwell, 27th Brigade commander, and members of his staff discussed the lessons of the action.²³¹ They came up with nine separate points, dealing with the weapons and tactics of the Japanese, as well as the Australian responses. These disabused several of the previously stated ideas on the ability of the Japanese, but also highlighted the positives of the Australian troops' performance. Maxwell carried the report to 8th Division Headquarters and briefed Bennett on the findings.²³² Within days Maxwell would be imparting the information to units which had yet to see combat.²³³ At this stage the process of knowledge acquisition and exchange was clearly still functioning. As the retreat gathered pace the system gradually broke down.

Soon the other Australian units would also find themselves embroiled in the fighting, with two of them being virtually wiped out.²³⁴ Only days after the battle of Muar-Bakri, Anderson, the commanding officer of the 2/19th, submitted a report to Bennett

²²⁸ See Bayliss, *Galleghan's Greyhounds*, pp.84-118 and also Erwin Heckendorf, 2/30th Battalion, AWM, KMSA S763, transcript, page. 37. The ambush had been rehearsed and the killing ground carefully chosen days beforehand, leaving only the Japanese response to chance.

²²⁹ Whitelocke, *Gunners in the Jungle*, pp.64-5; also Bayliss, *Galleghan's Greyhounds*, p. 87-9.

²³⁰ Whitelocke, *Gunners in the Jungle*, p.76.

²³¹ AWM52, 8/2/27, Thursday 15 January 1942.

²³² Ibid.

²³³ Magarry, *The Battalion Story*, pp. 71-3. Magarry states that 'Maxwell and his brother, Lt-Col Maxwell of the Malacca Local Defence Corps, and the artillery CO called at Battalion HQ, and gave a clear picture of the tactics used in the north...This info was well received, and useful in the days to come'.

²³⁴ The 2/29th and later the 2/19th Battalions fought for several days in the Muar-Bakri-Parit Sulong area, holding up greatly superior Japanese forces. The survivors, out of a total strength of almost 1,800 men, would number less than 500. See Christie, *A History of the 2/29 Battalion*, pp. 43-60; and Newton (ed), *The Grim Glory of the 2/19th*, pp. 198-220.

on the action.²³⁵ In it he stated that the Australians had performed very capably and had, in fact ‘showed complete moral ascendancy of the enemy’.²³⁶ On 24 January Anderson followed up this written report with a discussion with Bennett, who asked him ‘what lessons he had learnt during the last seven days’.²³⁷ Two of these were for a reduction in motor transport, and for an increase in riflemen per battalion. One of the most important of his observations, and one that would be confirmed in later jungle campaigns, was ‘that the establishments of Battalions were short of bodies – riflemen for use in bush warfare or jungle fighting’.²³⁸ This belief that jungle warfare required more men in the rifle companies, less transport and fewer supporting troops can be seen as a precursor to the modified war establishment of the jungle division, created in 1943.²³⁹ One of his other recommendations, that automatic weapons were not as important in jungle warfare as they were in open warfare, did not prove enduring, nor is it certain if it was accepted by Bennett.²⁴⁰ What is certain is that from 1943 onwards – as the Jungle Division War Establishment was introduced – Australian infantry units would lose their transport, anti-aircraft and Bren gun carrier platoons.²⁴¹ The men thus freed up would be available as riflemen. However, for now, no major changes occurred.

It is apparent that while Anderson and others were drawing valuable conclusions from the fighting taking place, Bennett had not completely grasped the lessons of the Malayan campaign. According to Lodge, Anderson stated that:

He never really understood jungle warfare. In my contacts with Gordon Bennett I formed the impression that he did not have a thorough understanding of the capabilities of an infantry Battalion [Bn] under Malayan conditions. He may have been influenced by WWI experience. Their bns had larger manpower – a 4 pl [platoon] coy against a 3 pl coy

²³⁵ Newton (ed), *The Grim Glory of the 2/19th*, p. 227. Lieutenant-Colonel Anderson had assumed command of the force upon the death of the commanding officer of the 2/29th during the battle. Anderson would later receive the Victoria Cross for his actions.

²³⁶ Ibid.

²³⁷ Ibid. 2/29th Battalion, which had suffered more grievously than the 2/19th, had lost most of its officers, including its CO. Anderson, as the surviving senior officer, provided a report of the action.

²³⁸ Ibid, p. 252.

²³⁹ Kuring, *Redcoats to Cams*, pp.175-6.

²⁴⁰ Newton (ed), *The Grim Glory of the 2/19th*, p. 252. Anderson argued that due to the close nature of jungle warfare the benefit of sustained automatic firepower was diminished as machine guns were easily located and dealt with in the jungle. This directly contradicts the findings of later campaigns that highlighted the need for an increase in automatic weapons, especially sub-machine guns. Those units that fought on the Kokoda campaign without their Vickers machine guns, no matter how difficult they were to carry, regretted not having the extra firepower when needed most. See Paull, *Retreat from Kokoda*, pp. 291-192.

²⁴¹ Kuring, *Redcoats to Cams*, p. 176. This will be dealt with in detail in chapter six.

of 1940 vintage. In jungle warfare manpower is much more important than fire power.²⁴²

As Lodge indicates, although Bennett had seen much combat as the CO of an infantry battalion at Gallipoli, and later as a Brigade Commander on the Western Front, most of this experience was in the largely static conditions of the Great War and it is debatable as to whether this was really useful in the rapidly changing Malayan Campaign.²⁴³

It is therefore conceivable that in trying to fully comprehend the Japanese tactics, Bennett would liken them to the war of which he had personal knowledge. In the letter to Sturdee, discussed above, Bennett argued that the Japanese tactics were 'exactly the same as that used by the AIF against the Germans in 1918', in that small infiltrating parties moved through the frontline and threatened rear areas, causing their opponent to withdraw to prevent large numbers of units from being left isolated.²⁴⁴ As Moremon has identified, the Japanese tactics in Malaya more closely resembled German blitzkrieg tactics.²⁴⁵ Strong conventional forces using major roads and spearheaded by tanks, moved as rapidly as possible with support by overwhelming numbers of close air support. When held up they sent troops to outflank and cut the British lines of communications, thereby precipitating withdrawal and allowing the main combat forces to continue the advance down the roads. The speed with which events unfolded and the ferocity with which the Japanese fought unsettled the Allied

²⁴² Lodge, *The Fall of General Gordon Bennett*, p. 193. As chapter six will demonstrate, Anderson was incorrect with regard to firepower in jungle warfare. Australian infantry battalions from 1943 onwards would be far more heavily armed – especially with automatic weapons – than their equivalents in Malaya or the Middle East. His other points about Bennett's lack of modern warfare understanding are nonetheless valid.

²⁴³ Ibid, p.195. Also relevant is that a brigade in the Second World War contained three battalions, not four, as it had during the First World War. This reduction of approximately 1,000 men tactically altered the ways a Brigade Commander could deploy and fight his units.

²⁴⁴ Bennett to Sturdee, 16 December 1941, AWM54, 553/6/3. While Bennett was correct in stating that the Japanese infiltration tactics were 'as old as war itself' he failed to grasp that the majority of their tactics were conventional. Bennett, *Why Singapore Fell*, p. 75.

²⁴⁵ Moremon, 'Most Deadly Jungle Fighters?', p. 26. Eventually it appears that Bennett realised that the Japanese tactics were closely aligned to those the Germans employed in 1940. He stated that the Japanese tactics 'were the methods used with success by the Germans in Western Europe at the commencement of this war'. Bennett, *Why Singapore Fell*, p.225. As his book was published in 1944, after he had retired, it is unclear when he came to this realisation. From his statements during the campaign it is obvious that he had not arrived at this realisation during the campaign.

forces, but their tactics were not new or revolutionary. Nor was the correct response to them, counter-attacks, and all-round defence.²⁴⁶

By the time the last of the British and Australian forces had retreated over the causeway onto Singapore Island, the battle for Malaya was lost. During this period, some lessons were being learnt, foremost among them that the Japanese were not the invincible jungle warfare experts that the rapid advance seemed to suggest.²⁴⁷ This information does not appear to have filtered down to the units back in Australia, and so many viewed them as 'supermen'.²⁴⁸ The final two weeks on Singapore Island, however, would not greatly assist in increasing the level of knowledge of jungle warfare tactics. For the Australians it would merely highlight the inadvisability of asking largely untrained soldiers to fight an experienced and aggressive enemy.²⁴⁹ After the experiences in North Africa recounted in chapter one, it is almost beyond comprehension that 'recently-arrived, practically-untrained recruits' would be flung into battle days after their arrival.²⁵⁰ The several thousand Australian reinforcements who arrived in Singapore in the last few weeks did not make a noticeable difference to the defence, and the units to which they were sent were forced to give them as much basic training as time, and circumstances, allowed.²⁵¹ There was, of course, no possibility of giving the men adequate jungle warfare training. That this lesson would

²⁴⁶ Stewart, *The Argyll and Sutherland Highlanders*, p. 25-6; Bennett, *Why Singapore Fell*, pp. 75-6.

²⁴⁷ Burfitt, *Against All Odds*, p. 67; Newton (ed), *The Grim Glory of the 2/19*, p. 227: Excerpt from Col Anderson's report to Bennett: 'They [the Australians] matched the Japanese in bushcraft and fire control, where the enemy's faults of bunching together and noisy shouting disclosed their dispositions, and enabled the Australians to inflict heavy casualties at a small cost to themselves...In hand to hand fighting they made a poor showing against the superior spirit and training of the AIF.'

²⁴⁸ Mark Johnston, *Fighting the Enemy: Australian soldiers and their adversaries in World War II*, Cambridge: Cambridge University Press, 2000, p. 86. As more Australian units met the Japanese in combat these views diminished; see *The Jap Was Thrashed: An Official Story of the Australian Soldier*, Australian Army, 1944, p. 33,

²⁴⁹ Horner, *High Command*, p. 173; Burfitt, *Against All Odds*, p. 59; Wall, *Singapore and Beyond*, p. 54; Newton (ed), *The Grim Glory of the 2/19*, p. 256 & Christie (ed), *A History of 2/29 Battalion*, pp. 97-99. See also DVA, AAWFA, William Nankervis, 2/29th Bn, Archive No. 0236, transcript, time 03.07.30.00: 'The men I had, had largely never fired a rifle'. The larger controversy over the performance of some Australian units, would later be used by British officers and historians to rebut Bennett's prior criticisms of those British generals. This can be examined in detail in Bennett, *Why Singapore Fell*; Lodge, *The Fall of General Gordon Bennett*; Elphick, *The Pregnable Fortress* (a very anti-Australian interpretation); in recent times several more balanced treatments have appeared including: Brian Farrell, *The Defence and Fall of Singapore, 1940-1942*, Stroud, Gloucestershire: Tempus, 2005; Alan Warren, *Singapore 1942: Britain's greatest defeat*, South Yarra, Victoria: Hardie Grant Books, 2002.

²⁵⁰ Wigmore, *The Japanese Thrust*, p. 290.

²⁵¹ Christie (ed), *A History of the 2/29 Battalion*, p. 100 'The unit thereupon commenced elementary training and we had the unusual situation of new troops learning bayonet training and doing rifle range practice on Bukit Timah range with Japanese bombers operating overhead'.

not be learnt, and would in fact be repeated in New Guinea calls into question the decision making of the higher echelons of the Australian Army.²⁵² On 15 February 1942, Singapore fell, and with it, the majority of those Australian officers and NCOs who could have assisted in creating the basis for an Australian jungle warfare training syllabus.

Bennett's Information: Critical or Not?

The best way for Bennett to have helped Australian forces to defeat the Japanese in future campaigns would have been to despatch a selection of officers and senior NCO's who had seen combat in Malaya.²⁵³ While Percival and Wavell can be criticised for their mistakes during the battle, they had the foresight to send Lieutenant-Colonel Stewart from Singapore so that his knowledge could be used in the future.²⁵⁴ No similar request appears to have been forthcoming from Sturdee or the Chiefs of Staff in Australia. Two days before Singapore fell Malaya Command sent a message to all units that an allocation had been made for 1,000 men to be evacuated. Included in this was an allotment of 100 AIF personnel. According to Broadbent, those chosen were to be 'key or highly qualified technical men who would be of use in the re-formation of units [and further that] Infantry were not to be included'.²⁵⁵ Although it is understandable that Malaya Command wanted to retain all their infantrymen, by 13 February 1942 the fall of Singapore was a fait accompli. It is arguable that they should have been looking to the future and the need to pass on the

²⁵² Peter Brune, *Those Ragged Bloody Heroes*, Sydney: Allen & Unwin, 1991, p.12; Paul Ham, *Kokoda*, Sydney: Harper Collins, 2004, p. 486. Several militia units would be thrown into battle virtually untrained.

²⁵³ Clisby, *Guilty or Innocent?*, p. 65. Clisby also makes the valid point that 'the Australian government would no doubt have wanted information about the entire Malayan campaign from the viewpoint of a senior Australian officer...[and further that]... it is difficult to change doctrine at a high level...[and]... if Bennett had sent back a battalion commander, it is less likely that the Military Board and the government would have been prepared to listen to the extent they did'. Ibid. This, however, ignores the point that the Staff Corps and majority of the senior officers of the Australian Army were so implacably opposed to Bennett, that any information he would have to impart would be received in a jaundiced fashion, unlike a more junior officer, who was not so tainted in their eyes.

²⁵⁴ Wigmore, *The Japanese Thrust*, p. 381, footnote 1: 'In response to a request by Wavell to Percival for an experienced commanding officer who would convey his experiences of Japanese tactics, Colonel Stewart of the Argylls, had been sent from Singapore'. The value of Stewart's information will be discussed shortly.

²⁵⁵ AWM54, 553/6/3, Part 7, 'Escapees – Singapore'. 11 March 1942, Letter to CGS, AHQ Melbourne, from J. N. Broadbent, Col 8 Div. Broadbent went on to state that he and Bennett discussed who to despatch and listed them as 'Signals, Engineers, Ordnance, S.O.M.E's Branch, Reserve MT, Companies and Workshops, Pay, Echelon, Medical'.

lessons of the campaign to those who would subsequently have to fight the Japanese. The knowledge of Colonel Stewart alone was a bare minimum.

Although the Malaya Command message stated that infantry were not to be included in the party, Bennett was experienced enough to have realised that a party of infantry, artillery, engineer, signals and transport officers and senior NCO's to advise Australian formations would have been of greater benefit than the technical personnel suggested by Malaya Command.²⁵⁶ They could have listed the problems their particular corps faced in jungle operations, the solutions they adopted, and the Japanese tactics faced. As Howard has argued:

Where I think he erred, he should have pulled out fellows like Tom Vincent, who was our battalion 2IC [Second in Command], was killed on Singapore Island, [Lieutenant-Colonel] Anderson [the unit CO], other blokes from other battalions, experienced infanteers, both in training and fighting, and made sure they were officially evacuated.²⁵⁷

That Bennett could have made such a decision does appear to confirm the view of Anderson stated earlier that he 'never really understood jungle warfare'. As it became increasingly likely that Singapore would fall that, it is difficult to understand that he would not have ignored or turned a blind eye to the Malaya Command message and chosen to send at least one platoon, company or even a battalion level commander back to Australia. Throughout the deployment of 8th Division to Malaya, Bennett had regularly fought against and, at times, simply ignored directives from Malaya Command. Why he chose not to on this occasion must therefore remain open to conjecture.²⁵⁸ If they had been despatched to Australia, men of the calibre and experience of Anderson, Galleghan or Taylor would have been able to impart critical knowledge on the importance of individual, sub-unit and unit training in jungle

²⁵⁶ Bennett, *Why Singapore Fell*, pp.187-189 clearly followed orders and chose mostly technical personnel 'helpful in munitions and equipment'; Mark Clisby, *Guilty or Innocent?: The Gordon Bennett Case*, North Sydney: Allen & Unwin, 1992, pp. 86-7; Stan Arneil, *Black Jack: The Life and Times of Brigadier Sir Frederick Galleghan*, Melbourne: Macmillan, 1983, pp.103-4.

²⁵⁷ DVA, Howard, 2/19th Bn, time 03.14.00.00. Howard was second-in-command of the Bren gun carrier platoon of the 2/19th Battalion and was one of the lucky few to be evacuated on 13 February 1942. He would later assist in drawing up the reports that Bennett wrote on the campaign.

²⁵⁸ The most famous, or infamous of these occasions, was of course his eventual escape. Although the broader issue is beyond the scope of the current study, it can be asked why he did not ignore this message and despatch personnel who would be truly useful in preparing the Australian Army for future combat against the Japanese. As discussed earlier, all who had trained and seen action in the jungle believed that one of the main tenets of 'jungle warfare' was that it was a junior leader's war. Therefore, the knowledge and experience of some of those junior leaders would surely have been more valuable than a pay corps officer or an NCO in the Transport Corps.

conditions.²⁵⁹ It can be convincingly argued that, notwithstanding the theatre of operations involved, experienced combat officers should have been sent out of the battle zone, prior to capitulation, to pass on the benefit of their knowledge. In not requesting the despatch of at least one jungle warfare experienced company or battalion level officer from the war zone, LHQ was arguably more culpable than Bennett.

Once he arrived in Australia Bennett had to rely on those few men who had managed to escape, and who had seen actual combat in Malaya, to assist him in writing a report on the lessons of the campaign. The relatively junior ranks of those men ensured that a large gap existed between their level of knowledge and that of the divisional commander, Bennett, once again highlighting the mistake in not sending out men like Lieutenant-Colonel Anderson.²⁶⁰ Not only were they all junior, but they were all from the same battalion, ensuring that their knowledge was more confined than would have been the case if a selection of men from across the division had been made.²⁶¹ Nevertheless, the men were soon set to work with Bennett to record as much information as possible.²⁶² Several reports would result from these brainstorming sessions, eventually culminating in the publication of *Army Training Memorandum (ATM) No. 10* in late May 1942.²⁶³ Prior to May a disjointed and erratic system of

²⁵⁹ Anderson would, in discussions with Lionel Wigmore after the war, argue that the most important lesson to come out of the Malayan campaign was the centrality of jungle warfare training. Anderson to Wigmore, [nd] in AWM 67 Long 3/9. See also Clisby, *Guilty or Innocent?*, p. 87. It is hard to disagree with Clisby that, 'if Bennett had felt that it was vital that information concerning Japanese tactics and jungle warfare be conveyed to the Australian government and people, he could have sent back the nucleus of a training team. This nucleus could have included his best brigade commander, his best battalion commander, his best RAA officer, and some very experienced subalterns, warrant officers, sergeants and section commanders...Bennett could have deputed his second-in-command, Brigadier Callaghan, to be in command of this group, with specific instructions concerning the relaying of important information about Japanese tactics and jungle warfare and the Malayan campaign in general'. Ibid.

²⁶⁰ DVA, Howard, time 03.15.00.00. Howard lists the five men as: 'The battalion intelligence officer, I was 2IC of the carrier platoon, Bill Wright was a corporal from the mortar platoon, Reggie Thomas was 2IC of C Company, Captain, and Clem Hunt was a sergeant'.

²⁶¹ Ibid. 'The five fellows that we got out of hospital were all 2/19th Battalion'.

²⁶² Newton (ed), *The Grim Glory of the 2/19*, p. 382: 'we [Lt Howard and the four other men] spent 14 days at Victoria Barracks, Sydney, working with General Bennett on the Jungle Training Manuals which were to form the basis for all jungle fighting for rest of the war by the Yanks and the Australians'.

²⁶³ The full title was *Army Training Memorandum (WAR) (Australia) No. 10, Notes on Japanese Tactics in Malaya and Elsewhere and Tactics to Counter-attack and Destroy the Enemy*.

information dissemination was taking place, evidenced by the large number of partial reports that appeared in various unit collections.²⁶⁴

The first official attempts at collating information from Malaya can be found in earlier issues of the *Army Training Memorandum*. Issues 7, 8 and 9 for respectively February, March and April 1942 all contain small sections on the Japanese Army, their weapons and tactics and measures to employ to defeat them.²⁶⁵ Although specifically related to the experiences of Malaya, rather than addressing jungle warfare as a broader conceptual or tactical idea, these manuals demonstrate that the Australian Army was trying to assimilate the lessons of defeat.²⁶⁶ Being distributed on the basis of one per officer, the information contained within these memoranda was circulating widely, thereby increasing the level of jungle warfare knowledge. Also appearing during this period was a disjointed series of training notes issued by various Military Districts and headquarters containing information from Hong Kong and Malaya.²⁶⁷ A more systematic procedure was clearly necessary.

Soon the Directorate of Military Training would attempt to meet this need by providing units in Australia with up to date, concise and uniform information on Japanese tactics.²⁶⁸ To this end an interim training note was sent to all units in the first

²⁶⁴ See for example AWM54, 923/2/15, 'Notes on Tactics, Equipment etc, of the Japanese Forces', which is a compilation of several earlier reports and training notes, reprinted by HQ Eastern Command and distributed throughout the military district it controlled. Also, AWM54, 937/3/26, 'South Australian L of C – Keswick Barracks, 23/4/42, Training in Jungle Warfare'. The file states that: 'It is desired to stress the necessity for training all units in Jungle Warfare'; AWM54, 937/3/31, 2 B Sub HQ Kit Store, 'Lessons from Operations Malaya Pt I, The Jungle War Atmosphere and training', no date. This file is twenty pages long, covers numerous aspects of jungle warfare and appears to be a subsection of Bennett's eventual *ATM No. 10*. AWM52, 35/5/25, 5 Infantry Training Battalion War Diary 2 April 1942 lists a 'lecture by Dr I. Clunes-Ross entitled "Japan Strikes South", that discussed the features of the Japanese nation, the Imperial Army and how to defeat them.

²⁶⁵ *ATM No. 7* (February 1942) has as its three-page Appendix "D" 'General Notes on the Japanese Army'. *ATM No. 8* includes two pages towards the end entitled 'The Japanese Army: Notes From the Fighting in Northern Malaya', while *ATM No. 9* addresses 'Success in War: Further Notes on the Japanese Army'.

²⁶⁶ *ATM No. 7*, February 1942, p. 34, Under a section entitled 'Counter Measures to Japanese Tactics', the pamphlet states that: 'Armoured Cars are of value in attacking along roads'. Operations at Kokoda, Milne Bay and the Beachheads would soon highlight the pointlessness of this sort of advice.

²⁶⁷ See for example, AWM54, 943/1/4, 'AMF 2nd Military District Training Notes. Nos 1-6 Japanese tactics and equipment'. This ten-page document comprises five two-page training notes, dated from the day after the fall of Singapore – 16 February 1942 – through to early April. They discuss Japanese weapons and tactics, as well as Allied countermeasures.

²⁶⁸ A request from Mr. Spender, Secretary, Advisory War Council had been sent to the Directorate of Military Training, asking what was being done 'in regard to methods of combating Japanese tactics'. NAA, MP729/6, 50/401/256, 'Training in Jungle Warfare'. The folder title is 'Training in Jungle

week in March, prior to the publication of Colonel Brink's *Tactical Methods* or Bennett's *ATM No. 10*. The reply from DMT included the statement that:

“Notes on training in Guerrilla and Jungle Warfare” will be issued shortly, but, in the interim your attention is directed to the attached “Notes on fighting in Malaya”. These have been compiled from various intelligence summaries and reports from other sources and indicate the general lines on which training should take place.²⁶⁹

This eight-page note is dated 17 February 1942 and included, at least in part, information supplied by Lieutenant-Colonel Stewart in an interview with Major-General Allen and Brigadier Berryman a day earlier.²⁷⁰ It reiterated the value of the training undertaken by the 8th Division in Malaya and parts of it closely resembled sections in both Brink's *Tactical Methods* and Bennett's later *ATM No. 10*.²⁷¹

In early March a larger and more detailed training manual became available to the Australian Army. This manual, *Tactical Methods*, would provide the first in-depth examination of Japanese tactics to be circulated to Australian forces.²⁷² Compiled by Colonel Francis Brink of the US Army – who had been an observer stationed in Malaya during the retreat down the peninsula – the twenty-nine page manual examined the weapons, equipment and tactics of the Japanese. Although it did not specifically discuss jungle warfare as a concept the manual did argue that:

Troops operating in this theatre require, in addition to their normal tactical training, thorough instruction in forest warfare and Japanese tactics, and training exercises to meet Japanese methods of operation. Such exercises should be conducted over similar terrain to develop familiarity with forest warfare and Japanese methods of fighting under such conditions...A high degree of physical endurance must be developed of the type necessary to secure the superior mobility of movement necessary for successful operations in forest warfare.²⁷³

Warfare' but the actual file is entitled 'Tactics to Combat Japanese Military Methods', as is the title of the letter, dated 19 March 1942.

²⁶⁹ NAA, MP729/6, 50/401/256, 'Notes on Fighting in Malaya', letter from Lt-Col Johnstone, Director of Military Training. There are two copies of the letter, the first is dated 28/2/42, the second 2/3/42. The distribution list makes it clear that these notes were sent to all Military Districts and Commands in Australia.

²⁷⁰ This interview and the information gleaned from it will be discussed below.

²⁷¹ NAA, MP729/6, 50/401/256, see pages 5 and 8 especially for lessons of Malaya.

²⁷² The manual's full title is *Tactical Methods: A. Characteristics – Japanese Tactics – Equipment and Armament B. Tactics and Equipment for Operations against Japanese Forces*, South West Pacific Zone, 1942, Melbourne: AHQ, 1942. Chapter three will show that it was the primary source of information for the two brigades of the 6th Division training in Ceylon. The third of the 6th Division brigades, the 19th, which was training in the Northern Territory, however, makes no mention of the manual. See AWM52, 8/2/19, for period February to June 1942.

²⁷³ *Tactical Methods*, p. 15. This passage, especially the sentence on training in appropriate areas, echoes the later statement by General Rowell, mentioned earlier.

As well as discussing the Malayan campaign in detail, the booklet included experiences from Allied soldiers who had fought in the Philippines, the Netherlands East Indies and the South-West Pacific islands.²⁷⁴ The breadth of experiences included highlighted the desire to encompass as broad a spectrum of knowledge about Japanese tactics as possible.²⁷⁵ The manual was further modified prior to its publication for Australian forces with additional information from Malaya. On 2 March 1942, soon after Wavell released it for all Allied forces, Lieutenant-General Sturdee, the Australian Chief of the General Staff reissued it with a foreword. He stated that ‘this pamphlet will be studied by all Commanders of the Australian Army and by such other officers as are responsible for its training’.²⁷⁶

Over the course of the next three months, a series of different notes and intelligence summaries on fighting the Japanese were published.²⁷⁷ As with those discussed above, they relate experiences from Malaya, the Philippines and the Netherlands East Indies and deal primarily with repelling a Japanese invasion of Australia.²⁷⁸ Some are intended to inform all Australian troops, while others are corps specific.²⁷⁹ The sheer variety, number and repetition of intelligence summaries and notes that appeared at this time, is a clear indication of a military struggling to come to terms with the shock of the loss of 8th Division in Malaya. It is also an accurate reflection of the time these reports were written. Only four days after the fall of Singapore, Darwin would be bombed on 19 February for the first time. A less fraught period would have seen the publication of fewer, but more relevant and considered manuals than was the case. It also highlights the desperate need to gather whatever information was available. This scramble for information demonstrates the lack of knowledge of the Japanese and the conditions that would be faced in tropical areas. The Australian Army was, however,

²⁷⁴ *Tactical Methods*, see p. 7, 10 and 18 respectively.

²⁷⁵ It also highlights the paucity of information held previous to the outbreak of hostilities, or at the very least the lack of attention paid to the information already held.

²⁷⁶ *Tactical Methods*, p. 2.

²⁷⁷ Some of these are excerpts from Bennett’s 49-page report on Malaya, which would be synthesised to form *ATM No.10*. See, for example AWM54, 937/3/31 ‘Lessons from Operations Malaya, Part 1 Major Tactics: The Jungle War Atmosphere and Training’ and ‘AWM54, 937/3/19, ‘Extracts from Lessons from Operations in Malaya – Jungle Craft’.

²⁷⁸ See, for example, AWM52, 8/2/18, ‘Intelligence Summary No 118’, 27 April 1942, Appendix I. As the file states ‘The following is the report of an interview with a Captain of a Dutch Regiment’.

²⁷⁹ AWM54, 923/2/26, ‘Notes on Japanese Combined Operations – Stages in a Japanese Landing Operation’. This six-page document carries the stamp of the Royal Australian Engineers and was intended to assist them in constructing emplacements and defences to repel a Japanese amphibious landing.

not alone in struggling to find answers to problems that had never been properly addressed prior to the war.²⁸⁰ Both the British and United States Army made requests during this period for whatever information Australia had collated.²⁸¹

The importance of the final two major sources of jungle warfare information – Bennett’s and Stewart’s reports – that appeared at this time, would continue to be debated long after the war had finished.²⁸² After he was ordered to leave Singapore, so that his knowledge and experience could be passed on to a wider audience, Brigadier Stewart was interviewed by Major-General Allen and Brigadier Berryman in Java on 16 February.²⁸³ This interview only lasted a few hours, but both Allen and Berryman believed that Stewart could provide the Australian Army with further valuable information.²⁸⁴ As such:

Colonel CML Elliott [Allen’s chief of staff] and Lieutenant-Colonel KA Wills [a senior intelligence officer on Lavarack’s HQ] accompanied Stewart on the voyage from Java to Colombo to take notes of his experiences with the aim of writing an Australian manual on jungle warfare. Wills later stated that the notes made after Allen and Berryman had interviewed Stewart ‘formed the base of subsequent AMF instructions, long before Lieutenant-General Gordon Bennett produced his brochure on tactics.’²⁸⁵

Insofar as the information provided by Stewart was obtained in mid to late February, Wills is correct. Bennett’s *ATM No. 10* would not be published until more than three

²⁸⁰ As chapter one demonstrated, however, several different nations’ armed forces had produced manuals dealing with military operations in tropical, jungle and mountainous terrain.

²⁸¹ MP729/7, 35/421/65 ‘Lt-Gen Bennett Report on Malayan Campaign’. This file contains a letter from Minister for the Army Forde to the Prime Minister John Curtin confirming the despatch to London of a copy of Bennett’s report on 2 April 1942. The original request had been received on 12 March. See also AWM54, 553/5/15 ‘Lessons From Malaya’. This was sent to ‘War Department, Washington’ from Lt-Col TJ Wells, Assistant Military Attaché in London.

²⁸² See the aforementioned works by Lodge, *The Fall of General Gordon Bennett* and Clisby, *Guilty or Innocent?*; as well as FH. Legg, *The Gordon Bennett Story*, Sydney: Angus & Robertson, 1965. Stewart’s report is less well known, and therefore less controversial.

²⁸³ Copies of the interview, and the subsequent documents created from it, appear in multiple locations and are included in numerous unit files. See, for example, AWM54, 553/3/2, ‘Operations in Malaya’. This thirteen-page document – a copy of the interview – addresses both Allied and Japanese tactics in Malaya and makes training suggestions. It would appear again in mid-October 1942, as part of a 40-page file, AWM54, 937/3/37, ‘Training Notes’ which included lessons from Kanga Force operations, and early lessons from Milne Bay and Kokoda. See, also Wigmore, *The Japanese Thrust*, p.443, footnote 6 and Clisby, *Guilty or Innocent?*, pp. 87-8.

²⁸⁴ See the comments in Peter Dean ‘The Forgotten Man: Lieut-General Sir Frank Berryman’ *The Journal of the Australian War Memorial*, No. 37, October 2002, p. 4.

²⁸⁵ Lieutenant-Colonel Wills quoted in Lodge, *The Fall of General Gordon Bennett*, p. 214. The scathing reference to the information that Bennett provided, as a ‘brochure’, is a clear indication of the level of animosity felt towards Bennett by many in the Australian Army at home. It is also a sign of the widely felt belief that Bennett’s information was not especially important in helping to develop jungle warfare doctrine and training in Australia.

months later, at the end of May 1942. As mentioned earlier, the first publication from the Directorate of Military Training after the fall of Malaya, 'Notes on Fighting in Malaya' is largely derived from the initial interview of 16 February. Being so widely distributed, at such an early stage, it is arguable that Stewart's information was the more valuable, as it was the first official source that units had to utilise.²⁸⁶ Crucially, Stewart emphasised the importance of jungle warfare training, whereas Bennett did not.

In late May, a week prior to the publication of Bennett's *ATM No. 10*, further information obtained from Stewart would be distributed. 1st Australian Army Training Instruction No. 3 'Jungle Warfare', dated 20 May 1942, contained several different reports.²⁸⁷ The first of these was a five-page copy of the interview with Stewart, conducted by Allen and Berryman. Then followed Stewart's two-page report on 'Section Organisation' for jungle conditions.²⁸⁸ A five-page report by Stewart's Brigade Commander, Brigadier Paris, from early February was next.²⁸⁹ Completing the collection of reports was one on transport problems compiled by Brigadier Berryman on the day of the interview with Stewart.²⁹⁰ The covering letter from the First Australian Army demonstrates that copies of this document were sent to virtually every command and unit in Australia. As with Bennett's report, the emphasis in the covering letter is upon the defence of Australia, rather than preparing units for operations in the South-West Pacific Area.²⁹¹ The lessons in the various reports, however, were more readily applicable to jungle warfare learning than Bennett's.

A major criticism of Bennett's *ATM No. 10* is that it was largely premised on defending Australia from Japanese attack.²⁹² Being written after the fall of Singapore

²⁸⁶ Including to the 6th Division units who were soon to arrive in Ceylon. See for example Wigmore, *The Japanese Thrust*, p.443, footnote 6. The use of various training materials on Ceylon will be dealt with in greater detail in chapter 3.

²⁸⁷ AWM54, 937/3/37, 'Training Notes, Tropical and Jungle Warfare No's 1 & 2, First Aust Army Training Instruction No.3'.

²⁸⁸ Ibid, This report was dated 26 June 1941, and was a product of his unit's training prior to the outbreak of the Pacific War.

²⁸⁹ Ibid, Appendix "B" 'Notes on War Experience against Japanese'.

²⁹⁰ Ibid, 'Mobility of Units – Reduction of MT in forward areas', 16 February 1942.

²⁹¹ 'Subject: First Aust Army Tng Instn No. 3 Jungle Warfare', p.1: 'Many of the lessons are applicable to our coastal areas in NE Australia where there are thick woods, mangrove swamps and where in many places MT will be restricted to roads'.

²⁹² Moremon, 'Most Deadly Jungle Fighters?', p. 35: 'Lodge fails to comprehend the fact that Bennett's manual was designed for open warfare in the defence of Australia'.

and soon after the air raids on Darwin on 19 February, this is understandable. It would have been logical for Bennett to produce a document that would help Australian forces to defeat – what appeared at the time to be – an imminent Japanese attack. The index clearly indicates that the manual was written with the defence of Australia in mind, not jungle warfare as such.²⁹³ Much of the manual was aimed at the strategic, rather than the tactical level, and discussed the best dispositions of Australian forces prior to a Japanese landing.²⁹⁴ It also emphasised the need for mobility of forces and the necessity to counter-attack whenever the opportunity arose, basic premises of conventional modern warfare, but not as easy to carry out in jungle warfare. Much attention was devoted to defeating attacks by armoured columns advancing along roads, with accompanying maps clearly relating Malayan experiences.²⁹⁵ Finally, and most crucially, there is almost no mention of training, especially in jungle conditions, which undermines Bennett's contention that his manual:

Was the basis of the new methods evolved to turn the retreat along the Kokoda Trail towards Port Moresby into an advance to Buna and Gona...my methods, based on Malayan experiences, were taught to the AIF units on their return to Australia'.²⁹⁶

For Bennett's report and the subsequent *ATM No. 10* to have been crucial to Australian forces at Kokoda, and in the future, then he should have emphasised the centrality of jungle warfare training. That he failed to do this seriously undermined any claims he made to the importance of the lessons he brought back to Australia. In contrast to Bennett, Stewart asserted that:

It is essential that all men should be taught to dominate their environment and get used to the jungle and thus acquire confidence...the tng [training] must be progressive...fieldcraft games should be played and men should be taught that the jungle gives them a great measure of safety as to find anyone in the jungle is like feeding [sic] a needle in a haystack.²⁹⁷

Even in the larger version of Bennett's report, there was very little mention of the importance of training in jungle conditions as a preliminary to fighting in the jungle.²⁹⁸ The 49-page document does suggest weapons and equipment to use in the

²⁹³ For example, *ATM No. 10*, 'Chapter VI: Probable Japanese Tactics in Australia; Enemy Landings – How to Deal with Him'.

²⁹⁴ *ATM No. 10*, p. 11.

²⁹⁵ *ATM No. 10*, pp. 14-16.

²⁹⁶ Bennett, *Why Singapore Fell*, p. 218.

²⁹⁷ AWM54, 937/3/37, 'Operations in Malaya: Dec 41 – Feb 42' p.4.

²⁹⁸ AWM54, 553/5/16 Pt 1 and 2, 'Report by Major-General Gordon Bennett on Malayan Campaign – 7th Dec to 15th Feb 1942'. See in particular p. 29 'Training'. This is the only page in the report that

jungle as well as the suggestion that training in ‘local warfare’ [and] ‘jungle craft’ would be useful.²⁹⁹ By the time *ATM No. 10* was published, any specifically jungle warfare ideas had been removed, thereby reducing the value of the manual. It is therefore impossible to support Bennett’s claims of the importance of his writings, notwithstanding the beliefs of many of his 8th Division supporters.³⁰⁰ Stewart was better able to convince the senior Australian officers of the need for comprehensive jungle warfare training as a prerequisite to successful campaigning in jungle and tropical areas. The fact remains though that despite more weight being given to Stewart’s report, and his emphasis on the importance of jungle warfare acclimatisation and training, it would not be until after the Kokoda and Beachhead Campaigns that the Jungle Warfare Training Centre at Canungra was established. This demonstrates that Army Headquarters were very slow in appreciating that training specific to tropical conditions was essential if the Japanese were to be defeated. The belief that little tactical or doctrinal change was necessary in order to operate successfully in a tropical environment would take time to alter.

Bennett’s willingness to apportion blame for the defeat in Malaya to everyone, other than himself or the Australian forces under his command, is another reason that his views were sceptically received by higher command.³⁰¹ The manner of his escape, combined with his longstanding antipathy towards the Staff Corps, as Lodge has shown, also militated against anything Bennett had to say.³⁰² Although this argument is valid, the omissions in Bennett’s *ATM No. 10* and the longer report he compiled ultimately ensured that his lessons would not be as valuable as he had hoped. As Lodge has stated, Bennett’s ‘information was useful, but could not be considered vital’.³⁰³ The view of Anderson that Bennett ‘never really understood jungle warfare’

specifically deals with training matters. It makes little mention of the types of training which should be adopted by the Australian Army, rather concentrating upon the inadequacies that Bennett found with current British training methods upon his arrival in Malaya in early 1941.

²⁹⁹ Ibid, p. 29.

³⁰⁰ DVA, Howard, 2/19th Bn, time 03.17.00.00: ‘This manual that he put together that they used in Canungra till the end of the war. Think of the New Guinea campaigns that went on in subsequent years that they never, the principles still applied’. See also, AWM, KMSA, Erwin Heckendorf, 2/30th Bn, Archive No. S763, transcript, page 66, ‘Well we reckoned Bennett did the right thing. Particularly in – his information that he could give to the forces regarding the Japanese tactics was invaluable in the war’.

³⁰¹ Lodge, *The Fall of General Gordon Bennett*, p. 213.

³⁰² Ibid, p. 215, ‘possibly, greater use of Bennett’s knowledge would have been made had there been less ill-will towards him within the army’.

³⁰³ Ibid, p. 215.

appears to be confirmed in Stewart and Bennett's respective reports. In the end the Australian Army was better served by utilising the suggestions of Stewart as the basis for future jungle warfare doctrine and learning, than by anything Bennett had written. For the 16th and 17th Brigades of the 6th Division, who arrived to defend the island of Ceylon in March 1942, it would be Stewart and Brink's information that would be applied, as they became the first of the Middle East veterans to begin the process of adaptation to jungle warfare.

Chapter 3. ‘Completely devoid of ideas’: The 6th Division in Ceylon

For the 16th and 17th Australian Infantry Brigades of the 6th Division training in Syria, the entry of Japan into the Second World War, on 7 December 1941, caused little interruption to their daily routines. Any suggestion that they would soon be preparing to defend the island of Ceylon from Japanese invasion was a possibility not even worth consideration. This would soon change. From late March 1942, when the units began to take their first tentative steps into the jungle, through to the large-scale multi-unit exercises in June, constant improvisation, adaptation and learning was occurring. Although the initial basis of this experimentation was a handful of pamphlets and handbooks derived from the experiences of Malaya, most of which would prove inappropriate to New Guinea, the lessons learnt would stand the units in good stead once they met the Japanese in a tropical environment. Mistakes were made during this period, and soon after their first encounters with the Japanese in New Guinea, it became clear that more learning would be necessary. Notwithstanding this, the time on Ceylon was not wasted. This chapter will examine the experiments carried out and the training undertaken by the two Brigades during their deployment to Ceylon, and demonstrate how, by the end of their deployment, these units were better prepared for the challenges of jungle warfare than any other Australian Army units.

In December 1941, jungle warfare as far as the 6th Division was concerned, was very much a topic of speculation. At the Divisional Conference on 13 December 1941 the main topic under discussion was the battle plan of the Division if it was attacked whilst in defensive positions in the mountains of Syria.¹ Within weeks further changes occurred. On 28 December the first hint that the Division may have been about to move is seen in the minutes of a meeting held to discuss the relief of the 16th and 17th Brigades.² For some of the men of the 6th Division, Syria and its precipitous mountains would eventually be looked back upon as fond memories, when compared to the fearsome ranges they had to confront in the South West Pacific. As Armstrong stated ‘I thought half the mountains in the world were in Syria and the Lebanon, and

¹ AWM 52 1/5/12 (6 Aust Div GS Branch) ‘Notes of Conference Held at GOC’s Mess, Baalbek, 1630hrs, 13 Dec 41’, November-December 1941.

² AWM 52 1/5/12, ‘Minutes of meeting held to discuss relief of portion of 6 Aust Div for tng by 5,000 AIF Reinforcements’, November-December 1941. This paper discusses moving the majority of the 6th Division to Palestine or Egypt so that it could carry out open-warfare exercises. There is, at this stage, no suggestion of a return to Australia.

the other half in Greece; but in the light of our later experiences in New Guinea, these mountains fade into mere molehills'.³ During the final weeks of its deployment in the mountains of Syria, both the 16th and 17th Brigades engaged in training exercises involving the use of mules as pack transport.⁴ Although it could not be foreseen, for some elements of the 17th Brigade, this training would prove valuable a year later when they used mules during their operations as part of Kanga Force in the mountainous jungle terrain around Wau in New Guinea.⁵

Early in the New Year the situation changed again, and any suggestion that the division was soon to depart the Middle East seemed to disappear, as the division stepped up its training, especially with regard to open warfare against armour. On 6 January 1942 Lt-Col D MacArthur-Onslow DSO, the Commanding Officer of the 6th Australian Division Cavalry regiment delivered a lecture to the Division at Wavell Barracks on the 'recent desert campaign against forces of General Rommel' in which 'many lessons from the campaign are stressed.'⁶ Two days later a similar lecture was given discussing the tactical air support aspects of the recent battle.⁷ For the remainder of its time in the Middle East, the 6th Division alternated between the ever-present defensive works, and attempting to devote as much time to training as possible.⁸

With the move back to Palestine from the mountains of Syria, in early January 1942, the focus of the 6th Division returned firmly to large-scale all-arms combat on the open terrain of the Western Desert. The release of a training instruction on 7 January confirmed this. The stated object of the forthcoming collective training, i.e. mechanised infantry supported by artillery, tanks and anti-tank guns, was to inculcate 'in all ranks the confidence that the tank can be mastered' and to develop 'the

³ John Armstrong, cited in Ken Clift, *War Dance: The 2/3rd Australian Infantry Battalion*, Kingsgrove, NSW: P. M. Fowler and 2/3rd Battalion Association, 1980, p. 248.

⁴ AWM 52 8/2/17, 'Training Instruction No. 3' 10 December 1941. This training instruction stated that 'every opportunity is to be taken to use mule teams to carry.' Further that 'this applies equally to specialised sections such as signal and mortar pls.'

⁵ Bolger & Littlewood, *The Fiery Phoenix*, pp. 231-2.

⁶ AWM 52 1/5/12, War Diary, 6 January 1942, January to March 1942.

⁷ AWM 52 1/5/12, War Diary, 8 January 1942, January to March 1942.

⁸ 'Training Instruction No. 3' 10 Dec 41, in War Diary 17 Infantry Brigade December 1941, AWM 52 8/2/17.

procedure for offensive action by composite columns against AFV formations.’⁹ Several weeks of training followed, graduating from section and platoon drills to brigade level exercises involving artillery, armour and cavalry support. When on 9 February the 2/7th Battalion received a warning order, it appeared that movement back to the desert was imminent.¹⁰ With the fall of Singapore and the loss, among other units, of the Australian 8th Division only days later, a further change of plans soon occurred.

For the 16th and 17th Brigades the remainder of their wartime service would take place in another theatre. A new opponent, and a new and difficult environment were to be the challenges. For the 2/7th Australian Infantry Battalion a frustrating month was spent on ‘route marching, company drill and organised sports’ before the Commanding Officer addressed a full unit parade.¹¹ Lt-Col Henry Guinn:

Explained...the reasons for the delay and [outlined the] tactics used by the Japanese in Malaya. He spoke of the urgent need for all not to think of the type of warfare the battalion had experienced, both in training and in action. The men would have to begin learning all over again.’¹²

Nonetheless, the previous combat experience of the majority of the soldiers, even if in a completely different environment, would be of benefit when they next saw action. Several days later the 16th and 17th Brigades boarded transport ships of the convoy codenamed *Stepsister*, and sailed East towards Australia.¹³

The wider strategic implications of the Japanese successes in South-East Asia and the islands of the South West Pacific forced the diversion of the convoy to the island of Ceylon. The 16th and 17th Brigades would remain there for approximately four months, preparing to defend the island and gaining experience in jungle conditions.¹⁴ Although much of the training that these units undertook was based upon the lessons of Malaya that were, at least partly, inappropriate to Ceylon and certainly not relevant

⁹AWM 52 1/5/12, ‘6 Aust Div Tng Instn No 9’, 7 January 1942.

¹⁰ Bolger & Littlewood, *The Fiery Phoenix*, p. 176.

¹¹ Ibid., p. 179.

¹² Ibid.

¹³AWM 52 8/3/6, 10 March 1942.

¹⁴ The third brigade of the 6th Division – the 19th – would bypass Ceylon and return to Australia. Two of its battalions would spend the next fifteen months in defence of Darwin, the third in Western Australia. In mid-1943 they would reform on the Atherton Tablelands in Northern Queensland. This will be examined in chapter six.

to the Kokoda Track or the Wau-Salamaua operations, there was little other information available. Scanty intelligence was better than none at all. Although conditions on the voyage precluded much practical training, the units attempted to keep their soldiers occupied and fit. As the War Diary of the 2/2nd Australian Infantry Battalion stated 'owing to the cramped areas allotted to all units, training other than weapon training, drill and lectures were impossible'.¹⁵

Notwithstanding these problems, the officers of the various units had clearly turned their attention to the problem soon to confront their units: combat in an unfamiliar environment against an unknown enemy. The 17th Brigade held daily discussions during the two-week voyage to address various problems the unit would face when it next went into action. A discussion paper from the Brigade Major of the 17th Brigade was circulated to all officers on board HMT *Otranto* asking officers to address the issue of Japanese 'infiltration methods' and to provide an 'answer to this form of attack'.¹⁶ A document in the 2/2nd Battalion's War Diary demonstrates that the 16th Brigade had also focused its attention on jungle warfare. The paper asked that all platoon commanders:

Submit to this HQ, by 21 Mar 42, answers to the following questions, in addition to any other matters they may wish to report upon: (a) For a forced march in the jungle what items of present eqpt [equipment] could be discarded? (b) What eqpt does the Bn need extra to the present eqpt? (c) What practical training is essential?¹⁷

The paper then listed suggested answers for officers to elaborate on, and requested that 'signals, pioneers and other specialists' should do the same as the infantry officers.¹⁸

These regular training discussions would continue throughout the Brigades' stay on the island. As the convoy neared Ceylon it was clear that, while little information had been received from LHQ with regard to the problems that they would face in jungle warfare, the units themselves were actively addressing the problem. The larger question of whether major tactical or doctrinal changes actually needed to occur in order for the Australians to succeed in jungle warfare does not appear to have been

¹⁵ AWM 52 8/3/2, March-April 1942.

¹⁶ AWM 52 8/2/17, 'Subjects For Coy Comd's Discussion', 16 March 1942.

¹⁷ AWM 52 8/3/2, 'Jungle Fighting', March-April 1942.

¹⁸ Ibid.

addressed.¹⁹ The shock of the new, and of the defeat in Malaya, had convinced most Australian soldiers, whether officers or other ranks, that dramatic change was required if the Japanese were to be defeated. Although there is some validity in Moremon's statement 'that the principles of war were not altered' by jungle warfare, he fails to take into account the major differences the men themselves found between what they had previously experienced and what they now had to confront.²⁰ Almost all Australian soldiers would wholeheartedly agree with the statement that 'the contrast could hardly have been greater between this new environment [the jungle] and the campaigns Australians had fought in the Western Desert, Greece and Syria'.²¹

Within days of their arrival in Ceylon, the Australian units began to send out patrols into the jungle and rubber plantations surrounding their base areas. These patrols were to serve a two-fold purpose, the first of which was to provide a clearer picture of their designated defensive areas in the event of a Japanese invasion. The second, and ultimately more important purpose was to acclimatise the troops to operating in this new environment.²² An entry in the 16th Brigade War Diary a day after their arrival in Colombo shows the growing realisation that real change was going to be required of the Australians if they were to properly adjust to the new terrain and climate. On 26 March:

Brig Lloyd, Major Dawson and COs made a recce of the area in which the Bde will operate, and later called at Div and discussed the area and the role of the Bde Gp. It appears that we are confronted with something entirely different, both as regards country over which we will operate and the methods to be employed.²³

This realisation of the differences between the combat the Australians had been involved in previously, and that they would now face, led to a series of Brigade and Battalion level conferences on how to adjust to the new paradigm.

¹⁹ See, Moremon, 'No 'Black Magic'', pp. 76-85. The major argument in this chapter is that there was a clear over reaction to the initial jungle campaigns and that this led many units to ignore tried and tested doctrine and tactics in their search for answers to the challenges posed by the Japanese and jungle warfare. This issue will be discussed further in chapters five, six and seven.

²⁰ Moremon, 'No "Black Magic"', p. 79.

²¹ Moreman, 'Jungle, Japanese and the Australian Army'. [No pagination]

²² AWM 52 8/3/2, 'Training Week Commencing 30 Mar 42', 29 March 1942.

²³ AWM 52 8/2/16, 26 Mar 42. See also the comments by McCarthy, *South-West Pacific Area First Year*, p. 79.

Several problems, which were beyond the control of the 6th Division, were to hamper the rapid transition to a systematic jungle warfare-training programme. As the 2/2nd Bn War Diary highlights, all units had to juggle the conflicting demands of training and defensive works. Battalion HQ had 'laid down a work and training policy...It is designed to give Coys equal time for tactical training and digging of the perimeter of the camp'.²⁴ With the threat of a Japanese invasion imminent, and the need to construct defences critical, the first three weeks on the island saw much disruption to jungle warfare training programmes. Some units had been unable to devote any time to training, as is demonstrated by the 16th Brigade War Diary. It stated that 'progress has been very good and the programme of work [on the defences at Katukurunda aerodrome] will be finished by Wednesday, when training on forest warfare will be commenced by 2/1st Bn'.²⁵ Balancing these conflicting requirements would remain a vexatious problem for Commanding Officers throughout the course of the war.

The other issue outside the control of the units was the climate of Ceylon. An entry in the War Diary of the 17th Brigade clearly indicates that the initial transition to a tropical climate was difficult for the troops. It stated that 'after half a winter spent in the mountains of Syria, Brigade personnel were finding it difficult to become accustomed to the humid heat of the island.'²⁶ This finding was supported by the 2/1st Battalion, which found that 'the enervating climate [caused the] need for salt replacement...and led to the supply of salt tablets'.²⁷ Approximately two weeks after their arrival in Ceylon, B Company of the 2/7th Battalion noted that 'more training still required mainly due to strangeness to [sic] close country'.²⁸ The editor of the 2/1st Battalion's history, who stated that 'towards the end of April the battalion had started to appreciate that the jungle could be a friend as well as a foe', confirms that the new and unusual environment had, at least initially, caused problems.²⁹

How well the Australian troops adapted to the new environment would become as important as adapting to fighting a new and, at least initially, frightening opponent. As had their comrades in the 8th Division before them become accustomed to the humid

²⁴ AWM 52 8/3/2, April 2.

²⁵ AWM 52 8/2/16, 13 Apr 42.

²⁶ AWM 52 8/2/17, 3 Apr 42.

²⁷ Givney (ed), *The First at War*, p.233.

²⁸ AWM 52 8/3/7, '2/7 Weekly Report, week ending 11 Apr 42', [Handwritten], March-April 1942.

²⁹ Givney (ed), *The First at War*, p.233.

climate of Malaya, so would those of the 6th Division adjust to Ceylon's climate and that of the South West Pacific islands. It would, however, be largely incorrect to state that they ever felt comfortable serving in the jungles of New Guinea or the islands.³⁰ As with virtually all Australian soldiers who served in both the Middle East and the South West Pacific, 6th Division soldiers clearly preferred serving in the former theatre.³¹

The initial jungle warfare training on Ceylon combined individual unit experimentation with exercises adapted from a small number of training handbooks supplied by Land Headquarters, Melbourne and the Directorate of Military Training (DMT). As mentioned in chapter one, *Infantry Minor Tactics* (1941), one of the infantry officers' prescribed texts, was of little value with regard to jungle or 'forest' warfare.³² Being over 220 pages long this comprehensive manual appeared to cover virtually all an officer should know, from how he should demonstrate leadership, to the correct methods of dealing with gas attacks.³³ Unfortunately, as Major Angus Rose, a British officer serving with the Argyll and Sutherland Highlanders in Malaya argued, many of the manuals were:

Pompous, heavy, often platitudinous and otherwise equivocal. The result was that, if anybody had the perseverance and determination to read them (which was no mean feat), they could interpret them in any way they liked.³⁴

Australian training manuals, being almost solely based upon the equivalent British manuals, suffered from the same problems. Worse still, any officer wanting advice on how to operate in tropical jungle or mountainous terrain, had to study a combined total of a mere eight pages on 'Forest and Jungle Warfare' and 'Mountain Warfare' at the rear of the booklet. As Rose argued, this omission was not peculiar to the Australian editions.³⁵ It is therefore not surprising that, at least initially, the majority of Allied units struggled to come to terms with a form of warfare they had never

³⁰ See, for example, the August 1945 diary entries by Sgt Pat Boland, of his time in the Aitape-Wewak Campaign, Bolger & Littlewood, *The Fiery Phoenix*, p. 363.

³¹ Lew Manning, 2/43rd and 2/10th Bns, interview, Adelaide, 7 March 2006. 'I didn't like the jungle. Lots of our men are country blokes used to open spaces. If you had to be at war the desert was a good place to fight in, no civilians, you felt at home. More like Australia. It was the unknown and unseen in the jungle.'

³² *Infantry Minor Tactics*, 1941 (Australia) LHQ, Melbourne, December 1941. This manual was printed too late to be used by the 8th Division in Malaya, but was also printed too early to incorporate any changes or additions that that campaign should have brought about.

³³ *Infantry Minor Tactics*, p. 17 and p. 123.

³⁴ Rose, *Who Dies Fighting*, p. 12.

³⁵ *Ibid*, p. 13.

trained for. An extra problem, which stymied the efforts of the 17th Brigade in training their units in jungle warfare, were the untrained reinforcements that had to be integrated. To this end, an infantry training battalion, similar to that which was already in existence in Palestine, was established in Ceylon.³⁶

Although information on jungle warfare was deficient, some was available, and it was to prove invaluable for the two Brigades as they began to take the first tentative steps in developing an understanding of combat in the jungle. On 28 March, three days after the Brigade had arrived in Ceylon, the 16th Brigade held a Commanding Officer's conference in which training was discussed. Included under the heading 'training' were dot points such as 'fieldcraft and bush warfare' and 'night training'. More important was the statement, 'basis of training to be pamphlets recently issued on Tactical methods of Japanese'.³⁷ The following day, a training instruction from the Adjutant of the 2/2nd Battalion went into greater detail. It stated that the:

Greatest attention must be paid to "M [Military] T [Training] P [Pamphlet] 9 Précis" and "Tactical Methods of Japanese Operations". These pamphlets must be made the basis of training with comd's thoughts directed to movement along lines of enemy methods, and measures to counter enemy methods.³⁸

These two handbooks – which will be discussed in greater detail shortly – were to provide the basis for much of the training undertaken by the two brigades during their time on Ceylon, with the second being a set text for officers attending the 17 Brigade Jungle Warfare School at Akuressa.³⁹

Prior to the establishment of the Jungle Warfare School in early May, units had to devise their own training programs, using the aforementioned training manuals as guidance. As a preliminary to organised training, most units appear to have moved as soon as possible to begin acclimatising their men to the new conditions. Four days after their arrival in Ceylon, the 2/2nd Battalion stated that:

Training for the first week will concentrate on individual and section tng [training] in moving and campaigning in wooded and jungle country; commencing with simple movements of secs [sections] and pls [platoons]

³⁶AWM 52 8/2/17, '17 Aust Inf Bde Adm Instn No. 6 Formation of 17 Australian Infantry Brigade Infantry Training Battalion Ceylon', 12 Apr 42.

³⁷AWM 52 8/2/16, 'Notes on COs Conference 28 Mar 42', Appx H, 28 Mar 42.

³⁸AWM 52 8/3/2, 'Training Week Commencing 30 Mar 42', 29 Mar 42.

³⁹AWM 52 8/2/17, '17 Aust Inf Bde GP Tactical School', 30 Apr 42.

through rubber plantations, and working up to two-sided exercises by day and night.⁴⁰

Similarly, the War Diary of the 2/7th Battalion states on 1 April that ‘this morning all Coys [Companies] marched out from their alarm areas and practised movement through the jungle and maintenance of direction under these new conditions’.⁴¹ The first month of their stay on Ceylon also saw much experimentation and improvisation, as individual units tried to come to terms with the new country.

This improvisation and adaptation centred around two areas, applying the supposedly crucial lessons of Malaya to the current situation, and overcoming the problems posed by the tropical climate of Ceylon. That the Malayan experience held valuable lessons for the future appears to have been readily accepted by the men on Ceylon, even if many officers back in Australia were dubious about the wider applicability of Major-General Gordon Bennett’s information.⁴² For the troops in Ceylon the views of Ken Brougham, a member of the 2/6th Battalion who wrote home that ‘life goes on just the same with plenty to learn in this new type of country and many lessons...from Malaya’, appear to have been the norm.⁴³ Whether or not Bennett’s information was relevant or valuable is largely immaterial; during the first six months of 1942, the lessons of Malaya, no matter who they were written by, were virtually the only ones available to Allied forces.

This is further demonstrated by the conference held by the 2/2nd Battalion to discuss the eight-page ‘Notes on fighting in Malaya’, which had recently been received by the unit.⁴⁴ This interim document had been sent out by the Director of Military Training, to every base and training establishment under the control of the Australian Army. The covering letter stated that:

⁴⁰ AWM 52 8/3/2, ‘Training Week Commencing 30 Mar 42.

⁴¹ AWM 52 8/3/7, 1 Apr 42.

⁴² See, for example, the comments by Col CML Elliott (General Allen’s chief of staff) and Lt-Col KA Wills (a senior intelligence officer on General Lavarack’s HQ) in the previous chapter. Both of them were unequivocal in their stance that it was the information passed on by Lt-Col I. MacA. Stewart, of the 2nd Battalion, The Argyll & Sutherland Highlanders, who had also served in Malaya, that was of more value to the Australian Army than Bennett’s reports. A. B. Lodge, *The Fall of General Gordon Bennett*, Sydney: Allen & Unwin, 1986, pp. 214-5.

⁴³ Hay, *Nothing Over Us*, p. 232.

⁴⁴ AWM 52, 8/3/2, ‘Notes on Conference Bn HQ – 28 Apr. Ref Notes on Fighting in Malaya’, 29 April 1942.

Requests have been received that all re-inforcements [sic] for Malaya and other Far Eastern Theatres of War be trained in jungle warfare.

To that end, you will incorporate this training in all syllabi for courses conducted by you.

“Notes on training in Guerilla and Jungle Warfare” will be issued shortly, but, in the interim your attention is directed to the attached “Notes on fighting in Malaya”. These have been compiled from various intelligence summaries and reports from other sources and indicate the general lines on which training should take place.⁴⁵

The first four pages of the document discussed ‘Japanese tactics – Equipment and Armament’, while the second half suggested counters to these tactics and listed the lessons from the Malayan campaign that should be learnt for future reference.⁴⁶ That much of this document was actually taken from discussions with the British officer Lieutenant-Colonel Stewart, and not Major-General Bennett, was also largely irrelevant to those desperately trying to come to terms with new and hitherto unconventional ways of fighting.

For the Australians in Ceylon the above handbook, combined with ‘MTP 9 Précis’ and ‘Tactical Methods’ would provide the foundations for the development of their jungle warfare-training programme. ‘MTP 9 Précis’, or to give it its full title, *Military Training Pamphlet No 9 (India)*, as discussed in the previous chapter, had been printed for the British Army in 1940.⁴⁷ As Moremon stated, it is not clear that ‘this...handbook was made available to British or AIF units in Malaya’.⁴⁸ If the 2/2nd Battalion were already discussing how best to use the pamphlet in late March, then it can be fairly safely extrapolated that the remainder of the units in Ceylon also had access to it.⁴⁹ Another advantage enjoyed by the Australians on Ceylon, although lacking the more comprehensive jungle warfare training establishments and syllabi that were available in 1943-45, was that they had access to a greater range of information than was available to the units of the 8th Division in Malaya.

⁴⁵ NAA, MP729/6, 50/401/256, Correspondence, Lieutenant-Colonel Johnstone, ‘Training in Jungle Warfare’, 28 February 1942.

⁴⁶ NAA, MP 729/6, 50/401/256, ‘Tactics to Combat Japanese Military Methods’ 26 March 1942, in ‘Training in Jungle Warfare’.

⁴⁷ *Military Training Pamphlet No 9 (India): Extensive Warfare: notes on forest warfare*, Simla (India), 1940.

⁴⁸ Moremon, ‘Most Deadly Jungle Fighters?’, p. 13.

⁴⁹ AWM 52 8/3/2, ‘Training Week Commencing 30 Mar 42’, 29 March 1942.

The final detailed handbook on Japanese tactics and operations in the jungle, that was available to the Australians in Ceylon, came from a more unusual source. Lt-Col Francis G. Brink had been a US 'military observer in Singapore and was an old hand in the Far East', deeply involved in the creation, among other organisations, of ABDA, the American, British, Dutch and Australian Command.⁵⁰ He had witnessed the Malayan campaign and been evacuated prior to the fall of Singapore. As discussed in chapter two, his time had not been wasted, as he prepared a twenty-three page handbook on the Japanese Army, their tactics, weapons and equipment.⁵¹ The work was initially distributed by the British.⁵² It was rapidly acquired by the Australian Army and reprinted with additional information from Malaya. The original British edition states that the work is 'worthy of careful study by everyone who may have to train troops to fight the Japanese'.⁵³ The edition that was distributed to Ceylon goes further than this and includes the statement by Lieutenant-General Vernon Sturdee, Chief of the General Staff, that 'this pamphlet will be studied by all Commanders of the Australian Army and by such other Officers as are responsible for its training'.⁵⁴ As the Commanders' conference on 28 March stated, this pamphlet was to be the 'basis of training'.⁵⁵

The only remaining written sources of information available to Australian troops were the monthly *Army Training Memorandum* printed by the Army, and a three-page document on the use of armour in jungle warfare, which was supplied by General Wavell.⁵⁶ At this time it is difficult to determine exactly what use these pamphlets were put to, or even if the officers on Ceylon received them during the deployment. What is clear is that until the publication of *ATM No.10* 'Notes on Japanese Tactics in Malaya and Elsewhere' in May 1942, which was written by

⁵⁰ Louis Morton, *Strategy and Command: The First Two Years*, Washington DC: Center of Military History, US Army, 1965 (2000Reprint), p. 156.

⁵¹ 'Tactical Methods', Army Headquarters Melbourne, 2nd March 1942.

⁵² See the foreword by General Wavell.

⁵³ 'Tactical Methods', p. 2.

⁵⁴ Ibid.

⁵⁵ AWM 52, 8/2/16, 'Notes on COs Conference 28 Mar 42', Appx H, 28 March 1942.

⁵⁶ AWM 52 1/12/19, 'Notes on Jungle Fighting', 21 Apr 42, in AIF Headquarters Ceylon General Branch, April 1942, Part 1, Appx 48A. The War Diary entry states that 'Copies of attached notes on Jungle Fighting issued by GHQ India were forwarded to all units today'. However, no reference can be found in any Brigade or Battalion War Diary to this document. It only appears in the AIF HQ Ceylon General Branch War Diary. Whether this means it was not actually distributed, or was not deemed useful, is therefore open to conjecture.

Major-General Bennett and his fellow escapees, the very minimal and generalist information contained in those publications could have been of little practical use to officers attempting to train troops in jungle warfare tactics.⁵⁷ Bennett's pamphlet does not appear to have arrived in Ceylon in time for it to have been incorporated into the training syllabus as it was mentioned in neither Brigade nor Battalion War Diaries. The arguments over how valuable was the information supplied by Bennett, and to what extent his booklet was utilised, were discussed in greatly detail in the previous chapter.⁵⁸

As suggested earlier, the other major source of information about operating in a tropical environment came from experimentation and improvisation by the units. For although the aforementioned handbooks contained some valuable initial information, units had to discover for themselves the many problems associated with operating in this new type of country. The lack of detailed information on the subject of jungle warfare was partially offset by the willingness of the various units to experiment in the jungle terrain in which they now found themselves. A week after their arrival, an entry in the War Diary of the 2/7th Battalion gives an example of how one unit began to tackle the new challenges. On 2 April it stated that a 'camouflage school conducted by Lieut Rooke commenced this morning. One man per section per rifle coy will attend and receive instruction in tropical camouflage'.⁵⁹ While this occurred, the remainder of the men 'of the rifle coys have begun practicing the art of climbing palm trees, the object of which is for observation purposes. Each man takes up with him his rifle and pair of binoculars'.⁶⁰ Clearly the difficulties of observation and spotting, greatly exacerbated by dense jungle, had been identified as problems requiring a solution.

⁵⁷ *Army Training Memorandum (War) (Australia) No. 10*, 'Notes on Japanese Tactics in Malaya and Elsewhere', General Staff, GHQ Australia, Melbourne, May 1942. Centre For Army Lessons [Un-numbered box]. *ATMs* No. 7, 8 and 9 for, respectively, February, March and April 1942 contain only a page or two of information, usually in their appendices. This information is often too broad, i.e. discussing the strategic reasons behind the perceived lack of Japanese success in their operations in China, or too narrowly focused upon Malayan conditions, i.e. the usefulness of armoured cars in combating Japanese encirclement tactics. Although the whole of *ATM No 10* was devoted to jungle warfare, this does not necessarily mean it was embraced by the Australian Army, as Lodge demonstrates in *The Fall of General Gordon Bennett*, p. 214-5

⁵⁸ The following chapter, dealing with the training of the 7th Division in Australia will also examine the various training manuals they utilised.

⁵⁹ AWM 52 8/3/7, 2 April 1942.

⁶⁰ AWM 52 8/3/7, 2 April 1942.

As April progressed, two distinct facets of jungle warfare training figured prominently in war diaries and unit histories. One was based on the supposed lessons of Malaya, the other on the nature of the terrain of Ceylon. The first of these, the bicycle as a weapon of war, was short lived and did not feature again once the Australians had left Ceylon. The second, experimentation in river crossing, would become one of the most common, but onerous, tasks that the Australian Army would have to master in every campaign they would be involved in for the rest of the war. The attempted incorporation of bicycles into combat units highlights two larger issues. Firstly, the inadvisability of being rushed into adopting practices or equipment before proper time for evaluation and reflection has been allowed. Secondly, that during a time of such uncertainty and lack of clear direction, rapid judgements are prone to occur, and inappropriate lessons taught. Presumably, if more time had been available for the calm study of the outcomes, lessons and reasons behind the defeat in Malaya, it would have become clear that the first class road network had played a large part in the ability of the Japanese to move rapidly down the peninsula, whether by bicycle, motor transport or tank. The fact that many of their units used bicycles was not a lesson applicable to other jungle warfare campaigns. It appears that to those Allied officers who were desperately attempting to draw lessons from the harrowing defeat, any innovation that could possibly explain how things went so wrong, so quickly, was seized upon.

Until the Japanese were observed using them in Malaya, it is doubtful if anybody in the Australian Army had contemplated using bicycles as anything other than a method of transport around base camps. Within two weeks of their arrival in Ceylon, however, units began receiving bicycles, and not just for use in rear areas. After being issued with five bicycles per company, the diarist of the 2/1st stated that 'these will greatly assist the mobility and efficiency of recce parties and runners'.⁶¹ Although this diarist appeared unperturbed at the inclusion of a new piece of equipment on the War Establishment of his unit, others did not face the changes with such equanimity.

On 16 April the 2/2 Battalion:

Received an issue of 30 odd bicycles, which were allotted to A Coy to form a bicycle Pl. There being no pamphlet on the formation or the

⁶¹ AWM 52 8/3/1, 11 April 1942.

probable role of such a pl, it was devolved on A Coy Comdr's shoulders to workout a drill for their employment and work out a tactical role.⁶²

Accounts in post-war unit histories also highlight the uncertainties and problems that surrounded the correct use and employment of bicycles in a combat role.⁶³ Notwithstanding this, it is clear that both brigades pressed ahead with attempts at utilising bicycles for tasks as varied as transporting Boyes anti-tank rifles and mortars, to their use as adjuncts to Field Ambulance units.⁶⁴ By the end of April the 16th Brigade's experiments with bicycles were advanced enough for it to include a section on methods of employing them in combat, when a report was sent back to Australia.⁶⁵ Nevertheless the report still hastened to add that 'this unit's tng [training] on bicycles is still very much experimental'.⁶⁶ When the time came to depart Ceylon, the value of experiments with bicycles can perhaps be deduced by the fact that in the 48-page document covering all aspects of the 16th Bde's stay, there is only passing mention of bicycles.⁶⁷

Partial explanation for this concentration upon the tenuous lessons of Malaya has already been given, namely that it was virtually the only source of information. A further reason is suggested when reading the comments by the editor of the unit history of the 2/1st Infantry Battalion who stated that 'visiting officers who had escaped from Singapore and Burma told us that the Japs had made extensive use of bicycles, so some were obtained for each coy'.⁶⁸ As mentioned earlier, the immediate adoption of ideas from the Malayan Campaign demonstrates a lack of understanding of the particular circumstances of that campaign, and little evaluation of how applicable those lessons would be to other campaigns. That much of Malaya was covered in jungle, and that future fighting would also largely take place in tropical

⁶² AWM 52 8/3/2, 16 April 1942.

⁶³ See, for example the chaotic experiment carried out by the 2/1st Bn upon bicycles, many of which did not have proper brakes, down a steep hill in Givney (ed), *The First at War*, p. 239.

⁶⁴ AWM 52 8/2/16, 'Carrying 3-in Mortar on Bicycle. Result of Test – 22 May 42', Appx B, 25 May; AWM 52 8/3/7, 5 June 1942. The entry for this day includes discussion on the experiments carried out by the Pioneer Platoon with a modified bicycle fitted with a stretcher to transport casualties more rapidly from the frontline. Mention is not made of who won the dubious honour of playing the casualty.

⁶⁵ AWM 52, 8/2/16, 'Information for Australia' 30 Apr 42, Appendices, April-May 42.

⁶⁶ AWM 52 8/2/16, 'Information for Australia', 30 April 42.

⁶⁷ AWM 52, 8/2/16, 'Glossary of Events', Appx E, July 42.

⁶⁸ Givney (ed), *The First at War*, p. 232.

conditions, were the main criteria for relevance.⁶⁹ That this conflating of battles or campaigns could prove problematic is best brought out in the 17th Brigade's War Diary, which argued that it may not be the most sensible thing to appoint an officer who had fought in Malaya, Burma or the Philippines. To do so would be a problem 'as most officers who had served out in these three campaigns would have a twisted vision of the happenings and be unable to correlate the various events in their true perspective'.⁷⁰ It appears that some other officers did not have the required level of objectivity to share such a judgement, and much time was wasted on largely pointless experimentation, both in Ceylon and in Australia.

Further experimentation continued throughout the month of April, prior to the establishment of the 17th Brigade Jungle Warfare Training School in early May. All of these were premised on working out how best to modify current weapons systems and operational procedures to cope with the changed environment. These experiments ranged from employing bullocks as transport animals, to the employment of Bren gun carriers in the jungle.⁷¹ The problems of using carriers in jungle terrain were highlighted on 4 May:

Bde Comd held a conference of carrier pl [platoon] comds [commanders] at Bde HQ in the afternoon to find out what they had been able to devise as methods to be used in jungle warfare. A few useful ideas were submitted by Capt Bennett 2/5 Bn. 2/7 merely enlarged upon previous ideas propounded by Bde Comd. 2/6 Bn were completely devoid of any ideas at all.⁷²

As Captain Bennett would later record, 'everywhere we went we got bogged or bellied on the logs and stumps' in the jungle and paddy fields.⁷³ Although he did go on to say that 'carriers had their uses if they were closely supported by the infantry', he was appalled upon learning that his carriers had been used as tanks at Buna in December 1942.⁷⁴ A report by the 2/1st Battalion on training exercises involving

⁶⁹ McCarthy, *South-West Pacific Area-First Year*, p. 34. McCarthy posits a plausible explanation for the, at times desperate, clutching at any seemingly useful information. He argued that 'few Australians had much knowledge of them [the islands to the north], and the military leaders mostly shared the general ignorance'. This led to the assumption that all jungle was the same, whether in Papua or Malaya.

⁷⁰ AWM 52 8/2/17, 5 May 1942.

⁷¹ AWM 52 8/3/1, 29 April 42. The entry for this day stated that 'a native of good repute is to be attached to the mortar platoon as from today. An experiment is being held as to the possibilities of bullock transport being used for the 3-in mortar'.

⁷² AWM 52 8/3/17, 4 May 1942.

⁷³ Bennett, *Rough Infantry*, p. 136.

⁷⁴ Bennett, *Rough Infantry*, p 136 and p. 149.

attacks by infantry upon Bren-gun carriers and other vehicles also highlights the dangers they faced when operating in the jungle.⁷⁵ It appears that these lessons were not heeded and unnecessary casualties were sustained at Buna.⁷⁶ Further experiments included the construction of a wire mesh screen to cover the open-topped carriers from hand grenades and these 'proved very strong when being driven through tree foliage'.⁷⁷ As with the bicycle experiments this one does not appear to have ever been used in action, presumably because after the disastrous attack (referred to by Bennett earlier), it was realised that carriers – with or without the grenade screen – were not suitable for this type of terrain.

Not all the improvisation and experimentation carried out during the early weeks on Ceylon was to be wasted. We have already seen that units attempted from the outset to develop an effective and simple method of river crossing. The 2/2nd Battalion conducted experiments in the construction of 'improvised floats for the ferrying of gear across streams and rivers. It was found that an excellent light float could be made from the issue ground sheet'.⁷⁸ Other units also developed various methods of crossing rivers as the 2/7th Battalion history demonstrates:

Interesting exercises and experiments in river crossings, and the use of rivers for speedy advance using improvised boats and craft, kept all members of the battalion very busy, very amused and very wet. These experiments in using natural materials such as vines, bamboos etc., were to be proved in New Guinea.⁷⁹

Similarly, a report in the 16th Brigade War Diary demonstrates that it too was working on river crossing ideas, especially for heavier weapons such as mortars.⁸⁰ Later training in Australia, prior to its final jungle campaign in 1944-45 would see the

⁷⁵AWM 52 8/3/1, 'Report on Unit G (R) Training Period 7 May 42 – 6 June 42', 5 June 42. This report makes it starkly clear that well-trained infantry could, at very little cost to themselves, render unaccompanied carriers - and in fact most mechanised vehicles - worthless in jungle warfare. 'One man using his head should be able to account for a section of carriers. Three to four men can easily handle three tanks of any size. These efforts are only possible in this type of country of course.'

⁷⁶This will be examined in greater detail in chapters four and five.

⁷⁷AWM 52 8/2/16, 24 April 1942.

⁷⁸AWM 52 8/3/2, 8 April 1942.

⁷⁹Bolger & Littlewood, *The Fiery Phoenix*, p. 187.

⁸⁰AWM 52 8/2/16, 25 May 42, 'Notes on Rafts – 3-in Mortar Platoon', Appx A. The 2/1st Battalion, who were the authors of this report, had actually devised a raft that could be mounted on a Bren gun carrier and then demounted and floated across a river.

division revisit and recapitulate these experiments, as the authors of the 2/7th Battalion unit history discuss.⁸¹

Arguably the most useful training carried out by the two Brigades while on Ceylon, at least for the infantry units, involved patrolling, contact and ambush drills, and firing practice on miniature ranges. All of these were, of course, standard infantry training practices, but the very different terrain over which the training was occurring required that they be tackled differently from approaches taken at Puckapunyal or in Egypt. Patrolling and dominating no-mans-land had long been considered crucial to the Australian Army.⁸² *Army Training Memorandum No 11* (June 1942) argued that its importance was, in fact, increased with the advent of jungle warfare.⁸³ Throughout their time in Ceylon all units devoted as much time as possible to ensuring their troops developed confidence in operating in jungle terrain. As the 16th Brigade stated, 'training in close country, movement and fighting have been the main objectives and troops have entered into this training with great interest'.⁸⁴

That some valuable lessons were being learnt, despite the often inappropriate training material, is clear from one of the reports sent back to Australia by the 16th Brigade.⁸⁵ Under the paragraph on training, the document stated that 'in close country and semi-jungle fighting, it is apparent that the fight will be even more a section or group fight. It is suggested therefore, that even more time should be devoted to Sec tng.'⁸⁶ This lesson would be reinforced continuously as the Australians fought their way through New Guinea, Papua and the islands. Command and control in jungle warfare devolved on to small groups of men and required a high degree of training in contact and

⁸¹ Bolger & Littlewood, *The Fiery Phoenix*, p. 301. 'An interesting turn to training and a welcome change of venue for some members was a bn [battalion] ex [exercise] in the Innisfail area. Its main aim was to practise all troops in loading mmgs, three-inch mortars and associated stores and equipment on to rubber floats.'

⁸² See, for example, the chapter on 'Reconnaissance and Protection' in *Infantry Minor Tactics*, which argues that patrolling is one of the 'most vitally important duties' to ensure the safety of any size unit, whether it is a section or a division, p. 101.

⁸³ *ATM No 11* (June 42) Appx A 'Operations in Malaya Dec., '41-Feb., 42', p. 38. 'The importance of patrol training cannot be over emphasised. It is the side which wins the patrol actions which wins the jungle war. It must be remembered that as units and tps [troops] train so they fight, this was proved in Libya and Syria...In 1914-18 our Australian patrols dominated the Germans and paved the way to victory in the ensuing battles.'

⁸⁴ AWM 52 8/2/16, 31 May 42.

⁸⁵ AWM 52 8/2/16, 'Information for Australia', Appx C, 21 May 42.

⁸⁶ AWM 52 8/2/16, 'Information for Australia', 21 May 42.

ambush drills. The phrase 'one-man front' was found to be applicable to many of the jungle campaigns the Australians would face over the next three years.⁸⁷

One lesson that was not formally passed back to Australia, was one that eventually became an accepted practice for jungle warfare. This was the need for an increased number of automatic weapons for frontline units who would be involved in close-quarters battle in the jungle. In the first draft of the 16th Brigade report, a sentence was crossed out, and did not appear in the final copy. It stated that 'the following are recommended to increase the firepower...of the section and group. More automatic weapons, up to even two or three T.S.M.Gs [Thompson Sub-Machine Guns] per section...for very close country only'.⁸⁸ A handwritten comment in the margin beside this line stated that 'GOC [General Officer Commanding, AIF Ceylon] not in favour'. Why the GOC should overrule the recommendations of the units under his command is not clear, as no reason was given for the decision. Notwithstanding this, upon their return to Australia, many of the infantry units took it upon themselves to increase their War Establishment of automatic weapons, prior to their departure for New Guinea.⁸⁹ Soon after this, higher authority must have reconsidered their stance, and an increase in the number of automatic weapons for infantry units serving in the tropics was made.⁹⁰ This demonstrates that valuable lessons had been learnt during the time in Ceylon, even if their value was not always immediately grasped. It also highlights the importance of listening to the men who would actually be required to engage in jungle warfare at the unit and sub-unit level.

To increase realism in training and highlight the need for rapid reactions in close country, several units constructed modified firing ranges near their bases. The 2/7th Battalion noted that 'more movable targets are now under construction for training the

⁸⁷ See, for example Barter, *Far Above Battle*, p. 226. Ibid. She also states that 'at Aitape-Wewak, small group patrolling dominated everything'.

⁸⁸ AWM 52 8/2/16, 'Information for Australia', Appx B, 30 Apr 42.

⁸⁹ *The First at War*, p. 248. The author states that 'the CO arranged an exchange with the 2/1st Field Regiment of 43 rifles for 43 Tommy guns. This had the result of nearly doubling the fire power of the rifle companies for close in fighting in the jungle'.

⁹⁰ AWM 52 8/2/16, 'Notes on Comd's Conference', 8 Sept 42. The entry under 'General' states that '42 extra guns [T.S.M.Gs] will be issued shortly to infantry bns. When these are received 42 rifles will be withdrawn'. This is clear evidence that, at least at unit level, an increase in firepower had been accepted as crucial for combat in the jungle. Bolt-action rifles, appropriate for killing the enemy at 400 yards range, were no match for automatic weapons in the dense jungles of the South-West Pacific, where visibility was often limited to less than ten yards, and the ability to lay down a large volume of fire upon first contact was more important than pinpoint accuracy.

Bn to deal with moving targets and Jungle Warfare’,⁹¹ while the 2/1st Battalion recorded that:

A 25 yd miniature range was built...with practice ammo in excellent supply, the troops had more firing of their weapons and practice in tests of elementary training than the battalion had ever found possible previously. This training proved its worth six months later. [On the Kokoda Track] The Bren gunners excelled at firing from the hip and Tommy gunners also became very proficient.⁹²

That this training was not the norm could be seen from an entry in the 2/2nd Battalion War Diary, which noted that ‘unorthodox shooting was also carried out, i.e. from the hip, with both rifle and Bren gun’.⁹³ The standard prone, kneeling and standing firing positions were found to be too slow to adopt in close country. These ‘unorthodox’ training drills would prove of great value when the Australians found themselves engaged in combat at extremely close range in Papua and New Guinea.⁹⁴

As the Australians experimented, there were occasions when the new terrain caused problems, as the 2/2nd discovered. After a training exercise a participant recorded that:

Jungle training was introduced but the troops met their “completely revolutionary” tactics with some bemusement...one Thursday night we went on a compass march through plantations and across rice fields, pitch dark. Much amusement caused by chaps stumbling down holes into trees and falling over in the paddy fields.⁹⁵

Overall though, the training provided a valuable introduction to the sorts of problems that the units would have to deal with in New Guinea and the islands. Even apparently comical exercises demonstrated to the participants that they would need to alter their thinking in future operations.

For all the troops on Ceylon, the new environment was to prove a challenge and force much adaptation and modification of traditional methods. This was not restricted to the riflemen, as an entry in the Routine Orders of the 2/1st Battalion made clear. Under the sub-heading ‘comms’ the following appeared, ‘signals units will within the near

⁹¹ AWM 52 8/3/7, 15 May. These can rightly be seen as the precursor to the jungle assault, stalker and scout courses constructed by every unit training on the Atherton Tableland in 1943. They will be dealt with in detail in chapter six.

⁹² Givney, *The First at War* (ed), p. 235.

⁹³ AWM 52 8/3/2, 2 May.

⁹⁴ Givney, *The First at War* (ed), p. 235.

⁹⁵ Barter, *Far Above Battle*, p. 168. This excerpt is from a diary entry by J. Smithers, 14-20 July 1942.

future be using carrier pigeons as a means of communication'. Although the 2/1st would not require carrier pigeons in their operations in the South West Pacific islands, before the end of the war other units would.⁹⁶ This statement was presumably in response to the problems that the unit had encountered with its R/T and W/T sets.⁹⁷ A 2/2nd Battalion War Diary entry appears to contradict this finding, as it states that the 108 sets 'give good results when well maintained'.⁹⁸ Most units, however, found that the heat, humidity and thick jungle did make radio and wireless communications more unpredictable than in previous theatres.

The 2/1st Field Ambulance, attached to the 16th Brigade, also discovered that the transition to a jungle environment meant changes to its operating procedures. As a report written after their return to Australia noted, 'from a tactical point of view, most time was devoted to developing mobile sections' to better enable them to expedite the evacuation of casualties.⁹⁹ The answer to the problems posed by the difficult terrain was to develop more flexible or 'elastic' formations and procedures.¹⁰⁰ The recognition that the difficulties of transportation were likely to increase in the future was one of the reasons that the Field Ambulance was forced to change its methods. The engineers spent the majority of their time on Ceylon, constructing bridges and repairing roads, with very little time for training exercises in jungle terrain.¹⁰¹

With regard to the problems faced by artillery units, the 16th Brigade 'Glossary of Events' is singularly uninformative. Apart from the bland statement that 'the task of the artillery was naturally a restricted one owing to the nature of the country' it appears that the 2/1st Australian Field Regiment spent much of its time on the island digging defensive positions.¹⁰² As its guns and equipment did not arrive when the men did, perhaps this is understandable. When it was eventually able to carry out training, the focus was upon overcoming the difficulties of movement in a tropical

⁹⁶ See, for example, Stan & Les Briggs (eds) *Ike's Marines*, p. 180. Throughout most of its time on Bougainville, this unit was forced to rely on carrier pigeons as all other methods failed due to the unforgiving terrain and climate.

⁹⁷ Givney (ed), *The First at War*, p. 232. They had 'found that our 108 sets were ineffective'.

⁹⁸ AWM 52 8/3/2, 8-10 June 42.

⁹⁹ AWM 52 8/2/16, 'General Resume of Work Done by 2/1 Aust Fd Amb in Ceylon', 14 Nov 42, June 42 Appendices.

¹⁰⁰ Ibid.

¹⁰¹ See for example, AWM52, 5/5/10, HQ RAE 6 Aust Div War Diary, March to July 1942.

¹⁰² AWM 52 8/2/16, 'Artillery Training' in 'Glossary of Events', Appx E [undated].

environment. Exactly how it did this is difficult to ascertain from the available information. The 17th Brigade War Diaries makes little mention of artillery, except in the report by Colonel Cremor, which notes that ‘the use of, and co-operation with artillery was almost totally neglected’.¹⁰³ At the same time, the prevalence of separate and unconnected learning by the various units caused the 17th Brigade’s Commanding Officer, Brigadier Moten, to instigate changes.

It was in an attempt to collate and standardise the various unit’s experimentations over the first five weeks in Ceylon that saw the establishment of two training schools. The most important of these was the 17th Brigade ‘Jungle Warfare School’ under the ‘auspices of the Brigade Tactical School at Akuressa’.¹⁰⁴ As the 17th Brigade War Diary highlights, ‘a Bde weapon training school’ at Bussa, was formed at the same time as the Brigade Tactical School.¹⁰⁵ The role of this School was to provide NCOs with ‘weapon training, unarmed combat, drill, and...a study of elementary Japanese tactics, as they appeared to be from reports based on operations in Malaya and the N.E.I.’.¹⁰⁶ Once the Brigade Tactical School was fully operational the Weapon Training School would cease to teach theory of jungle warfare and concentrate on weapons and unarmed combat training.¹⁰⁷ On the other hand, the Brigade Tactical School was for officer training, and proposed to ‘cover tactical training, jungle warfare, and platoon and section leading’.¹⁰⁸ Initially it appeared that the school would only provide instruction in section and platoon training, but subsequently the purview expanded greatly.¹⁰⁹

The purpose of the Brigade Tactical School was made clear in a four-page document released on 1 May 1942. It was ‘to form a common basis throughout the Bde, on which to instruct troops in jungle tactics’.¹¹⁰ This was believed to be necessary as ‘recent coy exercises had shown coys enthusiastic but lacking in appreciation of the basic problems involved in jungle warfare’. Two different ‘schools’ or courses would

¹⁰³ AWM 52 8/2/17, 13 June 42.

¹⁰⁴ Moremon, ‘Most Deadly Jungle Fighters?’, p. 46.

¹⁰⁵ AWM 52 8/2/17, 29 April 42.

¹⁰⁶ Ibid.

¹⁰⁷ AWM 52 8/2/17, ‘Precis of Bde Comd’s Conference’, 1 May 1942, Apr 1942 Appx 6, p. 2.

¹⁰⁸ AWM 52 8/2/17, 29 April 42.

¹⁰⁹ AWM 52 8/2/17 ‘17 Aust Inf Bde Gp Tactical School’, 30 Apr 42.

¹¹⁰ AWM 52 8/2/17, ‘Précis of Bde Comd’s Conference’, 1 May 42, Apr 1942, Appx 6. All the quotes in this paragraph come from this document.

run at the centre, a junior and senior tactical school. The object of the junior school was 'to set a common standard for sec and Pl tng in jungle warfare'. While the junior officers of the Brigade were attending the three-day course at the School all tactical training at their parent battalions ceased. The paper further stated that 'when sufficient officers have attended Schools, unit Tactical Training to recommence, with units concentrating solely on section and Pl training'. The seven-day course at the Senior Tactical School was to 'teach Senior Officers Coy and Bn and att [attached] arms tactics in jungle warfare and beach defence' and also to highlight administrative duties.

Upon returning to their units those officers who had completed the training course at the Tactical School then applied those lessons to future training, as subsequent training instructions demonstrate.¹¹¹ Soon, all junior officers of the rifle companies had passed through the three-day course and on 30 May the 'Junior Wing of the Jungle Warfare School closed'.¹¹² As the levels of knowledge and expertise increased, so did the size and scope of the training exercises in which the two Brigades participated. This training was put to the test in a Brigade exercise carried out in late May. The results were not positive. The 2/5th War Diary records that:

At 2350 hrs the exercise was completed, 99 Indian Bde having routed 2/6 and 2/7 Bns by encircling movements. This they did by forcing a way through the jungle and attacking Coy posns from the rear. A point emphasised by this exercise is the possibility of troop movement through the jungle.¹¹³

A 2/5th Battalion officer, who acted as an observer to this exercise, stated that the Australians had 'been taught a sound lesson about the potential for rapid movement over difficult country, even at night under appalling conditions...Later in New Guinea this lesson was well and truly rammed home by the Japanese'.¹¹⁴

As one of the main lessons of the jungle warfare training was to highlight the ability of troops to move rapidly through jungle, the debacle came as a shock to the

¹¹¹ AWM 52 8/2/17, '17 Aust Inf Bde Gp Training Instruction No. 8 INF Training For Two Weeks Ending 31 May 1942', 14 May 42. The training instruction stated that 'training will commence with simple section exercises based upon lessons learnt at 17 Aust Bde Junior Tactical School.'

¹¹² AWM 52 8/3/7, 30 May.

¹¹³ AWM 52 8/3/5, 26 May. See also the comments in the 17 Bde War Diary, 26 May 1942.

¹¹⁴ Bennett, *Rough Infantry*, p. 139.

Australian units and demonstrated the need for continued training. In early and mid-June further Brigade level exercises were held. Unfortunately for the 17th Brigade, the results of Exercise TOC, held in early June, were similar to that of the exercise against the Indian 99 Brigade in late May. Lieutenant-Colonel Cremor, the chief instructor at the Brigade Tactical School, scathingly attacked this poor showing.¹¹⁵ He identified problems with leadership, control, initiative and inter-arms co-operation. With the units involved having had time to go over their mistakes from the previous exercise and perform to a higher standard, Cremor's anger is understandable. Interestingly, 'the Senior Offrs and a few Junior Offrs seemed surprised to imagine that anyone could regard them and their tps as not being 100% efficient.'¹¹⁶ These difficulties suggest that, notwithstanding the lessons they had received at the Jungle Warfare School, even combat-experienced units were finding it difficult to adjust ingrained doctrine and training to meet the new paradigm of jungle warfare.

In spite of the continuing problems highlighted in exercises, and the fact that the lessons learnt were primarily taken from the Malayan Campaign and therefore largely irrelevant to the forthcoming battles, it is beyond question that the four months spent on Ceylon were valuable to the 16th and 17th Brigades. Virtually every War Diary, at Brigade and Battalion level, as well as personal accounts, argue that the lessons learnt were to help the Australian troops when they ventured into the jungles of New Guinea and the islands.¹¹⁷ For example, George Tarlington, who served with the 16th Brigade on Ceylon and New Guinea, believed that the jungle training they received 'was to stand them in good stead in the New Guinea jungles later on in the year'.¹¹⁸ Similarly, the 2/6th Battalion's diarist stated that 'I consider that the training received by all ranks will be of great benefit in the future'.¹¹⁹ One of the final entries in the 16th Brigade War Diary of its time in Ceylon noted that the 'many recces and exercise experience in jungle warfare provided valuable experience'.¹²⁰

¹¹⁵ AWM 52 8/2/17, 11-13 June 42. Lieut-Col Cremor wrote several entries that are particularly critical of the performances of many officers, in all the battalions.

¹¹⁶ AWM 52 8/2/17, 13 June.

¹¹⁷ See for example, AWM 52 8/3/1, 'Report on G (R) Training 7 June – 6 July 42', 11 July 1942, June/July Appendices.

¹¹⁸ George Tarlington, *Shifting Sands and Savage Jungle*, Loftus, NSW: Australian Military History Publications, 1994, p. 56.

¹¹⁹ AWM 52 8/3/6, 1-7 July 1942.

¹²⁰ AWM 52 8/2/16, 6 July 1942.

An ancillary benefit of the jungle warfare training, and one that, from this distance is hard to quantify, was the value of the information passed back to Australia from the units in Ceylon. A feature of the 16th Brigade War Diary, in particular, is the number of reports and memoranda transmitted to Australia during the unit's time on the island.¹²¹ Copies of the Brigade and Battalion War Diaries were, of course, sent to Australia, and the appropriate officers would have been able to glean much information from those, but a more encompassing attempt at increasing the body of knowledge on jungle warfare was taking place. Although it is standard operational procedure for units to pass on any information that they believe will be of value to higher command, this usually occurs when units are on operations, and is not as rigorously followed during training.¹²² The sheer number of reports and papers, on all aspects of the jungle warfare training they were engaged in, demonstrates that the two Brigades were not merely preparing themselves for the challenges ahead. They believed that their time on Ceylon could be of use to units in Australia, who had not had the benefit of a tropical environment in which to train. Admittedly, with the dearth of knowledge of jungle warfare, any information, even that based on training, would presumably have been requested by LHQ in Melbourne. Interestingly, 17th Brigade does not appear to have followed the same system, as no equivalent reports are found in the War Diaries of the Brigade or its battalions.

The lessons continued on the voyage home, with lectures and lessons being delivered to several units. On 20 July the 2/5th War Dairy recorded that a Junior Officers Course on the 'Campaign in Malaya' took place. This was followed on 1 August by another course on board ship on the 'Organisation of Japanese Army', demonstrating that learning never ceased.¹²³ The concentration upon the Malayan experience continued unabated in mid-1942, but in the months to come, the fighting in New Guinea would supplant these lessons and they would be largely forgotten. Notwithstanding this, the 16th Brigade, soon to see action on the Kokoda Track, would later record the benefits

¹²¹ Over the course of their deployment in Ceylon, 16th Brigade sent back monthly four-page reports entitled 'Information for Australia' which covered all aspects of their training, from tactics employed, to weapons and equipment used, and medical and hygiene issues. Also sent back regularly were reports on various tests and experiments carried out, for example, on the use of mortars in jungle warfare, or the usefulness of bicycles to the units.

¹²² AWM 52 8/2/16, '16 Aust Inf Bde Operational Standing Orders', Appx R, Jan-Mar 42. Under the section on Training it is stated that 'on the 1st of each month units will submit a report embodying any tactical and tng lessons learnt as a result of operations during the month', p. 13.

¹²³ AWM 52 8/3/5, 20 July and 1 August 1942. [On ship]

of their time on Ceylon.¹²⁴ For the 17th Brigade it would be several more months before they fully utilised their training, when they joined Kanga Force holding back the Japanese at Wau.

By any measure, the time that the 16th and 17th Brigades spent on Ceylon was valuable. Their training period, while not preparing them for actual combat against the Japanese in New Guinea, laid the basic groundwork for further learning. From the first hesitant experiments carried out by individual units in April, through to the Brigade level exercises in June, much had been accomplished. The troops and their commanders had experienced some of the difficulties that they were soon to encounter in Papua and New Guinea. Mistakes had been made and irrelevant tactics and methods practised, but in a country where the enemy was not able to punish those mistakes on the battlefield. The two Brigades had had time to learn and practice new drills and experiment with tactics in an environment that was similar to New Guinea.¹²⁵ They had utilised the few training pamphlets available to them and modified the information therein to suit the new terrain and climate in which they were soon to operate. The 17th Brigade Jungle Warfare School at Akuressa can rightly be seen as the precursor to the highly successful Jungle Warfare Training Centre in Canungra, Queensland. Although there were significant differences between Ceylon and New Guinea, most notably that Ceylon was 'a civilised country, and we could always come back to our comfortable billets', the problems of the heat, humidity, torrential rain and the jungle were similar.¹²⁶ As Lieutenant Leary, an officer in the 2/1st Battalion stated of his unit's time in Ceylon 'much has been learnt and should prove of outstanding value in future operations where close country like Ceylon may be encountered'.¹²⁷

¹²⁴ AWM 54 577/7/29, Pt 15, 'Report on Operations in New Guinea, 16 Aust Inf Bde', 28 Dec 1942.

¹²⁵ See, for example, the comments in AWM 52 8/2/16, 'Glossary of Events', Appx E. It argued that 'one benefit was the opportunity given to all troops to experience types of country likely to be encountered and this fact alone proved of untold value'.

¹²⁶ Bennett, *Rough Infantry*, p. 145.

¹²⁷ AWM 52 8/3/1, 'Report on G (R) Training 7 June 42-6 July 42' 11 July 42 in 2/1 Bn War Diary, June/July 1942. For similar comments see AWM52, 8/3/17, 13 July 1942, 'We leave Ceylon with the sincere hope that the lessons learned and experience gained on this jungle island will be invaluable in days to come when we enter the tropics once more to meet the wily Jap'.

Chapter 4: ‘Physical fitness is vital’: Training in Australia, 1942

The five months between the return of the first AIF units from the Middle East – and the despatch of the first of them to Papua in August 1942 – were arguably the most critical in Australian military history. Ultimately, strategic events outside Australian control – primarily the May and June 1942 naval battles of the Coral Sea and Midway – would determine the future of the nation. While these momentous battles were taking place, however, the Australian military was working frantically to prepare defences to meet the expected Japanese invasion. It is against this background that an evaluation of the types of training undertaken by the Australian Army must be judged. The conflicting needs of defence of the mainland and learning how to operate in the jungle caused great difficulty. As a consequence, this period would contribute little towards the development of Australian jungle warfare training ideas or doctrine. The short training period would, however, illuminate two points. Firstly – as discussed in chapter one – the paucity of knowledge of the islands to Australia’s near north; and secondly, as a corollary to that ignorance, little information or understanding on how to prepare for combat in that environment.

Such ignorance would be very costly for the soldiers of the 18th and 21st Brigades of the 7th Division, the first AIF soldiers returning from the Middle East to see action against the Japanese. In examining this relatively brief interregnum, one of the few lessons that can be drawn, was one that was already firmly believed in by the Army. This was the benefit of hard physical training in creating soldiers better able to handle the extremely harsh terrain and climatic conditions they would soon meet. The first real lessons and contributions to creating an Australian jungle warfare doctrine would not occur in the countryside near Caloundra or even the forests of the Blackall Ranges, but rather on the battlefields of Kokoda, Milne Bay and the Beachheads of Buna, Gona and Sanananda.

As with the 16th and 17th Brigades who were soon to arrive in Ceylon, the time spent on troopships returning to Australia was not free of work. For the NCOs and other ranks, cramped onboard conditions restricted training to daily PT, games and small

arms drills.¹ It is clear from the War Diary that Brigadier Wootten's 18th Brigade was actively attempting to develop methods of operating in the changed circumstances of jungle or tropical terrain. A Commanders' conference attended by Commanding Officers and their Adjutants, as well as those of the supporting arms, compiled a six-page report.² Topics addressed included how best to use artillery in the jungle, problems associated with the evacuation of casualties, and occupying night defensive positions. At this stage the units had not received any of Brigadier Stewart or General Bennett's reports and appear to have developed solutions based upon assumptions of what jungle warfare would entail. Notwithstanding the lack of tactical or doctrinal material available to them, the suggestions, particularly with regard to the necessity of decentralisation of artillery units, are very prescient.³ A feature of the jungle campaigns would be the employment of artillery sub-units, frequently four-gun troops, and rarely of a full regiment.

For some of those trying to develop solutions to the as yet unknown problems of jungle warfare, events on the voyage home would be more frustrating than helpful. On the day of departure from the Middle East, the commanders of the 21st Brigade had been handed secret documents and maps pertaining to their presumed next area of operations, Java.⁴ More than three weeks later the closest they had come to Java was when two recently evacuated RAF officers briefed the Brigade Commander and CRA on 'Japanese tactics and the general situation (in Java)'.⁵ To the frustration of the Brigadier, instead of joining Colonel Blackburn and his forces on Java the 21st Brigade would arrive with the rest of the Division in Australia in early March. For the historian of the 2/10th Battalion, the decision to return to Australia was a blessing in disguise. Allchin stated that:

¹ AWM 52, 8/2/18, 15 February 1942, 'Owing to the limited space tng has been restricted but particular attention is being paid to the hardening of tps by organised games and physical tng'.

² AWM 52, 8/2/18, 18 February 1942, 'Comds Discussion: Decentralisation of Arty and Jungle Warfare', 'Problems of Treatment and Evacuation of Casualties'.

³ AWM52, 8/2/18, 'Decentralisation of Arty and Jungle Warfare', p. 1: 'Decentralisation to sections or to single guns will be advisable when targets are likely to be such as can be engaged quickly and effectively by sections or single guns in close support roles'. [The document later argued that] 'Fd regts are NOT equipped to decentralise beyond tps and any such decentralisation must therefore be improvised'.

⁴ AWM52, 8/2/21, 30 January.

⁵ AWM52, 8/2/21, 26 February.

There was little indeed about jungle fighting in any of the text-books, and that little was quite indefinite...in the light of later experience when the battalion became highly expert in jungle warfare, it may be as well that most of the ideas advanced aboard HMT Nieuw Amsterdam had been forgotten.⁶

Approximately a week before the convoy arrived in Australia, Headquarters 7th Division released a memorandum that would inform much of the forthcoming training.⁷ Based upon the lessons of Brigadier Stewart, this four-page training memorandum explicitly directed officers to utilise ‘Operations In Malaya: Dec 41 – Feb 42’ which was issued by 1st Australian Corps on 17 February.⁸ As was shown in chapter two, ‘Operations in Malaya’ was drawn up following several discussions with Brigadier Stewart, beginning the day after the fall of Singapore.⁹ Although Stewart’s main recommendation, that training in the jungle was the only way to properly prepare for jungle warfare, was retained, the emphasis in ‘Warfare In Thick Country’ is actually more closely aligned with General Bennett’s reports. Consequently the memo is more relevant to countering a Japanese invasion of northern Australia, than useful for preparing units for combat in Papua or New Guinea.¹⁰ With the likelihood of Japanese attack at this time very high, this is not unexpected. What this emphasis would mean, however, is that for much of the period before they were despatched to Papua, 6th and 7th Divisions would undertake training that was not directly relevant to the forthcoming battles.

The objectives of all the training instructions and memorandums issued at this time were very clear: the obtaining of ‘the highest possible standard of PHYSICAL FITNESS’ and the development of ‘A REAL HATRED OF THE JAP’.¹¹ To this end the bane of every infantryman, the route march, would form a major component of training. During the month it was stationed near Adelaide, the 2/14th Battalion ‘spent [the period] in hardening and regaining physical fitness after the long cramped sea

⁶ Frank Allchin, *Purple and Blue: The History of the 2/10th Battalion AIF (The Adelaide Rifles) 1939-1945*, Adelaide: The Griffen Press, 1958, p. 231.

⁷ AWM52, 1/5/14, ‘Warfare In Thick Country’, 7 Australian Division General Staff Branch (Hereafter 7 Aust Div GS Branch), 2 March 1942, Appx T. 1.

⁸ AWM 52, 1/5/14, p. 1.

⁹ This document, and sub-sections of it, appear in numerous unit and headquarters documents. See for example, AWM54, 923/2/27, ‘Notes on war experience against the Japanese – 1942’. This is actually a copy of Brigadier Paris’s four-page report discussing the experiences of his Brigade in Malaya, which was supplied to the Australian Army by Brigadier Stewart in February 1942.

¹⁰ Ibid. See especially pages two and three.

¹¹ AWM52, 8/2/18, ‘Tng Instn No. 23’, Appx A March War Diary; AWM52, 8/2/21 ‘Training Instruction No. 28’, 26 March 1942, p. 1. [Capitalisation in original.]

voyage'.¹² Other men believed that the rudimentary river crossing exercises at Sandy Creek in South Australia were the beginning of lessons for the tropics.¹³ The majority of training, however, was firmly focused upon physical hardening and strengthening the troops, combined with exercises designed to combat a Japanese invasion, using the lessons of the Malayan campaign.¹⁴

This emphasis on the lessons of Malaya that were clearly set out in 'Warfare in Thick Country' naturally informed all lower echelon training programmes. As a primary responsibility of any military force is to protect its Line of Communications, the statement that 'the ROAD is the only tactical feature that counts' would not have been revolutionary to any unit commanders.¹⁵ What it did mean is that the units which would soon be fighting the Japanese at Kokoda and Milne Bay were diligently working to perfect tactics that would be of little value to them. This concentration upon the lessons of Malaya, the Philippines and the Netherlands East Indies was further reinforced by a series of intelligence summaries issued throughout the period.¹⁶ These summaries appeared to confirm the understanding of Bennett with regard to how best to defeat the Japanese. Although the types of training the units undertook once in Queensland did expand to include basic jungle warfare tactics, they continued to devote an inordinate amount of time to irrelevant ideas.

Notwithstanding the fact that all units, infantry or otherwise, were preparing to repel a Japanese invasion, there were differences in training ideas and emphasis. A central reason for this was, as Welburn has stated, 'before the establishment of...Canungra, each brigade and division was responsible for training its soldiers in operational procedures'.¹⁷ 1st Australian Corps issued directives and training memoranda to 7 Australian Division Headquarters which then issued them to units under its command.

¹² W. B. Russell, *The Second Fourteenth Battalion: A History of an Australian Infantry Battalion in the Second World War*, Sydney: Angus & Robertson, 1948, p. 107. See also AWM52, 8/3/14, 'Syllabus of Tng – Rifle Coys – Week Ending 2 May 42', that lists a route march on most training days.

¹³ Alex Graeme-Evans, *Of Storms and Rainbows: The Story of the men of the 2/12th Battalion AIF, Volume Two*, Hobart: 12th Battalion Association, 1991, p. 7.

¹⁴ See, for example AWM52, 8/3/25, 'Report on Tactical Exercise with Carriers', April 1942 and AWM52, 8/2/18, 'Notes on Defence Against Tank Attack', 29 March 1942.

¹⁵ AWM52, 1/5/14, p. 2.

¹⁶ AWM52, 8/2/18, 'Intelligence Summary No 118' 27 April 1942 and 'Intelligence Summary No 119', 4 May 1942. These summaries contained information on weapons, equipment and tactics, as well as accounts by allied soldiers who had fought the Japanese.

¹⁷ M.C.J. Welburn, *The Development of Australian Army Doctrine 1945-64*, Canberra: Australian National University (Research School of Pacific and Asian Studies), 1994, p. 7.

All units knew from the directives they received on which areas higher command wanted them to concentrate, but the implementation of those directives was left to each battalion or regiment. Although differences within battalions or regiments were less noticeable, individual company or platoon commanders were reasonably free to determine what training areas were highlighted. This led to a lack of 'standardisation of techniques or training within the army'.¹⁸ What each unit learnt also depended to some extent on how effective the officers appointed as trainers were and what areas they believed required emphasis.

Two incidents in April demonstrate the problems inherent in such a devolved system of training. A tactical exercise in early April 1942 suggested that the 2/14th Battalion was trying to ready its troops for operations in the tropics, while its sister battalion, the 2/16th was leaving this aspect of training until directed to do so. The 2/14th 'Company Exercise' had as its stated objective to 'Exercise all ranks in fighting in close country (special thought to be given to lessons brought out in Jungle Fighting)'.¹⁹ Only days before this a 2/16th Battalion training instruction stipulated that:

Whilst jungle warfare is to be studied and discussed it is not to form part of this tng period. It is anticipated that at some later period the opportunity for practice will be made available.²⁰

As both units were training in the rolling farmland of the Echunga region southeast of Adelaide, it could be argued that the 2/16th was more realistic in delaying jungle warfare training until it found itself in terrain that more closely resembled jungle. Soon after these exercises, the 7th Division began to move north where they spent approximately a month training in the Glen Innes and Tenterfield areas of northern New South Wales.

This training period clearly demonstrated several things: firstly, that countering a Japanese invasion of Australia was the primary object of that training; secondly, that the lessons of Malaya, which dovetailed most closely with the perceived invasion threat, continued to be given priority; and finally, that the Australian Army's idea of

¹⁸ Ibid, p.7.

¹⁹ AWM52, 8/3/14, 'Company Tactical Exercise: The Deliberate Attack'. April War Diary.

²⁰ AWM52, 8/3/16, '2/16 Aust Inf Bn Tng Instn No. 1', 29 March 1942.

‘jungle’ was far removed from the reality of Kokoda or Buna. In the weeks before it entrained for Kilcoy, Queensland, the 2/12th Battalion War Diary lists the training it was undertaking as ‘jungle warfare’ and ‘jungle trg’ further highlighting the separation between current belief and forthcoming reality.²¹ After experiencing the conditions of Milne Bay, Buna and Sanananda, none of the battalion members would ever again mistake the terrain of northern NSW for jungle. In fact Spencer argued that when the 2/12th’s sister battalion, the 2/9th, moved to Queensland for training in the Jimna Ranges, it ‘commenced what the army thought was jungle training. Both they and we were in for a huge shock’.²²

The 2/27th Battalion war diary for much of late April and early May included training exercises with artillery units, Bren gun carriers and reduced scales of motor transport.²³ These exercises highlight two issues: one beyond the control of the Army and mentioned earlier, that is, preparing for combat in Australia that never eventuated; and secondly – the unsatisfactory intelligence interchange between Papua and Australia. Why no one appeared to have obtained information on the terrain and weather conditions, whether in the Owen Stanley Ranges or at Milne Bay, is hard to understand. To have done so would have prevented numerous problems and several wasteful incidents. Most notable was the despatch of Bren gun carriers and non-four wheel drive vehicles that were wholly inadequate in the tropics. Once they arrived at Milne Bay with their complement of Bren gun carriers and trucks the 2/12th Battalion tried vainly to use them for the first day. As Graeme-Evans has noted:

The irony of it all was that once both sets of vehicles [carriers and trucks] were parked, they were never effectively used again to any great degree in the course of the first New Guinea campaign!²⁴

If the suggestion that ‘skid [snow] chains’ needed to be provided for vehicles operating in jungle conditions had been acted upon when it was first brought up in June, some of these problems may have been alleviated.²⁵ The inability of

²¹ AWM52, 8/3/12, War Diary entries for 19 and 20 May 1942.

²² Bill Spencer, *In the Footsteps of Ghosts: With the 2/9th Battalion in the African desert and the jungles of the Pacific*, St. Leonards, NSW: Allen & Unwin, 1999, p. 88.

²³ AWM52, 8/3/27, ‘Report on Bn Exercise – Glen Innes – 5 May 1942’.

²⁴ Graeme-Evans, *Of Storms and Rainbows*, p. 32.

²⁵ AWM52, 8/2/18, 18 June 1942. In this letter from 18th Bde HQ to 7 Div HQ, the recent experiences on a TEWT included the suggestion that chains be provided for the muddy conditions expected.

commanders in Australia to educate themselves on the terrain and conditions in Papua and New Guinea would cause countless problems in the coming months.²⁶

‘Long, hard route marches’: The 7th Division moves to Queensland

Before this could become an issue, however, the 7th Division continued its gradual move north, crossing the border to training areas near Yandina, Kilcoy and Caloundra in southern Queensland. Training in a region with ‘real’ jungle appeared to be the next step in the evolution of an Australian jungle warfare doctrine. Despite the best intentions of unit commanders to devote as much time as possible to training in jungle conditions, factors outside their control continued to foil them. As the 16th and 17th Brigades were finding at the same time in Ceylon, the pressing need for defensive works and engineering tasks in the area continuously disrupted training programmes.²⁷ The unit historian of the 2/27th Battalion stated that, ‘unfortunately much valuable training time was lost by the battalion being required to supply working parties on road-making tasks in the Blackall Ranges’.²⁸ Why the most experienced, well-trained and combat-hardened soldiers currently in Australia were being used as labourers calls into question the priorities of higher authority. Another drain on manpower and a distraction from training involved units having to provide companies on a rotational basis for ‘coast-watching’ duties.²⁹ To some extent this last duty was of value to the unit – and not merely to the authorities who ordered it – as the men in the listening positions were able to practice movement through coastal jungle terrain and stalking exercises.³⁰

²⁶ Numerous works have dealt with this aspect of Australian Second World War history and the topic will not be directly addressed, except where it affects the development of Australian Army jungle warfare doctrine and training. Books which discuss the controversies between Blamey, MacArthur, Allen, Rowell and Potts include, Peter Brune, *Those Ragged Bloody Heroes*, Sydney: Allen & Unwin, 1991; Braga, *Kokoda Commander*; Ham, *Kokoda*; Hetherington, *Blamey*; Horner, *Blamey* and McAulay, *Blood and Iron*.

²⁷ See, for example, Russell, *The Second Fourteenth*, p. 110 and AWM52, 8/3/16 ‘Summary’ for July 42 and AWM52, 8/3/27, July 1942.

²⁸ John Burns, *The Brown and Blue Diamond at War: The Story of the 2/27th Battalion AIF*, Adelaide: 2/27th Battalion Ex-Servicemen’s Association, 1960, p. 105.

²⁹ See for example, AWM52, 8/3/14, ‘Outline Plan – Coast Watching’ 29 May 1942. This memo contains a list of the roles of the unit in watching for shipping and aircraft movements along their allocated section of the coast.

³⁰ Some men however, did not view it as such. DVA, AAWFA, Robert Iskov, 2/14th Battalion, Archive No. 1999, transcript, time: 5.06.00.00 ‘We did a bit of guard duty down on the beach in case the Japanese attempted to land...but it was a relief from the general training’.

By early June all the 7th Division units had moved to Queensland and began to devote as much time as possible to training. With the issue of General Bennett's *ATM No. 10* in June, combined with 'First Army Trg Instn No. 3: Jungle Warfare' in late May, the basis for future training was set.³¹ Some units had also received US Army Colonel Brink's *Tactical Methods* but they appear to be in the minority.³² The various *Army Training Memoranda*, and particularly Bennett's, once it was issued, were more widely used. The unit history of the 2/14th Battalion mentioned that the report by Bennett was 'studied exhaustively' while 2/27th goes into greater detail.³³ Burns explained that:

A careful study had been made by all ranks of all available information on the fighting in Malaya. A training pamphlet based on the experiences of the 8th Division had been studied and practised and a most useful and instructive report of the operations of a battalion of the Argyll and Sutherland Highlanders in Malaya had also been available.³⁴

The majority of large-scale exercises throughout June and July would continue to focus on perfecting the lessons of Malaya: 'protection [of motor transport convoys] on the move', 'defence by mobile colns [columns]' and the destruction of 'rd-blocking parties which may have infiltrated to our rear'.³⁵ As General Rowell would later write, 'the training was solid and realistic for our task of operating in relatively open country'.³⁶ Unfortunately, as Rowell then continued, 'what was lacking, of course, was work in the jungle conditions that were to follow'.³⁷ To the best of their ability the units exercised in the thickly forested Blackall Mountain ranges, the areas around Hazeldean and Jimna and along the coast near Coolumb and Noosa.

Although much of the training undertaken by the 7th Division would prove irrelevant to the Papuan and New Guinea campaigns, some useful drills and practices were

³¹ The majority of First Army Trg Instn No. 3 is composed of the aforementioned reports by Brigadiers Stewart, Paris and Berryman. See, AWM54, 937/3/18 'First Army Trg Instn Nos 1 & 3: Jungle Warfare 1942'.

³² AWM52, 8/2/25, 'Tactical Exercise with Troops No. 5' Appx H, 29 June 1942. See, under 'Lessons To Be Taught' the manuals to be used, namely *Infantry Training 1937* and *Tactical Methods*.

³³ Russell, *The Second Fourteenth Battalion*, p. 112.

³⁴ Burns, *The Brown and Blue Diamond at War*, p. 105. The 'Argyll and Sutherland Highlanders' report is, of course, Brigadier Stewart's report taken from his February interviews with General Allen and Brigadier Berryman.

³⁵ AWM52, 8/3/9, 1 June Appx B '2/9 Aust Inf Bn Exercise'; AWM52, 1/5/14, 'Murgon TEWT' 13 June 1942 and '7 Aust Div TEWT' Mon 6 Jul 42'.

³⁶ Rowell, *Full Circle*, p. 110.

³⁷ *Ibid.*

being developed.³⁸ As with the two 6th Division brigades on Ceylon, during mid-May the 2/27th Battalion was training its soldiers in firing the 'Bren and TSMG from [the] hip' describing it as 'jungle snaphooting'.³⁹ At the same time the 2/14th was practising similar techniques.⁴⁰ For the majority of units, however, this was the exception, and most firing range practices were at the proscribed distances of between 100 and 400 yards. Standard small arms drills from the relevant Military Training Pamphlets and the *Infantry Training* manual of 1937 dominated training syllabi throughout this period.⁴¹ This supports the view, apparently held by many commanders, that the experienced and battle hardened soldiers would not need to greatly modify their training to defeat the Japanese.⁴² Nevertheless, it is also apparent that the highest levels of the army were concerned about the lack of knowledge of what was required for jungle warfare. In late May 1942, 1st Australian Corps sent a signal 'asking 7 Aust Div to forward views and suggestions for modified war eqpt tables etc suitable for tropical warfare'.⁴³ The learning process was clearly fluid and multi-directional not simply from Corps down to Division and thence onwards to lower units.

Also similar to the 16th and 17th Brigades on Ceylon, much experimentation was taking place as the units in Southern Queensland attempted to solve the unknown problems of jungle warfare. The 25th Brigade memo, 'Experiments in Jungle Warfare', addressed such topics as uniforms, gaiters, horses and the attachment of Bren guns to trees.⁴⁴ To further this process at least one of the 25th Brigade's Battalions, the 2/25th, appointed an officer to be 'OC Jungle Warfare Experiments'.⁴⁵ During patrol exercises in the forests and swamps of the region a constant series of experiments were being conducted, principally concerning the type and amount of

³⁸ Truly irrelevant would be the suggestion, based on 8th Divisions experiences of Malaya, and ignoring the experiments of the 6th on Ceylon, that bicycles were needed. See, for example, AWM52, 8/2/18, '7 Aust Div Tng Notes', 5 July 1942, p. 3.

³⁹ AWM52, 8/3/27, 18 May 1942.

⁴⁰ AWM52, 8/3/14, 4 May 1942.

⁴¹ See for example AWM52, 8/3/10, 'Tactical Exercise with Tps to be Held on Friday, 15 May, 42' and AWM52, 8/2/18, Appx H 'Tactical Exercise with Troops No. 5' 29 June 1942.

⁴² AWM52, 1/5/14, 'The Will to Win', 13 May 1942 and AWM52, 1/5/14, 'Warfare in Thick Country', 2 March 1942.

⁴³ AWM52, 1/5/14, 'Appx B1', 28 May 1942.

⁴⁴ AWM52, 8/2/25, 'Experiments in Jungle Warfare' 21 June 1942.

⁴⁵ AWM52, 8/3/25, 22 June 1942.

equipment and ammunition carried by the men, and the most appropriate rations.⁴⁶ Several patrol reports stated that the standard rations of bully beef and biscuits should be replaced, or at the very least modified, with the introduction of rice, which was lighter to carry and provided more energy.⁴⁷ These reports were then collated and forwarded to Brigade HQ and on to Division. As with many of the suggestions made during this training period, however, this one was not enacted. Both the 18th and 21st Brigades would carry the same rations in Papua as they had in Syria. When the 25th Brigade joined its sister units in Papua in late September 1942, it too would suggest the issue of rice, but to no avail.⁴⁸

These patrols were deemed to be some of the most important training conducted during this period as they provided insights for the troops, and their commanders, into the problems they were likely to face in Papua. The unit histories almost uniformly agree with the statement by the historian of the 2/10th Battalion that, 'here [Kilcoy and environs] it was possible at last to commence some true jungle training; training that was to prove invaluable within a matter of weeks'.⁴⁹ Some of the men themselves appeared to be less certain of its value, as Mason makes clear:

Yes. [The training in Australia was] Alright for the desert. Alright for Syria. Alright for Palestine. Alright for anywhere, but definitely not on the Owen Stanley Ranges.⁵⁰

Others were even more adamant that training in Southern Queensland was not an adequate substitute for the real thing. As Spencer would later write:

Queensland could not prepare us for the ravages of malaria, hookworm and scrub typhus; it could not prepare us for the humid, clinging heat and torrential tropical downpours; it could not teach us that our equipment and weapons (so applicable in the desert) were heavy and energy-sapping in the jungle...I don't think it dawned on us that we had been fighting a European-style war, with European-style equipment and tactics against European foes,

⁴⁶ See AWM52, 8/3/14, 'Report on five day march 19-24 May Lt Pearce'.

⁴⁷ AWM52, 8/2/21, 'Report on Patrol Endurance Report' 5/21 May 42 Appx A.

⁴⁸ AWM52, 8/2/25, 'Q Notes by Capt E. S. Owens – SQ 25 Aust Inf Bde' From 25 Aug to 26 Sep 42, p. 2 'It is considered that the addition of rice to the tps ration would be an excellent idea'.

⁴⁹ Allchin, *Purple and Blue*, p. 238. See also Burns, *The Brown and Blue Diamond at War*, p. 105 and Malcolm Uren, *A Thousand Men At War: The Story of the 2/16th Battalion AIF*, Melbourne: William Heinemann Ltd, 1959, p. 114.

⁵⁰ DVA, AAWFA, Lindsay Mason, 2/14th Battalion, transcript, tape 3.11.00.00. See also AWM, KMSA, Charles Sims, 2/27th Bn, Archive No. S789, Tape 2, Side A, 5-10 minutes, 'We did go into a bit of rainforest for a while but that wasn't any sort of training, it was just to say well this is the sort of thing if we go from here further north we possibly would have to expect this type of terrain'; and DVA, AAWFA, John Kirkmoe, 2/10th Battalion, Archive No. 1814, time: 1.06.30.00, 'We had training in amongst trees and all that sort of thing, but it could in no way be described as jungle'. Numerous other statements such as this can be found in similar DVA and AWM accounts.

and that we were about to embark on an Asian war, where the conditions, weapons and tactics and the enemy were unique.⁵¹

If the men were not convinced that the training they were undertaking was of much value, their officers were even more concerned:

We were well aware of enemy activity up in the islands. We couldn't understand why we were being held back. We weren't being given the chance to adjust to real jungle conditions in New Guinea.⁵²

It is clear that soon before their departure for Papua, more senior officers were also becoming concerned with the level of ability attained by their units in the new terrain.

After a large-scale jungle warfare training exercise in late-June, a scathing report by the 21st Brigade Major highlighted numerous problems. They ranged from the employment of artillery and cavalry units, communications, command and control, through to tactical appreciation and leadership.⁵³ Some of these would not be immediately relevant as they specifically related to the type of combat envisaged by Bennett's *ATM No. 10*; that is, fighting a motorised infantry column along a road surrounded by thick forest.⁵⁴ Other lessons and recommendations, however, foreshadowed problems that would continue to be issues throughout the Australian Army's service in the islands of the southwest Pacific. The most important problems identified revolved around command, control and communications.⁵⁵

In the time available before the 7th Division departed for Papua, these issues would not be solved and would result in numerous problems for all units. Radio communications, particularly with the army issue Mk. 108 set were a regular problem.⁵⁶ In Papua it would only become worse when torrential rain was added to thick jungle and mountainous terrain. As the 108 set had been identified as a

⁵¹ Spencer, *In the Footsteps of Ghosts*, pp. 88-9. For similar views see DVA, AAWFA, Kirkmoe, 2/10th Battalion, transcript, tape 5.08.00.00, 'I don't know whether the powers that be thought it would be some semblance of jungle training'.

⁵² Edgar, *Warrior Of Kokoda*, p. 117. The quote is from Captain Harry Katekar, 2/27th Battalion, 21st Brigade.

⁵³ AWM52, 8/2/21, 'Appx 5' and 'Preliminary Report By Director – 21 Aust Inf Bde Test Exercise 24-30 Jun 42'.

⁵⁴ This type of combat would become relevant in several later jungle campaigns, particularly the 6th Division advance from Aitape to Wewak [1944-45] and the 5th Division drive along the Buin Road on Bougainville [1945].

⁵⁵ AWM52, 8/2/21, 'Preliminary Report By Director', see especially pages one and four.

⁵⁶ Ibid, p. 1. 'At all times comms were a major problem...the 108 set was found quite unreliable'.

problem in the mountains of Syria, during the 7th Divisions campaign a year earlier, it is surprising that no suitable replacement had been forthcoming.⁵⁷ At least one unit became so frustrated with the standard of wireless equipment issued to them that, 'commercial wireless sets [were] purchased from Battalion welfare funds [and] issued to companies'.⁵⁸ The 108 Mk II was an improvement on the Mk I, but was still not adequate for the conditions in Papua. As line of sight would generally be impossible in the forthcoming operations, the use of the normal fallback options, such as signal flags or heliograph, which had been used in Syria, would be of little use.⁵⁹ The introduction of US-manufactured 'walkie-talkies' for the 7th and 9th Division campaigns of 1943-44 would go some way towards alleviating the communications problems.

Of similar importance were the problems related to tactical control and the employment of the various supporting arms. None of them would be adequately solved prior to embarkation, and all of these would have ramifications during the forthcoming campaigns. As the Brigade Major's report states:

The problem of control proved to be one that caused considerable worry from the CO down to the sec comd. Leaving out the bn comd, the question arises as to what constitutes control in this type of warfare...This subject of control in close country is one that will have to be tackled much further.⁶⁰

Company commanders became frustrated with the difficulty of observing and therefore directing their platoons during the exercise, and platoon commanders experienced similar problems with regard to their sections. The report did suggest one change that would alter how units had hitherto been commanded during the war. It argued that 'one thing is certain, a coy comd cannot control his coy from the rear

⁵⁷ J. C. McAllester, *Men of the 2/14th Battalion*, Melbourne: 2/14th Battalion Association, 1990, p. 52: 'The 108 Mk I sets proved a dismal failure [In the mountains of Syria] though communications between the Command Group set and the wireless van was occasionally established. The bad operation of these sets contributed largely to the failures of communications experienced in this campaign'. In fact so frustrated was the 2/14th Battalion that when they captured a dump that contained Vichy French signals equipment they immediately pressed it into service. For similar views see also William Crooks, *The Footsoldiers: The Story of the 2/33rd Australian Infantry Battalion AIF in the War of 1939-45*, Brookvale, NSW: Printcraft Press, 1971, p. 78 and John Warby, *The 25 Pounders...From Egypt to Borneo: Campaigns in Syria, Kumusi River, Salamaua, Lae, Finschhafen and Balikpapan. The Story of the 2/6th Australian Field Regiment, RAA, AIF, 1940-1946*, Pymble, NSW: 2/6th Fd Regt Association, 1995, p. 115.

⁵⁸ McAllester, *Men of the 2/14th Battalion*, p. 57.

⁵⁹ Russell, *The Second Fourteenth Battalion*, p. 81.

⁶⁰ AWM52, 8/2/21, 'Preliminary Report by Director', p.4.

and must be well up fwd the whole time'.⁶¹ As Sholl has identified, the 25th Brigade – using information supplied by the 18th Brigade after their operations at Milne Bay – drew up a series of diagrams of formations that placed the company and battalion commanders much further forward than had been the case in the desert.⁶² Sholl also noted that this was not a new tactic, rather a reversion to pre-war tactical doctrine.⁶³ In an additional reversion to pre-war tactics, the 25th Brigade suggested a change to patrol formations 'for movement in close country when contact with the enemy is likely'.⁶⁴ This formation, which placed one section forward and kept two in the rear, otherwise known as 'one up, two back', was a logical reaction to operating in terrain in which contact could occur at any time, and from any direction.⁶⁵ It allowed a commander to manoeuvre the bulk of his forces to support the section – or platoon – that had initiated contact, and allowed for more covering fire if a withdrawal was necessary.

For many units of the 2nd AIF who had served in the Middle Eastern campaigns, however, these changes did require a readjustment to the tactics they had practised and to which they had become accustomed to using in combat. As discussed in chapter one, a minority of the 2nd AIF had pre-war militia experience. Even those who did were unlikely to have adequate knowledge of different patrol or assault formations, and the conditions or terrain in which they should be applied. Conversely some units had begun to adapt to the new problems posed by jungle conditions and suggest answers, as a 25th Brigade training instruction released in the same week makes clear. Among the points highlighted were that 'the CO must be well fwd to control the movement of fwd coys' and importantly, that 'action by tps when the enemy is contacted in close country must be immediate – it will all be close quarter work – shooting from the hip – bayonet'.⁶⁶ As discussed in chapter two, this second lesson had been identified by Lt-Col Stewart prior to the outbreak of the Pacific War

⁶¹ Ibid, p. 4.

⁶² Sholl, 'Points Noted and Lessons Learnt', p.82.

⁶³ Ibid, p. 83. This point will be addressed in greater detail in chapter 5.

⁶⁴ AWM52, 8/2/25, 'Tng Instn No. 19', 5 July 1942.

⁶⁵ Sholl, 'Points Noted and Lessons Learnt', p. 82-3.

⁶⁶ AWM52, 8/2/25, 'Tng Instn No. 16: Notes on Lessons From Tactical Exercise with Troops No. 4', 22 June 1942. See, also AWM54, 943/1/14 'Jungle Warfare as carried out by the 25th Aust Inf Bde 1942', which contains correspondence between the Brigade Commander, Brigadier Eather and the Divisional Commander, Maj-Gen Allen on the training and experiments that 25th Bde was undertaking in July 1942.

and would eventually lead to ‘battle drills’; automatic manoeuvres enacted upon contact by infantry units.⁶⁷ The Australians training in Malaya and Ceylon had also identified the necessity for instantaneous reactions due to the extremely close ranges found in the jungle.⁶⁸

This point highlights another issue that the Australian Army had not adequately addressed. On three separate occasions, over the course of 18 months, units independently developed training and weapons drills specific to jungle warfare conditions; this indicates a problem with information transmission between divisions, and more broadly across the army. The first time that the 22nd Brigade of the 8th Division, in early 1941, developed close quarter combat drills, this information – which was included in the copies of unit war diaries that were received by LHQ in Melbourne prior to 7 December 1941 – should have been collected by a central training agency.⁶⁹ If this had happened, the instant the 6th Division on Ceylon, and the 7th Division in Queensland had begun their training for jungle warfare, a training syllabus and list of lessons learnt would have been available. Much time and effort could have been avoided. As discussed earlier in this chapter, the devolution of training responsibility to divisions and down to unit level worked against the creation of a collective body of knowledge related to training matters, whether jungle warfare or otherwise. The wealth of reports, which appeared in early 1943 after the first Papuan Campaigns, would give greater impetus to efforts by the Directorate of Military Training to standardise across the Australian Army training methods, and approaches to jungle warfare learning.⁷⁰

‘A new type of warfare’: Can artillery be employed in the jungle?

The role and employment of the supporting arms in jungle warfare conditions also raised concerns. The ability to properly utilise the first of these, artillery, traditionally the most important means of support for the infantry, proved extremely challenging. That the use of field artillery in the jungle would be problematic was decided before the exercise began. One of the questions in the ‘General Notes’ issued prior to the

⁶⁷ Stewart, *The Argyll & Sutherland Highlanders*, p.2.

⁶⁸ See chapter two, page 57, footnote 63. AWM52, 8/3/20, ‘Syllabus of Training: Week Ending 1 Mar 41’, attached to War Diary, 19-24 February 1941.

⁶⁹ The despatch of duplicate copies of war diaries was standard operating procedure for all units, whether training in Australia, or deployed on operations overseas.

⁷⁰ This will be examined in detail in chapter six.

21st Brigade exercise asks ‘can the unit comd use his fd arty?’⁷¹ The results of the exercise presumably supported these doubts. As the 21st Brigade Major stated with reference to the artillery, ‘tasks were few and of very doubtful value. Considering the results achieved against the amount of protection the guns needed, Arty were a doubtful asset’.⁷² Although it is impossible to prove conclusively, beliefs such as this must have contributed to the view that artillery was too difficult to use in jungle warfare.⁷³ In a few months time the terrain of the Owen Stanley Range would appear to confirm this belief.⁷⁴ As a consequence only single guns or, at times, four-gun troops were used in the fighting at Milne Bay and the beachheads. While it is correct that logistical problems in transporting and supplying the guns in forward areas would provide great challenges, the parsimonious use of artillery during these battles made the tasks of the infantry more difficult – and costly – than would otherwise have been the case.

Whether or not similar views to that of the 21st Brigade Major were to blame, the artillery units training in Australia were largely overlooked when preparations began for the move to Papua.⁷⁵ Several artillery regiments, in the course of their training exercises in Southern Queensland, had begun to realise that they would need to operate very differently to the way in which they had become accustomed in the Middle East. As the 2/4th Field Regiment recorded after an exercise with a militia infantry battalion in late June:

Danger of infiltration was forcibly demonstrated. Also difficulty of fighting guns in close country because of no observation...Btys should not be moved more than necessary owing to extreme vulnerability on the move. Can provide own self-protection whilst in position.⁷⁶

⁷¹ AWM52, 8/2/21, ‘Bde Test Exercise No. 1, General Notes’, Appx 4, p. 2.

⁷² AWM52, 8/2/21, ‘Appx 5’, p.1.

⁷³ DVA, AAWFA, Colin Hudson, 2/7th Field Regiment, Archive No. 1484, transcript, time: 4.36.30.00, ‘I might give a bit of a preamble to this, generally speaking it was considered that artillery was not suited to the jungle’. See also Cremor (ed), *Action Front*, p. 183: ‘Unfortunately, the appreciation of the use of artillery was then [late 1942] based on the Kokoda operation. The Americans at Aitape, Hollandia and Bougainville, later showed how artillery could be used in the jungle as well as anywhere else in saving the lives of the infantry’.

Many other artillery unit members voiced similar opinions, demonstrating that they disagreed with the prevailing wisdom which argued that artillery was too difficult to use in the jungle.

⁷⁴ The use of artillery in the Kokoda campaign will be dealt with in the following chapter.

⁷⁵ See, for example, the discussion in Cremor (ed), *Action Front*, pp. 172-83 & R. L. Henry, *The Story of the 2/4th Field Regiment: A History of a Royal Australian Artillery Regiment during the Second World War*, Melbourne: The Merrion Press, 1950, pp. 194-98.

⁷⁶ AWM52, 4/2/4, 25-27 June 1942.

As reports such as this were received at division or corps headquarters, it is easy to extrapolate that the issue of deployment of artillery in a tropical environment should be deemed too difficult.

Similar to the infantry battalions, many artillery regiments were deployed as fortress or static coastal defence units in Southern Queensland in mid to late 1942. Some of those units would find their service in Australia to be a precursor to New Guinea, not however, in a positive sense. The 2/5th Field Regiment discovered that

The despised maps of Merdjayoun [Syria] were remembered as models of topographical exactitude when compared with those now available [Of Southern Queensland].⁷⁷

Unlike the majority of AIF infantry units, however, many artillery units remained in defensive positions in Queensland for many months or even years.⁷⁸ While serving in these areas in 1942-43 unit members were able to participate in rudimentary jungle warfare training exercises.⁷⁹ One artillery regiment officer found, however, that:

We used to think it was jungle training but it was just a travesty of what the actual jungle training was. We didn't do very much at that stage, we did more later on, so called jungle training, but again, it was just a joke compared to what we really found when we went to New Guinea.⁸⁰

It must be stated that before the New Guinea operations of 1943-44 and the 1945 Bougainville and Borneo operations all units undertook far more extensive jungle warfare training than did any units, artillery or otherwise, prior to the 1942 Papua campaigns. As with the infantry units the equipment that artillery regiments were issued with changed little: 'we still used our desert clothes'.⁸¹ Again mirroring the

⁷⁷ O'Brien, *Guns and Gunners*, p. 145.

⁷⁸ The 2/2nd and 2/3rd Field Artillery Regiments did not see action after their return from the Middle East until the final 6th Division Aitape-Wewak campaign from December 1944-August 1945. See the relevant war diaries, AWM52, 4/2/2 and 4/2/3, and the unit histories, Bishop, *The Thunder of the Guns!* And Cremor, *Action Front* for further information.

⁷⁹ For defence work in Southern Queensland see John W. O' Brien, *Guns and Gunners: The Story of the 2/5th Australian Field Regiment in World War II*, Sydney: Angus & Robertson, 1950, p. 145. For artillery unit jungle warfare training prior to departure for Papua see DVA, AAWFA, Peter Gibson, 2/5th Field Regiment, Archive No.0012, time: 5.01.00.05: 'Well, it wasn't for very long of course. It was just, pretty strenuous, going through the various jungle walks...And being told by the instructors what, what not to expect and what to expect...But we. We didn't have, almost doing infantry training in that situation, cause we couldn't take our guns into it [the jungle] of course'.

⁸⁰ DVA, AAWFA, Eustace Marsden, 2/4th Field Regiment, Archive No. 0455, transcript, time: 5.10.30.00.

⁸¹ DVA, AAWFA, Raymond Widdows, 2/12th Field Regiment, Archive No. 1786, Time: 7.08.30.00.

experiences of the infantry, it would not be until they arrived in Papua that the transition to jungle green uniforms and webbing would occur.⁸²

The second problem identified in the 21st Brigade report concerned the cavalry units and more particularly the use of Bren gun carriers by any unit, cavalry or infantry. Their role as the ‘eyes and ears’ of the infantry battalions was greatly hindered by the thickly forested terrain. The report stated that:

It became very evident early in the exercise that cav were at a considerable disadvantage in the type of country encountered; as carrier after carrier became knocked out, either by grenades from ambushes or excellently concealed A Tk guns.⁸³

This finding supports the conclusion reached by the 6th Division units training at the same time on Ceylon, which was discussed in detail in chapter three.⁸⁴ Furthermore, a 25th Brigade Training Instruction issued a week earlier stated that ‘in close country the advisability of using carriers is doubtful. They are noisy, easily stalked and destroyed’.⁸⁵ There was little room for conjecture; all experiments had shown that Bren gun carriers used in thickly forested or jungle terrain could not survive.⁸⁶ As Bennett argued, and was widely acknowledged, they were designed to carry weapons and ammunition in support of infantry attacks over open countryside where their chief assets were their speed and manoeuvrability.⁸⁷ Both these attributes were negated in the jungle. They were not designed as substitutes for tanks or even armoured cars, as they were inadequately armoured for that task. As Kirkmoe stated:

The rest of it would stop perhaps some form of bullet, but it wasn’t meant to be a bulletproof vehicle. We had them, but once we got to New Guinea they were out cos they were useless up there.⁸⁸

Their eventual use, and the subsequent slaughter of their crews at Buna in December 1942, demonstrates a callous disregard for those crews and a distinct failure to digest lessons clearly brought out in training and highlighted on numerous occasions by the units who would have to carry out orders against their better judgement.

⁸² Warby, *The 25 Pounders...from Egypt to Borneo*, p. 177.

⁸³ AWM52, 8/2/21, ‘Preliminary Report by Director’, p. 2.

⁸⁴ See pp. 117-8 of chapter three, especially the report in footnote 75.

⁸⁵ AWM52, 8/2/25, ‘Tng Instn No. 15: Notes on Lessons From Tactical Exercise with Troops No. 4’, 22 June 1942.

⁸⁶ AWM52, 8/3/31, ‘CO’s Report’ in July 1942 War Diary: ‘Exercises carried out, showed that carriers were not suitable in jungle country in their recce role. They proved far too vulnerable’.

⁸⁷ Bennett, *Rough Infantry*, pp. 136, 149.

⁸⁸ DVA, AAWFA, Kirkmoe, 2/10th Bn, Archive No. 1814, transcript, time: 5.08.30.00.

The final point identified by the director of the exercise was the role of the engineers. He stated that engineers were 'essential and they must be well up', near the head of the column so that any demolition or construction work could be effected rapidly.⁸⁹ Although this statement is arguably true of any operation over any ground, in no terrain would it become more important than in the jungles and tropical rainforests of the South West Pacific. The frequency with which rivers and streams had to be forded, and the destruction of numerous Japanese booby-traps and bunkers that required the assistance of engineers made them indispensable. The close co-operation of infantry, tanks, engineers and artillery that became a feature of the later campaigns arguably had its genesis in exercises such as this, even if this was not so clear to the participants at the time.

The majority of engineer field companies, as with the infantry and artillery units, were unable to devote enough time to training in jungle conditions, as they were required for road and bridge-building tasks throughout southern Queensland during this period.⁹⁰ The 2/6th Field Company, RAE, who would in September become the first engineer unit working on the Kokoda Track, spent May to July on road works, with occasional breaks for anti-invasion exercises.⁹¹ At the start of this period it became clear that, at least some units were attempting to obtain information on the Japanese and the possible role of engineers in jungle operations. After receiving yet another report pertaining to engineers in the Middle East the unit plaintively stated that:

Enough has been said of the operations of Engrs in the ME. Any information regarding the operation of 8 Div Engrs in Malaya would be welcomed.⁹²

The lack of any useful information based upon the experiences of engineers or pioneers in the Malayan Campaign, almost six months after it ended, again highlights

⁸⁹ AWM52, 8/2/21, 'Appx 5' p. 1.

⁹⁰ DVA, AAWFA, William Abbott, 2/4th Field Company RAE, Archive No. 1023, transcript, time: 1.22.30.00: 'Anyhow back we go to Tamworth...We generally did have to work when we were in these places. Being engineers our little bridges had to be repaired and things like that. Anyhow we go up to Woodford up on the Brisbane Line. So we did the same thing. We repaired nearly all the bridges around the place'.

⁹¹ AWM52, 5/13/6, see WD entries for May, June and July 1942. 17 July 1942 for 'Demonstration of Flame and Booby Traps etc'. These experiments were clearly designed to disable and destroy Japanese AFVs soon after they had landed on the Australian coastline, and were of little relevance for the units' forthcoming role on the Kokoda Track.

⁹² AWM52, 5/13/6, 23 May 1942, 'Engineers News Item No. 2 – First Aust Army – Notes on the Employment of Engineers in certain theatres in the Middle East' p. 3.

a military struggling to come to terms with a new paradigm. As Bennett's 49-page report only devoted a page and a half to engineer issues – combined with the loss of January and February 1942 unit war diaries during the retreat to Singapore – perhaps it is not surprising that little information was forthcoming.⁹³ The 2/4th Field Company, soon to be toiling in the horrendous conditions at Milne Bay, like the 2/6th Fd Coy, spent the months before it deployed on tasks that provided little useful preparation for the challenges ahead.⁹⁴ Notwithstanding the lack of direction from above, the units themselves were attempting to pre-empt the forthcoming challenges of a tropical environment. The 18th Brigade, in a very prescient report, stated that 'in jungle warfare the necessity of members of [the pioneer] pl being detailed to fwd coys during any advance cannot be over stressed'.⁹⁵ For the engineers, as for most other arms however, learning to cope with the challenges of jungle warfare would occur in combat.

Soon after this exercise, and others like it, some sources have identified a change in training emphasis and argued that infantry units, in particular, devoted greater time to more realistic jungle warfare training. The 2/16th historian recounted that by July it had become clear that combat would occur not in Australia but in:

New Guinea, where a campaign in dense jungle and without roads, railways and air bases would be vastly different to the method in which the troops were then being trained. Battalion training changed again. The new method (which proved to be a little closer to actual experience)...required [the troops] to maintain themselves on what they could carry [and]...gave all ranks some appreciation of the demanding type of warfare which was to face them in New Guinea.⁹⁶

This understanding is, however, in contrast to the majority of training syllabi issued at the time, which continued the focus upon the lessons of Malaya, and more puzzlingly, of the Middle East.

⁹³ AWM54, 553/5/16 Pt 2, 'Report by Major General Gordon Bennett on Malayan Campaign 7th Dec to 15th Feb 1942'. See pages 35-6 for information on 'Defences constructed during campaign' and 'Scorched earth policy & demolitions'.

⁹⁴ AWM52, 5/13/4. See War Diary entries for May to August 1942. During April the Company had trained in building improvised rafts and bridges, however none of the techniques they applied were used at Milne Bay.

⁹⁵ AWM52, 8/2/18, 'Notes on Comd's Discussions Pt III, Training of Employment and Pioneer Pl', no date, but the document appears in the appendices to the July 1942 WD.

⁹⁶ Uren, *A Thousand Men at War*, p. 114.

In early July 7 Australian Division issued a training memorandum to all units under its command. This four-page document, which contains extracts from “Green Jacket Motoring”, was ‘produced to assist in the tng of motor bns’.⁹⁷ These were based upon lessons compiled by the British Royal Green Jacket Regiment, after the May/June 1942 Gazala battles against General Rommel’s Afrika Korps in the Western Desert. Their applicability to the forthcoming campaigns is tenuous at best. At the same time training syllabi stressed that ‘*ATM (Aust) Nos 9 & 10* will be read thoroughly by all offrs, and principles applied’.⁹⁸ As discussed earlier, these training memoranda, especially Bennett’s *ATM No. 10*, were based almost solely upon the experiences of Malaya and only applicable for operations in similar terrain, including the defence of Australia.

If the training emphasis had changed distinctly at this time in preparation for embarkation to Papua and New Guinea, it would appear logical for unit training syllabi to reflect this change. This evidence is not forthcoming. From the available material it appears more plausible that until after the clear defeat of the Japanese fleet at Midway Island on 6 June 1942, the Australian government, along with General MacArthur and the CGS, were unwilling to commit too many forces to Papua.⁹⁹ As a consequence 1st Australian Corps and 7 Australian Division were unable to set clear training parameters that would have enabled their units to concentrate upon jungle warfare training. Units therefore continued with exercises in mobile defence, movement with reduced – but still some – transport, and hardening up in the forests of southern Queensland.

It can also be posited from this lack of evidence of clear changes in the training syllabi highlight that the Australian Army was preparing for the sort of war that it had already experienced and therefore knew how to fight. Galvin has argued that:

We tend to invent for ourselves a comfortable vision of war, a theatre with battlefields we know, conflict that fits our understanding of strategy and tactics, a combat environment that is consistent and predictable, fightable with

⁹⁷ AWM52, 1/5/14, ‘Tng – Active Defence – Battle Manoeuvre’, 2 July 1942. Copies of it also appear in most 7 Division Brigade and Battalion War Diaries. For example AWM52, 8/2/18, ‘Tng Objectives to 31 Aug 42’, Attached notes.

⁹⁸ See, for example, AWM52, 8/3/14, ‘Tng For Period 20 July – 1 Aug 42’, p.1 and AWM52, 8/2/18, ‘Tng Objectives to 31 Aug 42’ HQ 7 Aust Div, 7 July 42.

⁹⁹ Horner, *High Command*, p. 196. As Horner states, it was not until 20 July 1942 that MacArthur moved his HQ to Brisbane and made preparations ‘to advance to the north coast of Papua’.

the resources we have...we arrange in our minds a war we can comprehend on our own terms, usually with an enemy who looks like us and acts like us.¹⁰⁰

As the vicious and unforgiving combat at Milne Bay and Kokoda would soon demonstrate, this conflict and the enemy, were not like any the Australian Army had encountered previously. This may explain why preparations were focused on a war that was familiar, rather than preparations for the war that actually confronted the Australian Army. That the implementation of training was a unit responsibility, as discussed earlier, also impacted upon the uniformity of the lessons taught.

During this period attempts at increasing the training and experience of all units throughout Australia continued. In particular the fostering in of detachments of militia personnel and the temporary posting of training cadres to other militia units was prevalent. 2/14th Battalion recorded that nearly 60 members of the 24th Battalion trained with the unit for the majority of July.¹⁰¹ These attempts to improve the standard of the militia also saw many officers and NCOs transferred to new units.¹⁰² Although a necessary measure to improve the standard, experience and training of the militia, this policy would have a detrimental effect upon the units who lost many experienced soldiers.¹⁰³ Brigadier Ken Eather, commanding officer of the 25th Infantry Brigade 'became deeply worried that the numbers were too great and that the fighting capacity of his command was being markedly reduced'.¹⁰⁴ At a time when the AIF was grappling with the new paradigm of jungle warfare it is arguable that the policy should have been delayed until after the immediate threat to Australia had been removed.¹⁰⁵

¹⁰⁰ General John R. Galvin, 'Uncomfortable Wars: Towards a New Paradigm', pp. 9-18, in Max G. Manwaring (ed), *Uncomfortable Wars: Towards a New Paradigm of Low Intensity Conflict*, Boulder CO: Westview Press, 1991.

¹⁰¹ AWM52, 8/3/14, 14 July, '7 Offrs and 50 ORs attached to our Unit for three weeks training – from 24 Bn AMF'.

¹⁰² AWM52, 8/3/25, 8 June 1942: 'Lieuts Thorne and Shaw promoted Cpts and transferred to Militia Units. W. O. 1 RSM Parsons and Sgt appointed Lieuts and also transferred to Militia'.

¹⁰³ Hetherington, *Blamey*, p. 142.

¹⁰⁴ Eather, *Desert Sands, Jungle Lands*, p. 53.

¹⁰⁵ Admittedly the Australian Army High Command was in an invidious position. The majority of their best-trained and only combat experienced units were either in the Middle East or had only recently arrived home. The need to improve the training of militia units was clear to all. How, or in what better manner the training of militia units could have occurred without having a negative impact upon the AIF units who were losing men and officers is beyond the scope of this thesis.

In the weeks before the 18th and 21st Brigades left for Papua a more systematised approach to jungle warfare training was being inaugurated. This would arrive too late for the majority of the 7th Division and was most likely directed at the commanders of militia and US units.¹⁰⁶ After viewing a III Corps exercise in Western Australia in mid-July which was ‘apparently aimed at teaching Japanese tactics and methods’, General Blamey secured the services of the organising officer, Lieutenant-Colonel Wolfenden.¹⁰⁷ He was to ‘pass on these lessons and teach those methods to formations in First and Second Armies’.¹⁰⁸ Wolfenden had no experience of jungle warfare and according to the 2/6th Field Regiment, his ‘remarks were based upon notes supplied by Gen Gordon Bennett’.¹⁰⁹ These notes included Bennett’s report on the Malayan Campaign and his *ATM No. 10*. Once again the Australian Army would be practising the lessons of Malaya.

In late August the 25th Brigade conducted an exercise in the countryside near Caboolture, Queensland, which was viewed by over 300 officers. The demonstrations included ‘mobile defence’ and ‘advance against minor opposition’.¹¹⁰ The report stated that the viewing difficulties created by the ‘thickly timbered’ terrain were overcome and ‘the exercises successfully carried out’.¹¹¹ The exercise may have been successful from Wolfenden’s perspective in that it demonstrated how to counter the types of tactics the Japanese had used on the roads of Malaya. However, in no way was it a useful exercise in preparing the observers or participants for combat in the swamps and mountains of Papua and New Guinea.¹¹² Notwithstanding the lack of actual jungle warfare experience of Wolfenden and his team, a month later he would lecture the recently returned 17th Brigade ‘on infantry tactics in jungle country’.¹¹³

¹⁰⁶ Moremon, ‘Most Deadly Jungle Fighters?’, p. 44.

¹⁰⁷ Ibid.

¹⁰⁸ AWM54, 553/6/3, Lt Col JR Wolfenden, ‘Lessons from operations against the Japanese: resume of activities of LHQ Instructional Staff to Nov 43’, tabled as evidence to Army Court of Inquiry into Bennett escape, 26-30 October 1954, in Bennett papers.

¹⁰⁹ AWM52, 4/2/6, 27 September 1942. The war diary for this day records that: ‘All offrs of the Regt attended a lecture at Bde HQ. The lecturer was Lt Col Wolfenden of LHQ’.

¹¹⁰ AWM52, 8/2/25, ‘Report by Lt-Col J. R. Wolfenden. Demonstrations – 30 August 1942’

¹¹¹ Ibid, p.2.

¹¹² Eather, *Desert Sands, Jungle Lands*, pp. 55-6.

¹¹³ AWM52, 8/2/17, 24 September 1942. The 17th was stationed at Greta NSW, as it waited to be deployed to Papua or New Guinea.

For those units of the 7th Division soon to embark for Papua, the last few weeks training were spent much as the previous two months had been. Battalion exercises – based upon *ATMs Nos 9 and 10* – with supporting arms continued, as did patrolling and close quarters combat drills on the range.¹¹⁴ A standard feature of the war in the Middle East, patrolling at night, at which the Australians were particularly adept, was conducted regularly.¹¹⁵ At least one night a week, and often several, was devoted to all-night exercises. Once the 7th Division engaged the Japanese in Papua, however, it was quickly discovered that movement at night was far more difficult than in the desert. Most units banned movement both inside and outside their perimeters after dark, and night patrols were rarely conducted. As Connor stated:

You couldn't see anywhere, it was just, and they could have crept up on you anywhere. So we put in a rule at night - anybody that walked got shot. If you wanted to go to the toilet, you crawled. You never got up, because we didn't know if the Japs came in, how could you tell?¹¹⁶

As with much of the previously discussed inappropriate training, a higher standard of intelligence work and some simple local knowledge would have allowed the army to better align its training with the conditions in which they were soon to operate. Learning on the job is expected in many fields, but for an army it comes at a very high price, usually paid for with men's lives.

Information on experiments conducted by the units continued to be forwarded to 7 Division HQ, and onwards to Corps and Army HQ, to no apparent effect. The 2/10th Battalion reported that 'training during the month was carried out in jungle country, and naturally this played havoc with the troops KD trousers, shirts and shorts'.¹¹⁷ Within days of their arrival at Milne Bay the harsh conditions and torrential rain had accelerated the deterioration of their sun-bleached desert uniforms. The need for uniforms made of stronger material or an increase in the issue to each soldier was clear. The statement above by the 2/10th Battalion's quartermaster suggests that this information should have been known before deployment. That it was not reinforces

¹¹⁴ AWM52, 8/3/27, 'Fd Firing Exercise', 21 July 1942.

¹¹⁵ From March until their departure in August, night exercises were a focus. See, for example AWM52, 8/3/14, 'Training Instruction No. 29' 31 March 1942; AWM52, 8/3/9, 'Monthly Syllabus' 8 June 1942; AWM52, 8/3/25, 'Syllabus of Training' 13-19 July 1942 and AWM52, 8/3/14, 'Tng Syllabus for Week Ending 8 Aug 42'.

¹¹⁶ DVA, AAWFA, George Connor, 2/33rd Battalion, Archive No. 1175, time: 6.33.30.00.

¹¹⁷ AWM52, 8/3/10, 'Quartermaster's Report' July.

the argument that the army had little understanding of the myriad of problems its units would face in jungle warfare.

Discussions on ‘whether gaiters are considered essential’ in jungle conditions further highlighted the lack of knowledge of the new battle area by those in positions of power in the Australian Army.¹¹⁸ A week later a letter from the 18th Brigade to 7 Australian Division stated that they were essential and further that, ‘The ordinary issue type US Army Legging is the type required’.¹¹⁹ In a handwritten comment on the margin of this entry the Brigade Commander, Brigadier Wootten noted that ‘the cloth SD uniform tears too easily and will not stand up to the wear and tear of bush fighting’.¹²⁰ The men who would bear the brunt of the jungle conditions, the combat arms, had begun to identify problem areas, but higher command and the administration were unable to provide tactical or equipment solutions. The 18th Brigade would find soon after their arrival in Papua that much of their equipment was:

Quite inadequate in the boggy swamps and swollen creeks of Milne Bay. The Americans on this score were much better organized with their footwear and uniforms and very soon the American style gaiters were very much sought after by the Australian soldiers.¹²¹

Approximately half the members of the 21st Brigade would receive US issue gaiters prior to marching forward to Kokoda.¹²² They would, however, still be wearing their khaki uniforms of shirt and shorts, wholly inappropriate to the dark green jungles of Papua.¹²³ First discussed in chapter two, it was almost a year since Lieutenant-Colonel Youl, commander of the 2/40th Battalion on Timor, had recommended that

¹¹⁸ AWM52, 8/2/18, ‘Routine Orders Part 1, No. 85 Gaiters SD’ 11 June 1942: ‘Advice has been received from 1 Aust Corps that no further supplies of gaiters web or canvas will be available. Before orders are placed for gaiters SD it is desired that unit comds comment on: - I) Whether gaiters are considered essential’.

¹¹⁹ Ibid, War Diary 18 June 1942. (The response arose after problems were encountered on a recent TEWT in the Murgon area. The US Army legging was a full-length gaiter, unlike the standard issue Australian anklet legging and therefore provided much greater protection to the lower leg.)

¹²⁰ Ibid.

¹²¹ Graeme-Evans, *Of Storms and Rainbows*, p. 32.

¹²² AWM52, 8/2/16, 16 August 1942. See also Burns, *The Brown and Blue Diamond at War*, p. 110: ‘Four hundred and fifteen pairs of American-type gaiters had been issued and were of great benefit to those who were fortunate enough to receive them’. (A battalion at full strength numbered approximately 900 men.)

¹²³ Most other units, including the artillery, would not receive jungle green uniforms until they arrived in Papua. DVA, AAWFA, Widdows, 2/12th Fd Regt, Archive No. 1786, transcript, time: 7.08.30.00, ‘We still used our desert clothes until we got to, to the islands’.

camouflage uniforms be adopted for units serving in the jungle.¹²⁴ 7th Division Headquarters clearly agreed with this view. One of their final reports, containing information based on experiments by 25th Brigade, concluded that, 'it is strongly recommended that where tps are liable to operate in jungle country, clothing be dyed a green colour (similar to that used by Dutch troops)'.¹²⁵ One who did not believe in the need for such uniforms was General Blamey. When asked by war correspondent Chester Wilmot in a stormy press conference on the 13 of September 1942, if camouflaged uniforms were necessary, Blamey:

Said they were not; that khaki had been designed in India as the ideal camouflage for the jungle; and that he had no evidence that this jungle was different from that in India.¹²⁶

This was of course, in the future, for the time being 7th Division would leave Australia in the same type of uniforms they had worn during the Syrian and Tobruk battles.

In the days before their departure, the 18th and 21st Brigades continued training and made preparations to sail. Amendments to unit War Establishment occurred until the day they embarked. On 30 August the 2/25th Battalion received an issue of 42 Thompson Sub-machine guns, doubling the number previously held.¹²⁷ The belief by some of the unit members that a recent visit by General MacArthur was the catalyst for this decision is impossible to substantiate.¹²⁸ At the same time the infantry battalions of the recently returned 16th Brigade, 6th Division, were also being issued with a further 42 Thompson Sub-machine guns.¹²⁹ This suggests that at least one of the lessons of jungle training evident in both Southern Queensland and Ceylon – that in close quarters combat a higher percentage of automatic weapons was essential – had been accepted by Army Headquarters. Although this marginal increase in

¹²⁴ See chapter two, p. 73-4.

¹²⁵ AWM52, 1/5/14, 'Experiments in Jungle Warfare Final Report' Appx "A", 7 August 1942.

¹²⁶ NAA (Sydney), SP 300/4, Item: 321, 'Observations on the New Guinea Campaign August 26th – September 26th 1942, p. 4.

¹²⁷ Allan W. Draydon, *Men of Courage: A History of the 2/25 Australian Infantry Battalion 1940-1945*, Chermiside Queensland: 2/25 Australian Infantry Battalion Association, 2000, p. 108.

¹²⁸ Ibid, p. 108.

¹²⁹ AWM52, 8/3/2, 14 September, 'On being ordered to move every effort was made to bring the Bn up to establishment in amm and eqpt. There was an issue of 42 extra TSMGs'.

automatic weapons would not have a marked effect during these campaigns, by the following year major changes would occur.¹³⁰

Only days before they boarded ship the 2/14th received *ATM No. 11*, which contained more lessons of Malaya. It was ordered that it should be 'thoroughly read by all offrs and principles applied to future tng'.¹³¹ The fifteen page appendix 'Operations in Malaya Dec 41-Feb 42' was a reprise of Bennett and Stewart's reports.¹³² The fixation upon Malaya showed no signs of abating. Notwithstanding this, the majority of the 7th Division appears to have believed that whatever challenges the new enemy and new terrain threw at them their training had prepared them well. The reflective statement by the 2/16th Battalion's historian that 'the men were certainly tough and in some measure prepared, but later actual jungle fighting exposed weaknesses in equipment in supply and in methods' was closer to the truth.¹³³

In the six months available to the returning AIF soldiers very little useful training had been undertaken. Fitness and hardening-up exercises, combined with anti-invasion exercises, had dominated the training syllabi. While this would mean the men were physically fit, it did not adequately prepare them for the challenges of Kokoda, Milne Bay or the Beachheads.¹³⁴ To the best of their ability the units had studied and practised the lessons of those who had fought in Malaya, the Philippines and the Netherlands East Indies. The training manuals of Bennett, Stewart and Brink had been pored over and numerous exercises based upon those works were carried out. Experiments had been conducted in terrain that they believed was similar to Papua and New Guinea. But for the commanding officers there had been insufficient time to devote to training in between the obligatory road-making parties and coast-watching duties.

¹³⁰ This will be dealt with in greater detail in chapter six. See page 277.

¹³¹ AWM52, 8/3/14, 'Tng Syllabus for Week Ending 8 Aug 42'.

¹³² *ATM No. 11*, 'Appendix A (Parts 1 & 2) pp. 35-49.

¹³³ Uren, *A Thousand Men at War*, p. 114.

¹³⁴ McAllester, *Men of the 2/14th Battalion*, p. 334, 'Although 21 Australian Infantry Brigade had returned from the Middle East in March 1942, months were spent training in Queensland when the Brigade might have been better employed learning to face the problems of terrain and climate in New Guinea'.

That the terrain, weather conditions and combat they would face in days would be a severe shock, was not the fault of the soldiers required to halt and then force back the Japanese. Responsibility for the lack of information on the new theatre of operations must be borne by Land Headquarters in Melbourne and New Guinea Force Headquarters in Port Moresby. From March to July 1942 no member of the 7th Division had the opportunity to see firsthand the conditions they would soon be confronting.¹³⁵ Thus, they had no well-grounded expectations of jungle warfare in Papua. Not even the suggestions made by many units concerning changes in equipment, uniforms, rations or doctrine, had been accepted or implemented – notwithstanding some tactical modification at the unit level. The overriding belief, from high command to sub-unit level was that significant changes were unnecessary in order to defeat the Japanese. Within days of arriving in Papua, the 18th and 21st Brigades would alter this presumption and the development of an Australian jungle warfare doctrine would begin in earnest.

¹³⁵ This was not unusual, the militia battalions already in Port Moresby had been so busy constructing defences and unloading ships that they had had little time for training, let alone to explore the Kokoda Track or the jungle conditions they were asked to operate in from July onwards. Only an occasional reconnaissance patrol had been despatched to examine approaches to Port Moresby. See, for example Brune, *Those Ragged Bloody Heroes*, p. 10.

Chapter 5: 'We Had To Change Our Ideas': The Papuan Campaign 1942-43

On 12 August 1942 as the troopships carrying the 18th and 21st Australian Infantry Brigades to Milne Bay and Port Moresby arrived at their respective docks¹, many of the troops were looking forward to meeting – and defeating – the much-vaunted Japanese they had heard about.² While they were extremely fit, well trained and battle-hardened, they had little real understanding of the challenges, or the enemy, that lay ahead.³ The six months of hard, bitter and merciless fighting that would follow laid the groundwork for the first realistic jungle warfare training manuals and would see the establishment of the LHQ Training Centre (Jungle Warfare) – otherwise known as Canungra. Before February 1943, however, many costly lessons would be learnt, as the Australian Army struggled to defeat the Japanese, while at the same time trying to adapt to the terrain and climate of Papua and New Guinea.

Lessons that could, and should have been learnt prior to the fighting on the Kokoda Track and at Milne Bay, would have to be assimilated and applied during the campaigns. Units would be thrown hurriedly into battle as soon as they arrived in theatre, with little time for acclimatisation or reconnaissance. Until the retreat to Imita Ridge, the Japanese would hold the 'tactical initiative' with the Australians reacting awkwardly to both their enemy and the terrain.⁴ Modification to infantry tactics that had brought success in the Middle East would be necessary, but slow in occurring. Hundreds of unnecessary casualties were the predictable result. Nevertheless, by early

¹ Of the 18th Brigade's three battalions, only the 2/10th arrived on 12 August. It was followed by the 2/9th on 15 August and the 2/12th on 17 August. See AWM52, 8/3/10, 8/3/9 and 8/3/12 respectively for information. The 2/14th and 2/16th Battalions of the 21st Brigade arrived at Port Moresby on 12 August followed on 15 August by the 2/27th. See the relevant war diaries for 12 and 15 August 1942.

² See, for example Burns, *The Brown and Blue Diamond At War*, p. 105, 'The Battalion was at full strength, fit and ready for action. It felt confident of its ability to fight in jungle country, and to master a new type of warfare', and DVA, AAWFA, Ronald Hansen, 2/9th Bn, Archive No: 0878, Time: 6.15.00.00: 'they thought they'd [the Japanese] be a pushover'; and DVA, AAWFA, Robert Thompson, 2/14th Bn, Archive No: 1594, Time: 6.25.00.00, 'I think we were rather pleased [to finish training and move to New Guinea.]' and Clive Baker & Greg Knight, *Milne Bay 1942: The Story of 'Milne-Force' and Japan's First Military Defeat on Land*, Loftus, NSW: Baker-Knight Publications, 1992, p. 89 who quoted an unnamed 18 Brigade intelligence man, 'As to fighting the Japanese, we were very cock-a-hoop having come from a victorious campaign. When the militia had been pushed back, in our bravado we said, "Let's get stuck into these Jap bastards and show how to do this".'

³ DVA, AAWFA, Raymond Baldwin, 2/27th Bn, Archive No. 1214, Time: 5.34.00.00: [On the voyage to Port Moresby] 'I do remember one day and I always laugh about this they had photos somewhere on the ship with two naked soldiers, one was a Japanese naked soldier and one was a Chinese naked soldier and their hair on their body differed. I often used to think to myself "What do we have to do, strip them off so that we can identify them?"'

⁴ Sholl, 'Points Noted and Lessons Learnt', p. 38.

1943, the hard won experience of those soldiers was beginning to pay dividends on the battlefield, in training establishments, and with the publication of jungle warfare training memoranda and manuals specific to Papua and New Guinea. In September 1943 the value of the accumulated lessons of Kokoda, Milne Bay and the Beachheads would be tested when the 7th and 9th Divisions' went into action in the Ramu-Markham and Lae-Finschhafen Campaigns.

'Tyros in jungle fighting': Port Moresby August 1942

For the men of the 2/14th and 2/16th Battalions of the 21st Brigade, disembarking at Port Moresby, that was a long way in the future. The disorganisation that had characterised the arrival of each of the three militia battalions of the 30th Brigade stationed in Port Moresby had improved in the intervening months.⁵ What had not improved was the lack of information available to the commanders of the 21st Brigade about the terrain, and in particular the Kokoda Track, over which the Japanese were advancing.⁶ Why this was so remains difficult to understand: as Nelson has demonstrated, the 'Kokoda Track – for 40 years a mail run – was one of the best known tracks in Papua'.⁷ Numerous government officials, postal workers, ANGAU officers, expatriate planters and the natives themselves could have provided detailed information about the conditions on the track.⁸ The failure to provide the units on the

⁵ For detailed information on the logistical shambles which highlighted the arrival and later training of the 39th, 49th and 53rd Bns see Victor Austin, *To Kokoda and Beyond: The Story of the 39th Battalion 1941-43*, Melbourne: Melbourne University Press, 1988, pp. 26-29; F. M. Budden, *That Mob! The Story of the 55th/53rd Australian Infantry Battalion, AIF*, Glebe NSW: Wild & Wooley Pty Ltd, 1973, pp. 10-12; F. Cranston, *Always Faithful, The History of the 49th Battalion*, Brisbane: Boolarong Press, 1983, pp. 128-130; Brune, *Those Ragged Bloody Heroes*, pp. 10-16; Ham, *Kokoda*, pp. 22-25 and Osmar White, *Green Armour*, Ringwood Vic: Penguin, 1992, pp. 47-8.

⁶ LHQ in Melbourne did, however, have up to date information about the track. Why Brigadier Potts was not provided with this before he departed for Port Moresby is surprising, but appears at this distance from the events, impossible to determine. See, for example, NAA, MP729/6, 39/401/293, 'Overland Routes Port Moresby to Buna', dated 25 June 1942, a full six weeks before the 21st Brigade sailed for New Guinea. This report discusses the two reconnaissance parties that were 'at present investigating possibilities of motor road from Port Moresby to Buna'. While they would find no 'motor road' these militia reconnaissance parties provided information – including an attached map – of their journeys that would have proven valuable to Pott's command and the others that followed.

⁷ Hank Nelson, 'Kokoda: The Track From History to Politics' *The Journal of Pacific History*, Vol 38, No. 1, 2003, p. 115. Possibly just as difficult to understand is how so many authors continue the myth that the Kokoda Track was 'little known' 'virtually impassable' and 'rarely used'. Nelson clearly demonstrates that none of these descriptions was accurate, in 1942 or pre-war.

⁸ As Nelson highlights, these crossings were not ancient history, since many of them occurred when planters and missionaries on the north coast escaped before and after the Japanese landings at Buna in July 1942. Nelson, 'Kokoda: The Track From History to Politics', pp.113-115. When they were not unloading ships, digging latrines or building roads and defensive fortifications, the militia units were also sending out patrols to explore the Kokoda Track and surrounding areas. See Colin Kennedy, *Port Moresby to Gona Beach: 3rd Australian Infantry Battalion*, Canberra: The Practical Group, 1991,

ground with all the available information is further evidence of a military organisation struggling to come to terms with a rapidly changing, unforeseen set of circumstances in an unfamiliar environment.

Unlike the militia battalions, who had been stationed in malarious Port Moresby since their arrival, the commander of the 21st Brigade, Brigadier Potts insisted on moving his units to Itiki after disembarkation. This area was several kilometres inland and at a higher elevation, thereby removing much of the risk posed by malaria-carrying mosquitoes.⁹ The 21st Brigade, again in contrast to the 30th Brigade, had been issued with quinine tablets, in preparation for the expected malaria problems at Port Moresby.¹⁰ While this was possibly a sign that the military had learnt from the disastrous delay in issuing quinine to the militia units – both the 30th Brigade at Port Moresby and the 7th Brigade at Milne Bay – the move to Itiki rendered it superfluous. As Steward would later write, ‘the space they [the quinine tablets] occupied in my pack could have at least been shared by sulphaguanidine, salt and vitamin B tablets [which were not available in sufficient numbers]’.¹¹ The height above sea level of the Kokoda Track meant that the malaria threat was largely irrelevant for the Kokoda campaign.¹² In the four days between their arrival in Port Moresby and their departure from Itiki to the start of the track, the three battalions therefore concentrated upon learning as much as they could of the conditions they would soon be facing.

With air-supply of military forces in its infancy, the main focus of the 21st Brigade was in determining what they could, and could not carry.¹³ The three days at Itiki

Appendix One, NGF Intelligence Report No. 34 ‘Recce Report Sogeri-Kokoda Track, 27th June – 4th July 1942’.

⁹ Ham, *Kokoda*, pp. 159-160.

¹⁰ H. D. Steward, *Recollections of a Regimental Medical Officer*, Melbourne: Melbourne University Press, 1983, p. 77. Steward was actually handed a brown paper packet containing 20,000 quinine tablets whilst waiting on the dock in Sydney to board the troopship *James Fenimore Cooper*.

¹¹ *Ibid.*, p. 87. Sulphaguanidine was used to treat dysentery. Steward was also annoyed at the lack of morphine. Both of these critically important drugs should have been available in sufficient quantities.

¹² Whereas for the Milne Bay and Beachhead campaigns, fought in heavily malarious areas, there was little, and at times no anti-malarial protection. The 18th Brigade, like the 7th Militia Brigade before them at Milne Bay, would therefore be severely debilitated by malaria, suffering far more casualties through disease and sickness than battle.

¹³ The Australian Army had discussed air supply of ground units as early as 2 September 1941, but a year later no satisfactory system had been developed. See the third report entitled ‘Precis of Correspondence Re Parachute Dropping Apparatus’ in AWM54, 85/4/10, ‘Supply Dropping from the Air – Copy of a report submitted by Lt-Col Binnie’, August-November 1942. As a consequence, the vast majority of air supply to the Kokoda forces was ‘free’ dropping – that is without parachutes – which resulted in high levels of wastage and damage to supplies and the occasional death of personnel

were therefore spent in 'urgent preparation for battle'.¹⁴ The 2/14th war diary noted that 'each Coy was asked to supply one man fully eqpt to demonstrate what they considered to be the best and most comfortable method of carrying'.¹⁵ Eventually the entire 21st Brigade would adopt the design of the 2/16th Battalion, but at this stage each battalion arrived at a solution independently.¹⁶ Two of the first items to be left behind – due, it was argued, to their weight and the difficulty of re-supply – were the support weapons the battalions would urgently require once the fighting began: the 3-inch mortars and the Vickers medium machine-guns.¹⁷

While there is some virtue in the argument that these weapons were too heavy and awkward to be of use in jungle warfare, it is clear that traditional tactical thinking played a part in the decision to leave them behind at Port Moresby.¹⁸ Captain Bidstrup of the 39th Militia Battalion discovered after a reconnaissance flight over the Kokoda area in late-July 1942, that higher authority had preconceived ideas of jungle terrain. As Bidstrup was about to march over the track to rejoin his unit on 29 July he was approached by General Basil Morris who asked:

'Believe you flew over?' 'Yes Sir'. 'What's the track like?' I said that I was quite surprised. There were quite a few open spaces where I believed we could use mortars. And he said 'Rot boy! Bloody rot! The mortars would burst in the tree tops!'¹⁹

This view clearly filtered through to the 21st Brigade when they arrived less than two weeks later. Robert Iskov, a mortarman serving with the 2/14th Battalion recalled that:

The thought was that the mortars would not be of much use because of the terrain and the fact that you wouldn't get many opportunities for fire because of the overhead cover.²⁰

on the ground. See also Douglas Gillson, *Royal Australian Air Force 1939-1942, Australia in the War of 1939-1945*, Series 3 Air, Volume 1, Canberra: Australian War Memorial, 1962, pp. 600-602.

¹⁴ Russell, *The Second Fourteenth Battalion*, p. 121.

¹⁵ AWM52, 8/3/14, 14 August 1942.

¹⁶ Russell, *The Second Fourteenth Battalion*, p. 122.

¹⁷ Uren, *A Thousand Men at War*, p. 134, [After retreating uphill from Alola] 'Although this position was under fire from Alola the Australian troops had no arms with sufficient range to reply, much to the disgust of the troops watching the ceremonial proceedings in the village'; see also Paull, *Retreat From Kokoda*, p. 154.

¹⁸ The plan was for some of these weapons to be delivered to the airstrip at Kokoda at a later date. Due to the inclement weather and the destruction of most of the transport aircraft at Seven Mile Drome in a Japanese air raid on 17 August, these plans were thrown into chaos. For discussion of the attack by eyewitnesses see, for example Neil McDonald, *Damien Parer's War*, South Melbourne: Lothian Books, 2004, pp. 205-6.

¹⁹ Brune, *Those Ragged Bloody Heroes*, p. 47. Morris was NGF commander.

²⁰ DVA, AAWFA, Iskov, 2/14th Bn, Archive No. 1999, Transcript, time: 5.10.30.00.

On the same day as the exchange between Morris and Bidstrup was taking place the Japanese were bombarding the 39th Battalion's positions at Kokoda with mountain gun and mortar fire.²¹ Whether this information had been relayed to New Guinea Force (NGF) Headquarters in Port Moresby is unclear. What is clear is that the 39th Battalion war diary for the period repeatedly lists the type of weapons the Japanese were using. This means that NGF HQ should have had this information available to pass on to the 21st Brigade two weeks later when they were preparing to advance in support of the 39th. If Colonel Potts had known that the Japanese were using mortars, heavy machine-guns and mountain guns, it is inconceivable that he would have left Port Moresby without a reasonable proportion of his own support weapons.²² The fact that the Japanese had successfully used mortars and heavy machine-guns eight months earlier in the jungles of Malaya, the Netherlands East Indies and Philippines does not appear to have been taken into consideration by planners prior to the Kokoda operations. Nor does there appear to be any understanding that Japanese doctrine stressed the need for a preponderance of mortars so that they 'could dominate the battlefield during close-quarters fighting between infantry units'.²³

As well as their willingness to employ mortars, the Japanese also utilised their large numbers of heavy and medium machine-guns to keep the militiamen pinned down in their defensive positions, so that an assaulting force could advance with less opposition. This demonstrates that they did not believe these weapons to be impossible to deploy in the jungle.²⁴ Militating against their employment by the Australians – either the militia or later the AIF – was the longstanding view that machine-guns, and to an extent mortars, needed a clear field of fire so that fall of shot

²¹ AWM52, 8/3/78, 29 July 1942. See, also the war diary entry for 25 July in which mention of the unit being under heavy fire 'including MG and mortar' is stated.

²² There are therefore only two possibilities: either Potts wasn't informed of how well-armed the Japanese were, which suggests gross dereliction of duty by NGF HQ or, secondly, that he had been assured that his supporting weapons and an adequate supply of ammunition would make it to Kokoda by plane before him, meaning that he could afford not to take them overland. The second possibility makes the assumption that Potts could have been sure that he would definitely not meet the Japanese before he needed those weapons. A rash assumption to make, and one unlikely to have been made by an experienced commander.

²³ A. T. Ross, *Armed and Ready: The Industrial Development and Defence of Australia 1900-1945*, Sydney: Turton & Armstrong, 1995, p. 414.

²⁴ At least a week prior to the 39th Bn engagement, the Papuan Infantry Battalion, who had first attempted to halt the Japanese advance over the Kokoda track, had identified them near Sangara as being 'armed with mortars, machine-guns and a field piece'. McCarthy, *South-West Pacific Area First Year*, pp. 124-5.

could be observed and adjustments made onto targets.²⁵ In thick jungle these prerequisites would generally not be met, appearing to support the view that these weapons would be of little value in Papua and New Guinea.²⁶

With both 3-inch mortars and medium machine-guns having been used by the 21st Brigade in Syria where line of sight was rarely a problem, it is understandable that these units did not argue vigorously for their retention once they saw their new operational environment.²⁷ However, as Sholl has argued, what the Japanese realised and some Australia commanders clearly did not, is that ‘suppressive area fire’ rather than pinpoint direct fire on a distant position could be equally effective.²⁸ The sheer weight of fire that medium machine-guns, such as the Vickers or the Japanese Juki or Woodpecker could lay down on an enemy position was arguably more devastating in close-quarters jungle combat where it was difficult to identify exactly where that fire was coming from or to respond adequately.²⁹ Eventually the value of MMGs would be recognised and incorporated into jungle warfare training manuals:

In tropical warfare, the medium machine gun can be used to full advantage in supporting the infantry with a concentrated volume of sustained accurate fire.³⁰

For the time being, however, the 21st Brigade had to suffice with the weapons it was felt they could comfortably carry. The order to leave their support weapons behind, therefore, occurred not because of the enemy, but largely as a reaction to the perceived nature and difficulties of the terrain. Until the Australians had become more accustomed to the nature of the unfamiliar terrain and the difficulties inherent in

²⁵ See *Infantry Minor Tactics – Australia 1941*, p. 51 for a description of how MMGs should be used. This section supports the traditionally held views discussed above.

²⁶ See Sholl, ‘Points Noted and Lessons Learnt’, p. 23 for a discussion of this point.

²⁷ The weight of these weapons, [the Vickers weighed approximately 12 kilograms with the tripod being close to 22 kgs; the three inch mortar was a similar weight] and their ammunition, and the fact that they required at least two men to operate them, did militate against their use in mountainous terrain. As the Japanese were able to manhandle artillery pieces over the Track this argument loses much of its credibility.

²⁸ Sholl, ‘Points Noted and Lessons Learnt’, p. 23.

²⁹ See DVA, AAWFA, Lindsay Mason, 2/14th Bn, Archive No. 1197, Transcript, time: 5.24.00.00, ‘Then the Japs opened fire with their heavy machine guns. We dug in and believe it or not, within 12 hours there was not one stick standing...every bit of foliage was gone’. (Technically the Type 1 ‘Juki’ MG was a MMG, while the scaled up 7.7mm Type 92 ‘Woodpecker’ was classified as a HMG.)

³⁰ CAL, *Tropical Warfare* (Aust), Pamphlet No. 1, Melbourne: Aust Military Forces, 1944, p. 21.

jungle warfare this type of instinctive or 'reactive' response would be common.³¹ It would have a detrimental impact throughout the campaign.

The decision to dispense with the majority of their support weapons also illuminates an ongoing problem with the army and its adaptation to jungle warfare – inconsistency. On the one hand LHQ, and many officers, argued that little change was required to adequately meet the challenges of operating in the tropics.³² This can be evidenced by the minimal changes which occurred during and after the three-month training period of the 7th Division in Queensland. On the other hand, dramatic and telling changes occurred prior to combat, in this case because of the belief that support weapons would either be too difficult to transport, or of little value if taken into combat. This belief does not appear to have been based upon any definitive evidence or prior jungle warfare experience, rather upon pre-determined judgements by officers who would not actually be at the frontline.

Due to the difficulties of transportation, and a lack of native carriers, the need to reduce the weight that the units would be carrying was clear and, as discussed above, played some part in the decision to leave the majority of their support weapons behind.³³ Notwithstanding these reductions, long before the AIF battalions joined combat with the Japanese the punishing loads they were forced to carry had begun to take their toll as Sims stated:

[With] everyone having to cart seven days' rations on them plus all the ammunition and in some cases it was a total weight of well over sixty to sixty-five pounds per man and in that sort of terrain that's a killer.³⁴

The mountainous terrain and extreme climatic conditions of the South West Pacific islands would force major logistical changes upon the Australian Army, at the

³¹ As Sholl has argued, the development of an Australian jungle warfare tactical doctrine can be roughly segmented into three, 'the reactive, the adaptive and the developmental'. See Sholl, 'Points Noted and Lessons Learnt', p. 32. Until after the retreat to Imita Ridge, the Australia responses to the Japanese and the jungle can be placed in the 'reactive' category.

³² This view would still be the norm after the Papuan Campaign was completed in February 1943. See, for example AWM54, 577/7/29 Pt. 16, 'Notes on New Guinea Fighting' by Lt-Col Cameron, 3rd Battalion and AWM54, 937/3/33, 'Vasey to Adv LHQ (DMT)', 13 March 1943. (Chapter six will examine the extent to which change was necessary for the army to more effectively operate in the jungle.)

³³ If, as discussed earlier, the Japanese air raid on Seven Mile Drome had not been so effective, and if thought had been given to the problems of re-supply in the jungle, the troops would not have had to carry so much, or to discard what they felt simply could not be carried.

³⁴ AWM, KMSA, Charles Sims, 2/27th Bn, S789, Tape 2, side A 5-10 minutes.

strategic, operational and tactical level.³⁵ The extraordinary difficulty in supplying ammunition, food and medicine to the men at the frontline was in marked contrast to the experiences of the 2nd AIF in the Middle East and Mediterranean theatres. As Sholl has stated:

The desert offered few impediments to movement...even if the infantry soldier had to mount attacks over very rough country, as in Syria, his lines of supply were somewhat smoother and far more assured. In New Guinea there was no such certainty of supply.³⁶

With the destruction of many of the transport planes at Seven Mile Drome, and the high rate of wastage of those supplies that were air dropped at various points along the Track, the issue of supply would be one of the most important to all commanders throughout the campaign.³⁷ To an extent, the only supplies a man could rely upon were those he, and his comrades, carried to the battlefield upon their backs. As such men were weighed down far more heavily in the Pacific campaigns than they had been in the more mechanized battlefields of the Middle East.³⁸ The excessive weight combined with the torturous terrain would soon see men discarding equipment along the track as they began to climb.³⁹

At Itiki bayonets were sharpened and weapons stripped and cleaned, bootmakers were found to nail strips of leather to the soles of boots to increase grip in the muddy conditions, while loads were lightened by cutting many items in half, including blankets, mess tins and even toothbrushes.⁴⁰ In several cases though, these reductions in weight were only temporary. Whilst watching the 2/14th Battalion preparations, the

³⁵ The strategic and operational logistics implications and changes brought about by the onerous terrain and climate of the SWPA are dealt with in detail in the aforementioned PhD and Masters theses by Moremon and Zwillenberg. As such, only the changes that directly impacted upon the men at the front and how those changes forced them to fight differently to the Middle East – the tactical implications – will be elaborated upon in this thesis.

³⁶ Sholl, 'Points Noted and Lessons Learnt', pp.70-1. See also, McCarthy, *South-West Pacific Area First Year*, p. 335.

³⁷ The higher-level problems of logistics and supply, and the ongoing acrimonious telegram exchanges between Potts, Rowell, Allen, Blamey and MacArthur will not be covered in this thesis. Numerous published works can be examined which detail the controversy. See, for example Braga, *Kokoda Commander*; Brune, *Those Ragged Bloody Heroes*; Horner, *Crisis of Command*; McCarthy, *South-West Pacific First Year* and Rowell, *Full Circle*.

³⁸ See especially Johnston, *At the Frontline*, pp.6-9, for discussion of the various weights carried by Australian troops in campaigns during the Second World War. Johnston makes the point that, while Australian troops in the Middle East also carried heavy loads, the distances and terrain over which they were carried were considerably easier than in the SWPA.

³⁹ DVA, AAWFA, Mason, 2/14th Bn, Archive No. 1197, Transcript, time: 6.11.00.00.

⁴⁰ AWM52, 8/3/27, 18-19 August 1942; Russell, *The Second Fourteenth Battalion*, p. 121; Uren, *A Thousand Men at War*, p. 117; Laffin, *Forever Forward*, p. 88.

Australian war correspondent Osmar White noticed a ‘corporal pleading for two more Mills grenades and one tin less bully beef. “All the chaps feel the way I do sir,” he said earnestly’.⁴¹ White would later discuss the loads that the men were expected to carry over the appalling New Guinea countryside in greater detail. Whether sensible or not, the extra ammunition that many infantrymen insisted on carrying would not be wasted.⁴²

Preparations continued and last minute supplies were issued. Several hundred American-style knee-length gaiters were issued to the 2/16th and 2/27th battalions, providing greater protection from mud and leeches to approximately half the total force.⁴³ Route marches through the surrounding jungle were conducted to give the troops some sense of the terrain in which they would soon be operating.⁴⁴ An Australian New Guinea Administrative Unit [ANGAU] officer ‘demonstrated the more common native plant foods and methods of cooking them’.⁴⁵ The 2/27th Bn was issued with ten dogs ‘for use during ops’ along with a set of instructions on how they were to be employed in jungle warfare.⁴⁶ As no further reference to the dogs or their

⁴¹ AWM52, 8/3/14, ‘Extract from Daily Telegraph Sep 14 1942’. It is difficult to argue that the occurrence that White witnessed had anything to do with the jungle conditions the unit was about to face, as soldiers routinely take more ammunition into battle than is proscribed in their units’ war establishment. If it is a choice between food and ammunition, the vast majority of soldiers would choose ammunition. At this stage none of the troops knew of the dire supply situation along the Kokoda Trail so it is also difficult to argue that these soldiers were preparing with that thought in mind. As the following footnote discusses, however, some of their commanders seem to have known.

⁴² In fact, if the account in Brune’s *Those Ragged Bloody Heroes* is to be accepted, many of the men did not have a choice in carrying extra ammunition. Captain Ken Murdoch of the 2/16th Battalion stated that because of Brigadier Potts’ worries about the supply situation, ‘every man was asked to carry an extra bandolier of 50 rounds’. There is no mention of this in the 2/16th Bn or 21st Bde War Diaries, so the interview Brune conducted with Murdoch is the only evidence. (Brune, *Those Ragged Bloody Heroes*, pp. 92-3.) Exactly how much ammunition soldiers carried in the early jungle campaigns is difficult to determine. The 2/16th Bn unit history states that each rifleman carried 50 rds of .303 ammunition and one grenade, while the 2/27th, who followed several days later, state that each man carried 100 rds of .303 or .45 ammunition, and three grenades. See, Uren, *A Thousand Men at War*, p. 118; Burns, *The Brown and Blue Diamond at War*, p. 109 & AWM52, 8/3/16, 16 Aug 42, ‘50 rds per man’. *Tropical Warfare* 1945, Part II, p. 24 states that a rifleman should carry 100 rds of .303 ammunition and two grenades, while a soldier armed with a SMG should have six magazines and two grenades.

⁴³ AWM52, 8/3/16, 16 August and 8/3/27, 23-24 August 1942, ‘415 prs of gaiters (American type) received and issued to tps’.

⁴⁴ AWM52, 8/3/16, 14-15 August 1942.

⁴⁵ Russell, *The Second Fourteenth Battalion*, p. 122. For those members of the 2/14th who were later separated from the battalion and had to make their own way back, these lessons would prove to be invaluable.

⁴⁶ AWM52, 8/3/27, ‘Dogs For Use During Ops’ 28 August 1942. This is a copy of a memo confirming an earlier order from 7 Division HQ.

supplied 'kennels, mousetraps and leads' is to be found, it must be assumed that, notwithstanding 7th Division's order, they were not taken forward of Itiki.⁴⁷

Experimentation continued, even as the units marched up the track. For example, it was soon determined that a long walking staff was necessary to provide additional balance on the slippery terrain.⁴⁸ One adaptation that would become imperative in all later jungle campaigns had not occurred at this stage. As Thompson noted, 'up in New Guinea, we didn't have any tools to dig trenches and we had to dig them with bayonets and steel helmets. That's not easy'.⁴⁹ A report written at the end of the Kokoda and Beachhead campaigns would state that 'some kind of light digging tool is essential where time counts' and that scrounged 'American or Japanese tools were carried'.⁵⁰

While the men were preparing themselves, their commanders were also desperately struggling to come to terms with the new operational theatre as well as the environment. One of the greatest concerns was the lack of maps, with the first Survey Staff Officer only being appointed to New Guinea Force Headquarters days before the 21st Brigade arrived.⁵¹ A week after their arrival in Port Moresby, 7 Division HQ noted despairingly that:

Owing to acute shortage of maps of New Guinea, it was found impossible to issue units of 7 Aust Div with even one complete set. No copies of Port Moresby sheet, on which all our ops are based, are obtainable.⁵²

On 16 August an ANGAU officer, who had recently returned from Kokoda, briefed 21st Brigade officers on the terrain in the area but 'otherwise our knowledge was limited to infm gleaned from the study of a single air photo and a track report map

⁴⁷ Ibid. US – and to an extent, Australian Army – units would employ dogs during the Vietnam War in jungle warfare, but little use appears to have been made of them by the Australian Army during the Second World War.

⁴⁸ Russell, *The Second Fourteenth Battalion*, p. 125.

⁴⁹ DVA, AAWFA, Robert Thompson, 2/14th Bn, Archive No. 1594, Time: 3.36.30.00.

⁵⁰ AWM54, 581/7/19 'Notes on and lessons from recent operations in Gona Sanananda areas', By Lieutenant Colonel R Honner Comd 39 Australian Infantry Battalion, p. 2. Another discussion on the lack of suitable digging implements for frontline troops is found in AWM54, 581/7/13, 'Report on Operations in Sanananda Area' By Lieut-Col Kessels, 30th Australian Infantry Brigade, Dec 1942 to Jan 1943, p. 5.

⁵¹ Lawrence Fitzgerald, *Lebanon to Labuan: A Story of Mapping by the Australian Survey Corps World War II (1939-1945)*, Melbourne: J. G. Holmes, 1980, p. 68.

⁵² AWM52, 1/5/14, 19 August 1942.

graph which subsequently proved extremely inaccurate'.⁵³ With the Pacific War more than eight months old, and General Morris having been based in Port Moresby for more than six months, the inability to supply the newly arrived troops with maps is inexplicable.

This lack of preparation for the conditions at hand extended to all aspects. As noted by the Australian war correspondent, Osmar White, he:

[c] ould not help noticing that their packs weighed 65 pounds, although they believed their personal equipment was cut to the minimum; that they were half naked when they should have been covered; that their uniforms were the color of desert dust and not the color of green jungle; that their webbing shone white from long bleaching in the desert suns.⁵⁴

This was not the first time White had commented about the inappropriateness of the Australian khaki uniforms for jungle conditions. While they had been with the 2/5th Independent Company and the New Guinea Volunteer Rifles operating from Wau in July 1942, both White and cameraman Damien Parer had 'observed Kanga Force dyeing their uniforms in coffee grounds to darken them'.⁵⁵ This was only a temporary solution, however, as the coffee grounds accelerated the disintegration of their uniforms. A Kanga Force report, written at the time of White and Parer's visit, unequivocally argued for changes to the standard issue Australian Army uniform:

It has been found that khaki clothing is too easily seen against the dark green jungle background. Clothing and equipment has been dyed dark green, but it is recommended that in future units destined for jungle warfare be issued initially with dark green clothing.⁵⁶

⁵³ AWM52, 8/2/21, 16 August 1942. See also AWM, KMSA, Jack Reddin, 2/27th Bn, Archive No. S790, Tape 2, side B, 5 minutes: 'We didn't have any good maps. The maps we had been using were simply, well, they were nothing'; also Russell, *The Second Fourteenth Battalion*, p. 122 and Burns, *The Brown and Blue Diamond at War*, 'the only maps available were totally useless and proved inaccurate', p. 108.

⁵⁴ White, *Green Armour*, p. 181. Most troops would carry between 50 and 70 lbs [23-33 kgs] but additional grenades, ammunition and a steel helmet would, of course, increase the total. Others who noticed that the 21st Brigade were not properly clothed or equipped for the jungle conditions as they set off were General Rowell and his ADC Lt Darling. See the quote by Darling in McDonald, *Damien Parer's War*, p. 206, 'They were in their Middle East uniforms – Khaki and shorts...we were uneasy seeing them walk off with their bare knees knowing what mosquitoes and leeches were like, let alone the wet they would experience every night'.

⁵⁵ McDonald, *Damien Parer's War*, p. 214.

⁵⁶ AWM54, 905/1/3, Kanga Force Headquarters: 'Recommendations Re equipment used in jungle warfare'. P. 1. July 1942. (It is impossible to ascertain what action, if any, occurred due to this report, although copies of it made their way – at some stage – to HQ 7 Division, as can be seen from the coversheet of this document.)

Although White and Fleay – Kanga Force commander – had clearly identified the problem with khaki uniforms, no official changes had occurred by the time 21st Bde was deployed. In the days before they set off up the Golden Staircase, vain last minute attempts were made by 21st Brigade to dye their khaki uniforms dark green using, in one instance a plant extract, and in another, dyes from Australia.⁵⁷ Several weeks earlier, at Milne Bay, the militia units had also experimented with dyes, in an effort to produce effective camouflage. They were similarly unsuccessful. Worse, the dye greatly exacerbated skin complaints and soon as many as 80 percent of the men of the 61st Battalion had severe dermatitis or eczema, which was already a problem in tropical climates.⁵⁸ As a consequence the 21st Brigade, like the 18th Brigade shortly to arrive at Milne Bay, for the most part went into battle in their khaki uniforms.

It would be late August before the first supplies of roughly dyed green uniforms were issued to some men of the 2/14th Battalion.⁵⁹ The majority of the 21st Brigade therefore ‘went into that action with desert clothing on’ and would not be issued with properly camouflaged uniforms until after they were withdrawn from combat in September and October.⁶⁰ Soon the dangers of non-camouflaged uniforms in the jungle would become starkly evident, but unfortunately it would take the deaths of dozens of men before this lesson would bring about official change. Such change that had been clearly identified as necessary more than twelve months earlier, in Malaya and Timor.⁶¹ Once again the intransigence and unwillingness of the army to adapt to new and very different circumstances was seen in an unfavourable light. The units on the ground – not higher authority – would provide the impetus for change at the tactical level. This would be equally true of the operations at Milne Bay as at Kokoda.

⁵⁷ Russell, *The Second Fourteenth Battalion*, p. 122-3 and DVA, AAWFA, Baldwin, 2/27th Bn, time: 5.35.00.30: ‘I recall they brought up some dye from Australia and put it in forty four gallon drums and we dunked our shirts and shorts into the dye and then put it back on again. With the first decent downpour of rain the lot would almost wash out again back to the khaki or worse’.

⁵⁸ Baker & Knight, *Milne Bay 1942*, p. 70.

⁵⁹ AWM52, 8/3/14, 24 August 1942.

⁶⁰ AWM, KMSA, Harry Katekar, 2/27th Bn, S903, Tape 2, 5-10 minutes; and DVA, AAWFA, Frank Patterson, 7th Division Signals, Archive No. 0193, Transcript, time. 4.04.30.00: ‘The same clothing we had had in the Middle East, which was plain khaki not this stuff with the camouflage on it. So that when you are up there [New Guinea] you sort of lit up a bit you know, easily to be seen’.

⁶¹ See chapter two, pp. 73-4.

'A malarial pest-hole': The 18th Brigade at Milne Bay

Between 12 and 17 August the 18th Brigade disembarked at Gili Gili wharf, Milne Bay. Unlike the 21st Brigade they would not have to face the backbreaking struggle up the mountain ranges towards Kokoda. The torrential rain, calf deep mud and waves of malaria carrying mosquitoes, however, made Milne Bay if anything more unpleasant. Having fought in defence of the desert bastion, Tobruk, alongside the 9th Division, their new theatre of operations could not have been more dissimilar. The new arrivals – in an echo of the 21st Brigade's experiences at Port Moresby – discovered that the army:

Knew absolutely nothing about that end of New Guinea... So I sent out patrols and I took out a patrol myself and we were just having a look around to see what the hell was in the place. There were no maps, just what we learned ourselves. I have a map there that they eventually gave us, but the first map they gave us showed Gili Gili wharf and the mission further east and written across the middle was "little known of this area". Unbelievable.⁶²

Nor were the 18th Brigade any better prepared than the 21st in terms of their uniforms and equipment.⁶³ With regard to malaria protection – in one of the most malarious regions in Papua – they were ironically worse off, as were the militia and US Army Engineer units working to construct the runways. Advice on the surrounding topography was forthcoming from the 7th Brigade who had been stationed at Milne Bay for approximately a month.⁶⁴ Those preliminary reconnaissances confirmed the initial impressions from the boats. The enemy at Milne Bay would be the terrain and climate, far more so than the Japanese. All who served there would agree with Rickards:

There is no doubt about it, this place takes the bun! What with malaria, typhus, bombs, mosquitoes, rain, scorpions, leeches, multitudes of insects, rats and falling coconuts...this place is on its own.⁶⁵

When they were not constructing their primitive camp areas, assisting the engineers with road and bridge works, or unloading ships at the wharf, the newly arrived AIF battalions were patrolling in an attempt to fill in the gaps in their largely blank

⁶² DVA, AAWFA, Angus Suthers, 2/12th Bn, Archive No. 0399, time: 5.34.30.00.

⁶³ Ibid, 6.05.00.20.

⁶⁴ McCarthy, *South-West Pacific Area*, p. 121. See also Spencer, *In the Footsteps of Ghosts*, p. 95, for discussions with militia battalions on the surrounding area.

⁶⁵ DGM Rickards, 'Eighty two years of Life's Recollections', unpublished memoirs, 2001, Battalion Military Archive, Brisbane, Qld; quoted in Gordon Dickens, *Never Late: The 2/9th Australian Infantry Battalion 1939-1945*, Loftus, NSW: Australian Military History Publications, 2005, p. 158.

maps.⁶⁶ Within two weeks they were in action in ‘conditions [that] were so different to what we’d been used to’.⁶⁷ The conditions were also ‘so different from the Jimna Ranges in Queensland’, their most recent training area.⁶⁸ As each battalion went into action, they were forced to learn quickly. Many of the men were killed or wounded before they were able to do so.

The 18th Brigade, as would the 21st Brigade on the Kokoda Track, soon discovered the first, and most important tactical difference between their previous combat experience and that which they now faced at Milne Bay. Visibility and observation were almost non-existent. Many of the veterans of Tobruk would have echoed the reaction of an 18th Bde Intelligence man on first sighting the jungles surrounding Milne Bay. He exclaimed:

“Jesus Christ! I can’t see anything”. We were used to long views in the desert. I was conscious of this bloody jungle that closed in all around you and sort of enveloped you... You couldn’t see what was happening.⁶⁹

Once combat began, this reaction was, if anything, magnified. As Curtis stated:

You couldn’t get used to not seeing who was shooting at you because sometimes you’d be within six or eight feet of a person...and you couldn’t see whose shooting at you in the thick scrub.⁷⁰

The almost impenetrable jungle meant that ‘you didn’t see the Japs’ before they opened fire.⁷¹ This in turn made the rate of advance ‘painfully slow’, as it was ‘necessary to thoroughly comb the thick jungle on both sides of the track’.⁷² The reasons for this were two-fold, and learnt by the first unit to come into contact with the enemy. First, the Japanese placed snipers in the coconut palms, and second, they often shammed death and then shot the passing Australians if they failed to check the

⁶⁶ AWM52, 8/2/10, 17 August. See ‘Operational Instructions No. 2 Working Parties’ for detail of labouring work carried out. As discussed previously the practice of diverting frontline combat formations from their primary tasks – which in this instance should have been patrolling and practicing contact drills in the new terrain – militated against them being fully prepared when the Japanese attacked. See also, Dickens, *Never Late*, p. 161.

⁶⁷ AWM, KMSA, Archive No. S529, Paul Hope, 2/12th Bn, p. 67.

⁶⁸ Spencer, *In the Footsteps of Ghosts*, p. 95.

⁶⁹ Baker & Knight, *Milne Bay 1942*, p. 89.

⁷⁰ AWM, KMSA, Owen Curtis, 2/12th Bn, Archive No. S541, p. 67. When they joined the fighting on the Kokoda Track in October, the 2/2nd Bn, like all units new to jungle warfare, would have the same experiences. See Wick, *Purple Over Green*, pp. 224-5.

⁷¹ DVA, AAWFA, Neil Russell, 2/12th Bn, Archive No. 0692, Transcript, time: 6.14.30.00.

⁷² Dickens, *Never Late*, p. 168.

apparently dead enemy lying around the jungle.⁷³ When the 2/9th replaced the 2/12th, ‘they warned us to watch the trees and be careful’.⁷⁴ Soon a technique was developed to deal with the treetop snipers. As a 2/9th Bn corporal explained – in creating their firing positions, ‘the fronds cut by the Jap often fell to the base of the palm and were easily seen’.⁷⁵ This telltale indication gave advance warning, and shots were fired into the crown of each tree to bring the snipers crashing to the jungle floor.⁷⁶

Lessons were clearly being recorded and passed on almost instantly, through both informal and formal channels. On the day the 2/12th first engaged the Japanese ‘we were given the orders to make sure that we weren’t to pass any Jap on the ground without making sure he was dead’.⁷⁷ Initially this measure was taken because the Japanese were simulating death and the order was clearly ‘repugnant to the men’.⁷⁸ Once the AIF troops discovered the mutilated bodies of Papuan civilians and militia troops, fury overcame self-preservation as the dominant motivator.⁷⁹ The knowledge of the Japanese barbarity, combined with the ‘severe psychological by-products of close-fighting jungle warfare’ arguably led to the situation in which no quarter was asked, nor given.⁸⁰

Within the first few days other lessons were learnt, and with them the necessity to change methods and tactics that had become second nature in the desert. As nightfall

⁷³ Brune, *A Bastard of a Place*, p. 380. ‘The soldiers of the 2/9th were fast learners. They quickly noticed that a number of their casualties had gunshot wounds where the point of entry was higher on the body than the point of exit. This obviously indicated sniper fire from the tree-tops.’

⁷⁴ DVA, AAWFA, Harvey Wockner, 2/9th Bn, Archive No. 1028, Transcript, time: 5.32.00.20.

⁷⁵ Baker & Knight, *Milne Bay 1942*, p. 220.

⁷⁶ Baker & Knight claim that only rifles were used for this task as the Bren LMG was too heavy. This is debateable as at Buna Bren guns were used for this task. Several photos taken by George Silk demonstrate their use. See Neil McDonald and Peter Brune, *200 Shots: Damien Parer and George Silk with the Australians at War in New Guinea*, Crows Nest, NSW: Allen & Unwin, 2004, pp. 128-9. It is possible that the 18th Bde, building on their experience of Milne Bay, had, by Buna decided that automatic fire was more appropriate than the bolt-action Lee Enfield.

⁷⁷ AWM, KMSA, Geoffrey Holmes, 2/12th Bn, Archive No. S540, p. 54. Holmes, and others, therefore shot or bayoneted every Japanese they found.

⁷⁸ Dickens, *Never Late*, p. 165.

⁷⁹ Numerous accounts of the Japanese atrocities at Milne Bay exist. The majority of the men of the 18th Brigade interviewed by the DVA or AWM state that their willingness to shoot the injured and dead – or supposedly dead – Japanese soldiers can be traced to the evidence of the brutality of their adversaries. For a selection of accounts see Brune, *The Spell Broken*, pp.115-6; Graeme-Evans, *Of Storms and Rainbows*, p. 116; McCarthy, *South-West Pacific Area*, p. 178; Spencer, *In the Footsteps of Ghosts*, pp. 107-8 and AWM, KMSA, Paul Hope, 2/12th Bn, Archive No. S529, p. 74.

⁸⁰ Brune, *The Spell Broken*, pp. 115-6. See also Graeme-Evans, *Of Storms and Rainbows*, p. 155, for the comment in a letter home by a Sgt Andrews that the order had been given ‘no surrender, no prisoners’.

approached the battalions adopted their standard defensive positions, which entailed the positioning of Listening Posts [LPs] a certain distance from the perimeter to warn the main body of the approach of the enemy. In the desert, and other theatres, this tactic was standard and almost invariably worked. When the 2/12th utilised the same tactic in the jungles of Milne Bay one of their LPs, placed less than 80 metres away from the unit's perimeter, was overrun and the soldiers manning it killed. As Howell said:

That's the first mistake we ever made. We were still back in the desert. We put blokes out in the front of us, just out in the jungle the other side of the road as a listening post for Japs, and we couldn't get them back. The Japs got them.⁸¹

The 18th Brigade after action report would reiterate the dangers of LPs, demonstrating that lessons learnt in action were being rapidly incorporated into training notes and eventually manuals:

Owing to their vulnerability it is suggested that Listening Posts should not be left outside perimeter camps. It is considered that in the extreme darkness of the jungle simple booby traps made from 36 grenades are equally effective.⁸²

Within a day or two all units had adopted another measure to counter the Japanese. As they prepared to create a night defensive position they would 'completely fell all trees etc., in an area big enough for us to lie within touching distance of each other'.⁸³ When the Japanese attempted to approach the position at night they would therefore not have the benefit of thick jungle foliage to shield their movements. While the clearing of the jungle around their position was common sense, both this measure, and the change to night defensive positions discussed above were definite alterations to accepted practice in their previous campaigns. Another significant difference between the two theatres was the vastly reduced size of those night defensive positions, in comparison to a company or battalion defensive position in the desert. As Curtis stated, in the desert to 'concentrate a lot of men in one little concentrated area...it would be absolutely fatal in open warfare to have done that'.⁸⁴ With visibility greatly reduced, it was now imperative that defensive positions be reduced in size so that a

⁸¹ DVA, AAWFA, Charles Howell, 2/12th Bn, Archive No. 1606, Transcript, time: 7.28.30.00.

⁸² AWM52, 8/2/18, 'Points Noted and Lessons Learnt in Recent Ops' 16 Sept 42, p. 3.

⁸³ Baker & Knight, *Milne Bay 1942*, p. 256.

⁸⁴ AWM, KMSA, Archive No. S541, Owen Curtis, 2/12th Bn, p.67.

commander could, ideally, have visual observation of his whole command, and also to prevent Japanese infiltration.

At times during the Milne Bay operations some of the AIF soldiers began to realise that the jungle could be an ally, not only a strange and intimidating environment that aided the enemy. A lookout of the 2/12th Battalion, which had taken up a night defensive position, noticed a large formation of Japanese approaching. As Hope recounted:

Everybody was as quiet as a mouse. And the Japs come up, not suspecting anything, their rifles slung over their shoulders... when they reached the river which they had to ford they sort of bunch up... no order was given to fire, but everybody had...drawn a bead on them and they just poured fire into that mob of Japs who were so close they couldn't miss.⁸⁵

For some men of the militia units, whose views had not been influenced by combat in North Africa, a similar understanding had been arrived at:

I prefer the jungle as a battle ground as it is much more personal and by honing your own and [your] soldier's skills, you meet the enemy on your own terms and are not subject to long distance and unseen attack.⁸⁶

To the vast majority of the 18th Brigade, however, the jungle was a dark, foreboding place that hid unseen numbers of Japanese who could open fire at pointblank range at any moment. Much more familiarity with the conditions would be necessary before they were comfortable with their new surroundings.

With growing experience, lessons continued to be accumulated, but in combat as opposed to training, the price was paid in men's lives. One of the major differences noticed in jungle warfare was the severity of the wounds and the ratio of killed to wounded. As Walker noted 'enemy bombs and machine-guns at close range produced the most serious injury'.⁸⁷ The 2/12th Bn, during its time in combat at Milne Bay suffered 39 killed and 44 wounded.⁸⁸ Similarly, the 16th Brigade advancing over the Kokoda Trail would calculate that one man was killed for every two wounded.⁸⁹ This ratio was extraordinarily high; in 'normal' combat operations, one man was killed for

⁸⁵ AWM, KMSA, Paul Hope, 2/12th Bn, Archive No. S529, p. 72.

⁸⁶ Baker & Knight, *Milne Bay 1942*, p. 38. This quote is from Captain Mal Just of the 25th Battalion.

⁸⁷ Allan S. Walker, *The Island Campaigns, Australia in the War of 1939-1945, Series Five: Medical, Vol. III*, Canberra: Australian War Memorial, 1957, p. 56.

⁸⁸ Graeme-Evans, *Of Storms and Rainbows*, p. 172.

⁸⁹ McCarthy, *South-West Pacific Area*, p. 306.

every three or four wounded.⁹⁰ With ambushes and firefights occurring with the protagonists' only yards, and at times, feet apart, the severity of gunshot wounds in particular was increased drastically.

The difficulty of evacuation of the wounded back to a Regimental Aid Post (RAP) and thence to an Advanced Dressing Station (ADS) was also increased markedly in the jungle. With few roads, field ambulance units were forced to rely on stretcher-bearers to a greater extent than had been the case previously.⁹¹ This naturally took longer, partially explaining the increased mortality rate in the tropics. The multitude of diseases found in Papua and New Guinea also exacerbated the death rate, as men who were weakened by their wounds had little natural defence against dysentery, malaria or scrub typhus. In combat it proved virtually impossible for men to use their mosquito nets – if they have been issued with them – thus ensuring that almost every man became infected.⁹² Reports compiled after the Beachhead battles would admit that 'the Campaign presented many medical problems which had not been visualised nor experienced' and as such 'solutions were improvised'.⁹³ Once disseminated, and their recommendations accepted, these reports would result in changes that would see a better survival rate for the frontline soldier.⁹⁴

As the AIF battalions continued to advance along the narrow coastal strip bounded by the sea on the south and the mountains to the north, Russell recalled that the terrain forced further modifications to their past operating procedures:

There were tracks leading from the coastal route into the jungle at intervals and it was an unnerving experience for our troops to patrol 200 yards up these tracks in search of the enemy, with the expectation of the unseen Japanese suddenly opening fire.⁹⁵

⁹⁰ Crooks, *The Foolsoldiers*, p. 124, lists the casualty figures for the 7th Division Syrian Campaign. They were 416 KIA and 1136 WIA. Even these figures were higher than the norm, signifying the severity of the combat.

⁹¹ AWM54, 'Report on 10th Australian Field Ambulance – Buna Campaign – December 1942 – February 1943'. As it spent most of its time at Popondetta, this unit was able to rely upon jeeps to a certain extent, but native and service personnel were needed in great numbers as stretcher-bearers.

⁹² DVA, AAWFA, Frederick Williams, 2/2nd Bn, Archive No. 0780, time: 7.25.30.00.

⁹³ AWM52, 1/5/14, Appendix in January 1943 WD, 'Medical Service 7 Aust Div During Papuan Campaign'. The ADMS of 7 Div F. Kingsley Norris had compiled this 43-page report.

⁹⁴ See for example, AWM54, 'Field Ambulance Notes, Jungle Warfare, by Col G. B. G. Maitland', May 1943. This 50-page report covered all aspects of the role of a field ambulance unit in jungle warfare. It would be widely disseminated.

⁹⁵ Graeme-Evans, *Of Storms and Rainbows*, p. 111.

Fire lanes, that were almost impossible to see, had been cut diagonally into the jungle at ankle height, leading off the track. As the 2/12th Battalion's CO recorded:

Ambush parties of 3 to 14, were located in small lanes cut in the jungle at right angles to the road, from where they engaged our tps from under cover.⁹⁶

It took experience of jungle conditions – and Japanese methods – to locate evidence of these fire lanes. The 18th Brigade lacked such experience. By mid-December, when the 18th Brigade were transported to Buna, the lessons of Milne Bay had been inculcated throughout the battalions.⁹⁷ Replacements for those men killed or wounded in the fighting were trained to recognise the telltale signs of Japanese forces.⁹⁸ Upon their return to Australia in February 1943, the brigades of the 6th and 7th Division who had pioneered jungle warfare learning in these early campaigns would construct assault courses based upon their experiences.⁹⁹ The Atherton Tablelands would eventually be dotted with training camps, housing the AIF divisions and many militia units, as well as US formations. Infantry battalions in particular would be able to train in climate and terrain closely replicating Papua and New Guinea, without the disease problems of the islands.¹⁰⁰ Once Canungra was established, assault courses would demonstrate tree snipers, fire lanes and other types of Japanese defences, enabling soldiers in future to, hopefully, identify them and therefore reduce casualties.¹⁰¹ After they had successfully passed through Canungra, individual soldiers would be posted to their units, who would ideally be training on the Atherton Tablelands. They would then be quickly integrated into that unit and train with the men they would soon deploy with.

Before any of this could occur, however, the majority of 7 Division's learning would occur in combat, either at Milne Bay, or later at the Beachheads. Although no large-

⁹⁶ AWM52, 8/3/12, CO's Report and Comment on Month, 31 August 1942.

⁹⁷ See Dickens, *Never Late*, p. 198, for lessons on ensuring that all enemy are dead before advancing; and Graeme-Evans, *Of Storms and Rainbows*, p. 213, for lessons on the need for anti-malarial protection.

⁹⁸ Spencer, *In the Footsteps of Ghosts*, p. 111.

⁹⁹ AWM52, 8/3/25, 17 May 1943. Ravenshoe. 'Training on Jungle Assault course, No. 2 Training Area commenced'. This will be discussed in greater detail in chapter six.

¹⁰⁰ McCarthy, *South-West Pacific Area*, p. 449. In September and October 1942 Blamey and Berryman had discussed using areas in the Atherton Tablelands 'for use as a large-scale training area'.

¹⁰¹ 3DRL/6599, Papers of Lt-Col P. D. S. Starr, 'Aust Trg Centre (Jungle Warfare) Canungra, Trg Syllabus Precs & Instructions'. See especially Serial 10 'Observation Training', Serial 19 'Jap Ruses', Serial 34 'Jap Tactics' and page 2 'Battle Course – Wasp Creek, Serial 3 – Demo, Battle Drill for Jungle Tracks'.

scale resistance was encountered at Milne Bay, each of these tactics – tree snipers and fire-lanes – caused delay and kept the Australians constantly on edge, never knowing when or from what direction a burst of fire would ring out. In October 1942, following the attack on Japanese positions on Goodenough Island, Colonel Arnold of the 2/12th would report that:

Up to this stage it was quite impossible in view of the jungle to locate the area from whence the Jap fire came, let alone pin-point his weapon pits. It was this inability to discover the firers that took the sting out of the attack.¹⁰²

During the Milne Bay fighting, the use of support weapons, either the units' own mortars, or the 2/5th Fd Regt Battery of 25-pounders, was therefore difficult. The combination of action occurring at extremely close range – meaning that mortar or artillery fire would endanger friendly as well as enemy forces – and the lack of observation necessary to accurately direct that support fire posed previously unknown problems. As Jones recalled, 'it was all right in the desert firing mortars and so on because you had a target to fire at'.¹⁰³ The thick jungle and torrential rain meant it was 'necessary to modify normal air and arty methods for support of the inf in the jungle'.¹⁰⁴ For the majority of this battle – like the Kokoda campaign, and the Beachhead battles to follow – the units on the ground would be forced by a process of trial and error to develop solutions to the previously unforeseen problems of jungle warfare. This was true of all the combat arms. While they would struggle to be allowed to prove their worth in jungle warfare, the artillery were also working on solutions to the problems of mobility and observation in jungle.

'Difficulty of ranging in jungle country': The challenges of employing Artillery

As discussed in the previous chapters the effective utilisation of artillery in jungle conditions was a vexed issue. By the time the infantry had been deployed to Papua it was no closer to resolution. An advance party of the 2/3rd Australian Field Regiment returned from Milne Bay on 1 August 1942, but their report on the difficulties of establishing observation posts and gun positions appeared to confirm the belief that

¹⁰² AWM52, 8/3/12, Appx G, 'Report on Operations Goodenough Island, 22nd to 26th October 42'.

¹⁰³ DVA, AAWFA, Edmond Jones, 2/9th Bn, Archive No.1138, time: 4.13.30.00.

¹⁰⁴ Baker & Knight, *Milne Bay 1942*, p. 243.

artillery was of dubious worth in tropical jungle.¹⁰⁵ Notwithstanding this, and apparently confirming that the Army was responding erratically to the rapid approach of the Japanese, and the problems posed by the tropical terrain, 9 Battery of the 2/5th Australian Field Regiment was deployed ten days later to Milne Bay.¹⁰⁶ Like the infantry units it supported, ‘much of its equipment had been designed for almost any sort of warfare other than that in the jungle’.¹⁰⁷ Within two weeks they would be in action in support of the 7th and 18th Brigades. At the same time the 13th and 14th Field Artillery Regiments were stationed at Port Moresby. Their defensive tasks were to repel attackers, either from the sea or land.¹⁰⁸ In mid-September the 14th Fd Regiment would be the only artillery unit to fire in support of Australian operations on the Kokoda Track.¹⁰⁹

Having arrived at Milne Bay in mid-August, the first AIF artillery unit to see action in Papua was the 2/5th Field Artillery Regiment. The horrendous waterlogged conditions made the selection of suitable gun sites extremely difficult and the supply of ammunition to those positions an exhausting process.¹¹⁰ Anti-malarial measures were still inadequate and the 2/5th, like all units at Milne Bay, suffered more casualties from malaria, than from enemy action.¹¹¹ Although unable to provide much support during the initial Japanese attacks, in which two of their Forward Observation Officers (FOO) were killed, once the Australians regained the initiative, they supported the advance.¹¹² Improvisation, both at the gun positions, and in the field by the FOOs became the norm.

¹⁰⁵ AWM52, 4/2/3, 1 August 1942, and Bishop, *The Thunder of the Guns!*, p. 500 and 530. The 2/3rd Fd Regt would not see service in New Guinea until the 6th Division’s Aitape-Wewak campaign in late 1944.

¹⁰⁶ O’Brien, *Guns and Gunners*, p. 147.

¹⁰⁷ Ibid, p. 152.

¹⁰⁸ McCarthy, *South-West Pacific Area First Year*, p. 241.

¹⁰⁹ A single howitzer of the 1st Australian Mountain Battery RAA, AIF was flown to Kokoda and manhandled overland to support the Australian advance from Kokoda to Buna, but it did not fire in support of that advance. The, at times, knee-deep mud made the task of moving the gun an extremely difficult and painstakingly slow task. See AWM52, 4/9/1, Part I, Appx A, ‘Movement of one gun from Kokoda – Kakendetta’ 16 Nov – 24 Nov 1942.

¹¹⁰ O’Brien, *Guns and Gunners*, p. 152.

¹¹¹ Ibid, p.152. See also Walker, *The Island Campaigns*, pp. 47-49 and 108-119. The AIF units were recent arrivals and as such their malarial casualties began to occur after the fighting at Milne Bay had ceased. From October to December 1942 the majority of Milne Force fell victim to the disease. See, Sweeney, *Malaria Frontline*, p. 29 for further information.

¹¹² McCarthy, *South-West Pacific Area First Year*, p. 169.

As the 2/5th Fd Regiments historian recorded, ‘the new techniques of ranging by sound of burst and by splinter effect were now being evolved the hard way’.¹¹³ This tactic involved the FOO calling for artillery fire – often as close as thirty to fifty yards from his position – and determining from the subsequent explosions and sound of shell splinters whistling over his head, what adjustments he needed to make. These were then radioed back to the guns.¹¹⁴ With thick jungle reducing visibility to a minimum, and wholly inadequate maps, such hazardous tactics became commonplace in an attempt to provide support to the infantry.¹¹⁵ On several occasions a FOO and his signalman were forced to move so close to the enemy that they could hear their voices. As they were often on the foreshore the officer would call for an artillery round to be fired into the sea – so it could be easily seen, unlike rounds that fell in the jungle – and from the subsequent explosion adjust the artillery fire onto the unseen Japanese.¹¹⁶

Soon the Japanese retreat gathered pace, quickly outstripping the speed with which the artillery could be moved to support the advancing 18th Brigade’s infantry units. With the daily torrential rain having turned the roads into quagmires and the Japanese having retreated beyond the range of the 25 pounders, more improvisation became necessary. An anti-aircraft unit stationed nearby equipped with 3.7 inch guns provided a solution. With an effective range at least 7,000 yards greater than the 25 pounders, it was decided to employ them in the field artillery role. The anti-aircraft shells initially failed to explode but:

On experiment it was found that 117 and 119 fuses from 25 pdr shell fitted and on firing gave very effective bursts. These guns were later used in the field role when action went beyond the range of the 25 pdr on ranges up to about 20,000 yards.¹¹⁷

¹¹³ O’Brien, *Guns and Gunners*, p. 163.

¹¹⁴ AWM52, 8/2/18, ‘Report on Artillery Operations at Gili Gili Aug/Sep 42, p.1 ‘OPO [Observation Post Officers] suffered from poor observation and had generally to get right on top of the target and engage as a close target’.

¹¹⁵ Graeme-Evans quoted from Brigadier Field’s unpublished account of the Milne Bay action: ‘In the dense growth of the jungle artillery support of the company detachments was difficult and forward observation officers could do little at night except bring down fire on pre-determined areas such as lengths of track. Even for 3 inch mortars observation was difficult’. See Graeme-Evans, *Of Storms and Rainbows*, p. 84.

¹¹⁶ AWM 52, 8/2/18, ‘Report on Artillery Operations at Gili Gili Aug/Sep 42’, p.1 ‘Ranging in the sea was often resorted to and the use of ears for sound when rounds fell in jungle or plantation’. See also Baker & Knight, *Milne Bay 1942*, pp. 244-5 and, Horner, *The Gunners*, p. 339.

¹¹⁷ AWM52, 8/2/18, p. 1. Anti-aircraft shells used either a time fuse, set to explode after the shell reached a certain altitude, or later in the war, a proximity fuse that exploded once it passed close to an aircraft. Neither was therefore suitable when used in the field artillery role.

The new conditions saw other previously unheard of improvisations become almost routine. In at least one instance artillery fire was called down by an Observation Post Officer [OPO] standing neck deep in the sea so that he could observe the fall of shot 19,000 yards along the coast.¹¹⁸ While the tactic of using anti-aircraft guns in the field artillery role would not become standard, sound ranging certainly did.¹¹⁹ For the rest of the South West Pacific campaigns, Australian artillery units would employ these tactics, as observation of fire was rarely possible.¹²⁰ Each unit appears to have had to learn these lessons independently, some during combat, others later in training.¹²¹ This again highlights the irregular transmission of learning across and between units. Why this should be so is difficult to understand, as both during and after the early Papuan campaigns, numerous reports on the employment of artillery were forthcoming.¹²² All of these reports discussed methods of ranging artillery fire on to targets in jungle.¹²³ In fact, less than a week after the 18th Brigade's operations at Milne Bay a report based on their experiences was distributed. Included were several paragraphs on the use of artillery.¹²⁴

At the same time as the 2/5th Field Regiment was being forced to rapidly come to terms with operating in the new conditions, several artillery units were training and waiting to be deployed from Port Moresby. As mentioned earlier, the first of these to

¹¹⁸ O'Brien, *Guns and Gunners*, p. 164.

¹¹⁹ David Goodhart, *The History of the 2/7 Australian Field Regiment*, Adelaide: Rigby Ltd, 1952, p. 316. This unit served on Tarakan Island from May to August 1945 and regularly employed sound-ranging to adjust fire onto targets.

¹²⁰ See, for example, W. T. Lewis (ed), *Observation Post: Six Years of War With the 2/11th Australian Army Field Regiment*, W. Essendon: 2/11th Field Regiment Association, 1989, pp. 156-9. On these pages there is discussion of the difficulties of identifying and engaging targets on Bougainville, 1944-45 using sound ranging techniques.

¹²¹ As Cremor observed, 'The lessons learnt in this close shooting [during training at Kairi, Qld in December 1943] afterwards proved most valuable in the New Guinea Campaign'. Cremor, *Action Front*, p. 193.

¹²² One explanation is that during training in Australia safety rules would not have allowed a FOO to call artillery fire down while he huddled 30 to 50 yards away. This was well inside the minimum 'danger close' distance. As sound and splinter ranging required the observer to be extremely close to the fall of shot, it is likely that they were not able to accurately recreate battlefield conditions in training.

¹²³ See, for example AWM54, 581/6/9, 'Artillery Operations in Buna – Gona Area' by Brig L. E. S. Barker, 31 Jan 1943, pp. 9-11, especially the paragraphs on 'Engagement of Targets' and 'Proximity Shooting'; AWM54, 75/4/18, 'Artillery in Jungle Warfare – Notes compiled from reports, from Pacific War Zone, 1943', pp. 2 'Observation', 3 'Ranging' and 7 'Summary'; and AWM54, 937/3/7, 'Notes on New Guinea Campaign' p. 2. This very detailed 30-page report, compiled by two company commanders of the 2/2nd Battalion, would by February 1943 be widely circulated by LHQ.

¹²⁴ AWM52, 8/2/18, 'Points Noted and Lessons Learnt in Recent Ops' HQ 18 Aust Inf Bde, p. 4.

see action was the 14th Field Regiment, which manhandled a single gun with extreme difficulty forward of Ower's Corner.¹²⁵ After practicing dismantling the gun and carrying it in sections forward, it took a week to move it three kilometres and into a position from which fire could be brought to bear on the Japanese.¹²⁶ As more than 100 men of four different units were necessary to accomplish this task, using block and tackle, the doubts surrounding the suitability of artillery in this terrain were brought into stark relief.¹²⁷ The report written by the Battery Commander [BC] after the operation was, however, more confident that lessons learnt would be valuable for future units.¹²⁸ Only weeks after their return to Port Moresby the unit, in conjunction with the two AIF Field Artillery regiments who had recently arrived, had developed a rapid drill for breaking the gun down into its constituent parts and a handcart to carry the disassembled gun over jungle terrain.¹²⁹ The drill would prove useful but the handcarts would never see action.¹³⁰

After the Japanese retreat moved them out of the range of the solitary 25 pounder forward of Ower's Corner, the artillery units 'languished' in Port Moresby for two months.¹³¹ Much experimentation was, however, being undertaken while the units waited for a decision to be made on where and when they would see action. The 1st Mountain Battery continued to train with its horses, as it was planned that they would

¹²⁵ Warby refers to a discussion between a member of the 2/3rd Fd Regt, and a friend who was the gunlayer of the 14th Fd Regt gun that fired on Ioribaiwa. He stated that one 25-pounder fired on the enemy, and that 'they tried to get another gun forward and did so, but not in time to shell the Japs'. Warby, *The 25 Pounders*, p. 169. See also, DVA, AAWFA, Roy Dockery, 14th Field Regiment, Archive No. 2023, time. 4.26.00.00.

¹²⁶ Horner, *The Gunners*, p. 341.

¹²⁷ AWM54, 577/7/22 [Owen Stanley: Reports] 'This report covers the detail of the work involved, and the difficulties encountered, in the task of moving the 25 pounder forward from Owers Corner towards Imita Ridge' [Sep-Nov 42]. The men involved were fifty from the 14th Fd Regt, a platoon from the 2/1st Pioneers, a platoon of 7th Division engineers and an unrecorded number of native carriers. See also, AWM52, 8/6/1, 4 October 1942 for a letter of appreciation from CRA 7 Div on the help provided by 5 Pl, 2/1st Aust Pnr Bn in moving a 25pdr gun forward in September 1942.

¹²⁸ Ibid, 'Report of Movement of 25 pounder to Ubiri [Uberi] Valley' by Maj CC Thomas BC of the Battery.

¹²⁹ Ibid. See the attached Appx H written by the BMRA NG Force 6 November 1942 discussing these experiments. See also, AWM52, 4/2/1, 25 September. The 2/1st Fd Regt was experimenting with dismantling its guns but was unable to get any of them forward before the Japanese retreated.

¹³⁰ AWM54, 577/7/35, 'Notes on 7th Division Operations Kokoda to Soputa' by Major Parbury, January 1943, p. 11. Parbury discusses here the possible use of infantry handcarts, modelled on Japanese versions, in future operations. The 7th and 9th Division, approximately a year later in September 1943, would be supplied with them. This will be discussed in greater detail in the following chapter.

¹³¹ Warby, *The 25 Pounders*, p. 174.

carry the unit into action.¹³² Of greater value were the ongoing experiments in dismantling the guns and preparing them for air transportation, which gathered momentum after a request for information was received from the CRA RAA 7 Division.¹³³ Inexplicably, it appears that no one in authority in the Australian Army had envisaged that frequently the only way to move anything around the terrain of Papua and New Guinea was by air.¹³⁴ Nevertheless, within days both the 2/1st and 2/6th Fd Regts had provided the requested information to headquarters. They continued to experiment with their guns to make them easier to move in the jungle, including by welding aircraft wheels to the trail.¹³⁵ On 1 November the four guns of 'E' Troop, 2/1st Fd Regt were fitted with this modification.¹³⁶ While it would be a year before it came to fruition, those in authority in Australia had also clearly identified the difficulties of moving artillery pieces in the swamps and jungles of Papua and New Guinea. Development of a 'short' or lightened 25 pounder therefore commenced in September 1942.¹³⁷

Although impossible to prove, reports from the two field regiments at Port Moresby on the difficulties of moving artillery in jungle warfare and that 'movement by vehicle is out of the question', arguably played a part in later decisions on the future

¹³² AWM52, 4/9/1, 4 November 1942. The unit would go into action in late November, but its horses would not. The difficulties of supplying them with fodder, and moving through swamps and mud would prove insurmountable. After fifteen minutes carrying sections of the mountain guns through mud in tropical humidity the horses were visibly distressed and virtually incapable of further movement. No amount of training or exercising could alter this fact. The idea of a mountain battery was based upon pre-war British experience from the North West frontier of India where packhorses carried broken down guns into the mountains in the unceasing skirmishes with various hill tribes.

¹³³ AWM52, 4/2/1, 1 October and 4/2/6, 12 October 1942 respectively. As the only suitable transport plane, the Douglas DC-3, could carry a payload of 5,000 lbs it was necessary to know exactly how much each part of a 25 pdr weighed, to determine how many plane loads would be required to move the guns, ammunition, stores and gunners.

¹³⁴ Why this should be so is difficult to understand, as prior to the war almost everything had been moved around the country by aircraft, including all the parts of the massive gold mining and dredging equipment in the highlands around Wau. See, for example, Ian Downs, *The New Guinea Volunteer Rifles 1939-1943: A History*, Broadbeach Waters, Qld: Pacific Press, 1999, p. 146: 'In 1936 more air freight was lifted from Lae [most of it to Wau and the goldfields] than the total weight of airfreight loaded in the rest of the world'. See also AWM 54, 578/6/1, 'Appendices 1 to 19 to first narrative of Kanga Force Operations 1st May 1942 to 15th January 1943', Appx 8, Report by War Correspondent Osmar White (July 1942), p. 5: 'I am unable to suggest why, up to this stage, an aerial system was not organised. Dromes in the area were not good, certainly; but they had been used for years by commercial airlines which even transported heavy mining machine from the coast [Lae]'. The knowledge and expertise was therefore available if the Australian Army and Air Force had known where to look for it.

¹³⁵ Haywood, *Six Years in Support*, p. 142. Spare wheels from US Airacobra fighter aircraft were used.

¹³⁶ AWM52, 4/2/1, 1 November 1942.

¹³⁷ Ross, *Armed and Ready*, pp. 398-9 and Horner, *The Gunners*, p. 355. This development will be examined in greater detail in the next chapter.

employment of artillery.¹³⁸ As Brigadier Porter identified at the time, each battle or campaign saw modification to tactics, equipment and war establishment.¹³⁹ Having been on the losing side in several battles, there was an understandable rush to find solutions. This led to hasty decision-making and, at times, preparation based upon the apparent lessons of those earlier battles. A previous example of this was the concentration upon creating a tactical doctrine for bicycles, based upon the supposed lessons of Malaya, examined in chapters three and four. Porter was arguably correct in stating that ‘after the Owen Stanley incident, I expect we will enter the plains on foot, carrying a mountain battery or two’.¹⁴⁰ Nonetheless, the necessity for changes to enable the army to operate more successfully in the tropics was indisputable.¹⁴¹ The consequences of the plethora of reports resulting from the Buna-Gona-Sanananda battles will be dealt with in greater detail in the following chapter.

By mid-November the Japanese had been pushed back to their defensive positions in the three beachhead positions at Buna, Gona and Sanananda. Finally the AIF artillery units at Port Moresby would have a chance to see action. On 23 November the recent experimentation by the artillery units was rewarded when the first ‘airborne artillery of the Australian Army’ flew over the Owen Stanley Range to Dobodura.¹⁴² Over the next month guns of several different units would be transported to the beachhead area, some by air, others by boat or barge. As Robey has identified, one of the most important means by which artillery was moved around the theatre – coastal transport – came into being during these battles.¹⁴³ With the almost complete absence of roads, air or sea transport were the only means by which heavy weapons such as artillery pieces could be moved. Reports released at the conclusion of the Buna-Gona campaign highlighted this and made tentative suggestions for future operations.¹⁴⁴ Despite the constant shortage of appropriate vessels, which continued until the war

¹³⁸ AWM52, 4/2/6, 29 September 1942.

¹³⁹ AWM54, 923/1/6, ‘Notes on Recently expressed concepts of tactics’ HQ 30 Aust Inf Bde, 11 October 1942. Porter was 30 Bde Commander.

¹⁴⁰ *Ibid.*, p. 1.

¹⁴¹ The debate over the need for change, and the scale of those changes, would recur in 1943 and 1944 and will be dealt with in chapters six [pp. 280-6] and seven [pp. 325-8].

¹⁴² Haywood, *Six Years in Support*, p. 145. For further information see AWM52, 4/2/1, 23 November 1942, one gun, two jeeps and various stores and ammunition would move in the first airlift.

¹⁴³ DVA, AAWFA, Herbert Robey, 2/6th Fd Regt, Archive No. 0585, time. 8.02.00.00: ‘we were almost limited in New Guinea to the places where we could take guns a certain way along the coast and drop the guns off’.

¹⁴⁴ See AWM54, 581/7/32, ‘Artillery Operations in Buna Gona Area’ by Brig L. E. S. Barker, 31st January 1943, especially p. 4 on transportation.

ended, seaborne movement of artillery became an accepted practice.¹⁴⁵ For the gunners, if they arrived at their destination after their voyage, the easy part was over.¹⁴⁶ The discomfort and, at times, misery of trying to survive in a sea of mud, with inadequate rations, drenched by rain, afflicted by disease and sickness, and under constant threat of death was to be their lot until relieved.

Upon arrival in the beachhead area, whether they had moved there by sea or air, the daunting challenges of operating in the environment immediately became apparent to the artillerymen. Foremost among these was how to move their guns into appropriate gun positions. For Pearce this entailed physically manhandling the guns ashore from a barge with multiple dragropes attached to the gun shield and tyres.¹⁴⁷ As the units at Milne Bay had quickly discovered, the waterlogged ground meant that only four-wheel drive vehicles were of any use. Virtually the only vehicles available – and suitable – were a small number of US jeeps. What would have taken a tractor or bulldozer a few minutes to drag a gun into position, took exhausted gunners hours of backbreaking work. In early January the 2/1st Fd Regt was required to move their guns and:

Seventeen men incl two officers finally started on task of hauling one gun through mud. Progress was painfully slow, and most exhausting...It took three hours to man-handle the first gun for 1000 yards through the swamp. [Later they were able to convince the crew of a General Stuart tank to assist in moving their second gun] The tank took 25 minutes to do the same task.¹⁴⁸

Signs that many current vehicles would be of little use in jungle conditions appear to have already begun to influence thinking in Australia. A report from early September

¹⁴⁵ Warby, *The 25 Pounders*, p. 216-7. In mid-1943, while supporting operations in the Nassau Bay-Salamaua area, the 2/6th Fd Regt actually mounted gun platforms on abandoned tank barges that they discovered along the coast after the Buna campaign. After successfully testing their floating gun positions, the BC [Maj Thwaites] sent a comprehensive report to CRA in Australia. Nothing came of it, but this example demonstrates that a great deal of the adaptation to the challenges of jungle warfare occurred on the ground and at the frontline, before being fed back to the authorities in Australia.

¹⁴⁶ Horner, *The Gunners*, p. 344. One lugger was sunk on the way to Buna by the Japanese, taking two guns to the bottom of the sea. Enemy patrol boats were not the only danger. See, DVA, AAWFA, Gibson, 2/5th Fd Regt, Archive No. 0012, time. 1.10.30.17: 'we had just taken the last load off when a search lights came around the headland, right on to us and blasted the damn thing out of the water, but it turned out to be the Americans'.

¹⁴⁷ DVA, AAWFA, Oswald Pearce, 2/1st Fd Regt, Archive No. 0876, time. 6.20.00.00: 'They just pushed the guns into the sea and dragged them into the shore by drag ropes'. The 2/5th Fd Regt faced the same challenges when they arrived at Oro Bay. See DVA, AAWFA, Gibson, 2/5th Fd Regt, time. 1.11.00.14: 'And then, all our guns, manually, didn't have any trucks or anything to pull them up through the coastal jungle area up to, close on to Buna'.

¹⁴⁸ AWM52, 4/2/1, 11 January 1943.

1942 lists modified war establishments for infantry, artillery, engineer and other units.¹⁴⁹ The first significant change recommended was the reduction in vehicles allocated to all units. Balancing this was the statement that all the vehicles that the units would retain should be four-wheel drive. On 1 October Advanced Headquarters (ADV HQ) confirmed that all vehicles sent to New Guinea ‘must be jeeps, FWD or better’.¹⁵⁰ With ongoing transportation problems, and competing priorities from other battlefronts, particularly Guadalcanal, artillery units at Buna-Gona found themselves having to make do with two jeeps each.¹⁵¹ This was never sufficient and borrowing or ‘scrounging’ vehicles from the US forces became common practice.¹⁵² In many instances carrying ammunition forward from dumps by hand was necessary:

Amn supply was always exhausting work...The single jeep was often unavailable, and then amn had to be brought up on foot. The two miles of “track”, with its three river crossings, needed several hours for a return journey – all to get two shells per man forward.¹⁵³

Even when their one jeep was working, the 2/1st Fd Regt found that it could only carry ‘forty rounds a trip’.¹⁵⁴

With a reduction in transport, combined with the swampy conditions, one of the greatest differences to the Middle Eastern campaigns became apparent, mobility. In North Africa or Syria, ‘we were mobile the whole time, moving all the time’.¹⁵⁵ Rapid movement, a necessity in modern warfare, was impossible ‘in slimy water two to five feet deep’.¹⁵⁶ It was difficult enough for infantry to move quickly in such conditions, but for artillery units it was an impossibility. As a report by the 1st Mountain Battery stated: ‘despite the magnificent performance of the Jeep, continual support from

¹⁴⁹ NAA, MP729/6, 47/401/1639, ‘Specialized Jungle Clothing and Equipment’, Appx Schedule E – ‘Proposed Estab MT’, 9 September 1942.

¹⁵⁰ AWM52, 1/2/1, Advanced Land Headquarters G Branch (ADV LHQ GS Branch), Appx A, Supplement No 1 – Priorities for New Guinea, 1 October 1942.

¹⁵¹ AWM54, 581/7/32, p. 14: ‘unit transport was limited to two jeeps per troop. These were required full time for the cartage of ammunition’.

¹⁵² DVA, AAWFA, Peter Gibson, 2/5th Fd Regt, time: 6.04.00.00.

¹⁵³ O’Brien, *Guns and Gunners*, p. 180. See also DVA, AAWFA, Pearce, 2/1st Fd Regt, time: 6.29.30.00: ‘for instance, the artillery fellas, the ammunition was dropped about 800 yards behind their guns. They in turn, the gunners had to go in the night time and physically carry all that ammunition to the guns for firing’. With each shell weighing 25lbs [approximately 12 kilos] one can well imagine the difficult of carrying boxes containing two of them through mud often knee deep, in pitch darkness, with the ever present threat of ambush by the Japanese hanging over them.

¹⁵⁴ McCarthy, *South-West Pacific Area First Year*, p. 375.

¹⁵⁵ DVA, AAWFA, Pearce, 2/1st Fd Regt, time: 5.32.00.00.

¹⁵⁶ Haywood, *Six Years in Support*, p. 147.

mechanized artillery would not be possible in a moving battle'.¹⁵⁷ To relocate an artillery troop in the jungle required many hours, whereas in North Africa gun tractors and limbers could be attached to the guns and a troop on the move in less than ten minutes. If a unit had come under counter-battery fire, or was being bombed by enemy aircraft, time was of the essence. Fortunately the Allied forces in the South West Pacific generally had air superiority so air attack was far less prevalent than against the Germans and Italians. The Japanese use of counter-battery fire was also negligible, in contrast to the Mediterranean theatre.¹⁵⁸

This lack of mobility in tropical conditions illuminated another problem that would confront all units in jungle warfare, but especially artillery units. With movement so difficult, gun positions were occupied for extended periods of time, a clear contrast to prior experience in the North African battles. As discussed in chapter one, gun positions could change daily, and in the 6th Division's advance from Bardia or the Benghazi Handicap for example, several times a day. A night raid on a 2/1st gun position at Buna 'brought home the fact that there can be no front line in the jungle' and highlighted the need for 'active patrolling, alert defence and excellent camouflage' of all gun positions.¹⁵⁹ As Porter noted, in thick jungle 'it is possible to stalk up to a position undetected...and effect surprise'.¹⁶⁰ The need for greater concentration upon infantry skills, including the setting of booby traps and the clearing of fire lanes was evident.

Jungle warfare for artillery units would therefore mean a greater emphasis upon self-protection. In the Middle East battles artillery units were often co-located with infantry units, at times within that infantry units' perimeter defence. This was a clear advantage for at least one gunner, in that serving with an artillery unit meant that 'you didn't have to dig holes and get yourself all dirty and you were behind the enemy lines and therefore in theory safer'.¹⁶¹ In tropical jungle the situation was reversed. There

¹⁵⁷ AWM52, 4/9/1, 'Report on 1 Australian Mountain Battery 10 Nov 42 – 20 Jan 43', Part II General Lessons From Buna Campaign, p. 1.

¹⁵⁸ AWM54, 581/6/9, 'Artillery Operations in Buna-Gona Area' by Brig L. E.S. Barker, 31 Jan 43, p. 9.

¹⁵⁹ Haywood, *Six Years in Support*, p. 155. See also, AWM54, 581/6/9, p. 13 on 'Protection And Security' that discusses this attack and suggests counters.

¹⁶⁰ AWM54, 923/1/6, p. 8.

¹⁶¹ DVA, AAWFA, Hudson, 2/7th Fd Regt, Archive No. 1484, time. 3.24.30.00.

was no 'frontline' as understood in North Africa or Europe. At least one regiment complained that:

In this type of fighting no closed lines are held and determined patrols can easily penetrate to guns. Sited almost inevitably on the edge of clearings it is easy for patrols to creep within a few yards of guns without being seen...[therefore] It is considered that at least a platoon per troop be allotted [to protect the guns] under all circumstances'.¹⁶²

At times in the future this would be possible, but artillery units would, for the rest of the war, have to rely upon themselves as this war diary entry on a training exercise in late 1943 makes clear:

Preparation of HQ and Troop areas for defence, incl fields of fire, LMGs on fixed lines, organisation of personnel into fighting groups similar to inf sections, trip wires, listening posts within perimeter, handiness of weapons, organisation of personnel so that every man knows the point in the perimeter to which he will go.¹⁶³

Although artillery units had always needed to be self-reliant with regard to protection of their gun positions, the differences between the open desert and the jungles of Papua could not have been greater. The statement that 'jungle fighting is performed largely by infantry at close range' was now also firmly applicable to artillery units.¹⁶⁴ They would need, in future campaigns, to become as adept with their small arms as they were with their artillery pieces.

Another modification to future employment of artillery in jungle warfare was first seen in these early operations. Traditionally the four-gun troop was the smallest artillery formation used, but in the swamps and jungles of the South West Pacific islands, even a force of that size was frequently too big to move, position and supply.¹⁶⁵ As with the infantry, artillery units in the jungle would find themselves operating in a decentralised manner.¹⁶⁶ For the infantry a subaltern or section leader would regularly operate with an independence markedly different from the manner

¹⁶² AWM54, 581/7/9, '2/1 Australian Field Regiment RAA – Use of Arty Buna' 1 January 1943, p. 2.

¹⁶³ AWM52, 4/2/3, Appx B, 2/3 Aust Fd Regt Training Instruction, 2/3 November 1943.

¹⁶⁴ AWM54, 579/6/5, 'Operation Milne Bay 24/8/42 to 8/9/42 Lessons from operations No 2', p. 15.

¹⁶⁵ Warby discusses the difficulty in attempting to position a four-gun troop in swampy jungle at Tambu Bay. It proved possible to find dry ground for two of them but the other two had to be dismantled and dragged through knee-deep mud and placed on wooden platforms some distance away. Warby, *The 25 Pounders*, p. 256.

¹⁶⁶ At this stage of the war an artillery regiment consisted of three batteries of eight guns each. Each battery consisted of two four-gun troops. Twenty-four guns was therefore the standard complement of a field artillery regiment. A battery was often detached in the North African or Syrian campaigns but rarely a troop.

the AIF had become accustomed to in the Middle East.¹⁶⁷ Artillery units would find that the terrain would force the same changes upon them. On very few occasions would an artillery regiment be able to fight together, as was the norm in Middle East or European battles, such as those in which Australian units were involved at Bardia or El Alamein. At times a single gun crew, with their ammunition and stores, would operate in a detached role for extended periods of time, with only occasional contact with their parent unit.¹⁶⁸ Even if the rest of their troop was only a kilometre away, the intervening terrain often meant that ‘we were quite isolated from them’.¹⁶⁹

Once the guns were in position, and a supply of ammunition available – even if it was paltry compared to that available during the North African or Syrian campaigns – came the almost insurmountable problem – namely, observation – that had been faced by the artillerymen at Milne Bay. While the thick jungle meant that ‘good, well concealed gun positions are easily found’, the lack of visibility meant that enemy positions were equally well concealed.¹⁷⁰ As discussed in chapter one, the standard procedure for artillery units was for an observation post [OP] to be set up in an appropriate location that overlooked the enemy positions. The observation post officer [OPO] would then communicate with his gun positions and pass the map coordinates to them. After adjustments were made, if required, he would continue to call for artillery fire until the target was destroyed or the objective gained. In the jungles and swamps of the Buna-Gona area, as Hudson put it, ‘you couldn’t find a suitable position for an observation post where you could overlook the enemy because the trees prevented this’.¹⁷¹

¹⁶⁷ In the desert war it was, of course, standard operating procedure for patrols of section, platoon and occasionally company size to reconnoitre independently. Generally in battle, however, a commander would be able to observe, and therefore directly command his unit as it manoeuvred. In the jungle this was rarely possible, with each platoon or section often fighting separate and sometimes unconnected actions. This will be discussed later in this chapter.

¹⁶⁸ See for example, Henry, *The Story of the 2/4th Field Regiment*, p. 274. On this page there is discussion of an occasion during the 7th Division’s Ramu-Markham campaign in which ‘it was also decided to move a short 25-Pounder under Lieutenant Dwerryhouse with twelve men for artillery support the 2/14th Battalion may have required’.

¹⁶⁹ DVA, AAWFA, Robey, 2/6th Fd Regt, time: 8.04.00.17. Robey was discussing the various dispositions of his regiment near Tambu Bay in mid-1943. Each subunit – generally two guns of a troop – was positioned in an inlet, with the other guns along the coast at the next inlet. While only a kilometre or so apart, the mountainous headlands in between made it difficult to coordinate action. Communication at times occurred via native canoe.

¹⁷⁰ AWM54, 75/4/20, ‘Report on 1 Aust Mountain Battery’ 10 November 42 – 20 January 43, p. 3.

¹⁷¹ DVA, AAWFA, Hudson, 2/7th Fd Regt, time. 4.36.30.00. For further examples see, DVA, AAWFA, Robey, time. 8.08.00.05: ‘Visibility of course is almost non-existent’ and DVA, AAWFA, Edward

The only observation posts that could be found were up trees and these were barely adequate. Even if a tree was large enough to be climbed ‘a clear view over the remainder of the jungle was a matter of trial and error’.¹⁷² Frequently, upon climbing a tree, the observer could see less than fifty yards towards the enemy. A report written after the campaign even argued that while ‘trees were used, [they] gave little appreciable advantage over ground OP’s’.¹⁷³ With each individual observation post only being able to observe a small area, the number of posts increased exponentially: ‘in one case 9 OPs were in use for one-25 pounder troop’.¹⁷⁴ Clearly the normal compliment of OPOs and their signalmen would be greatly strained in manning all these observation posts.¹⁷⁵ The 2/1st Fd Regt had obviously anticipated this increased demand as ‘officers and signallers were attached from 1 Battery to meet [the increased OP requirements] them’.¹⁷⁶ As ‘the type of country and the climatic conditions forbade the use of wireless between OPs and Troops...[F]ull reliance had to be placed on wire’ straining an already scarce resource.¹⁷⁷

The only solution to the problem of inadequate or nonexistent observations posts was to assign FOOs to each infantry unit. The 2/1st Field Regiment stated that ‘FOOs were kept with every Bn supported and they engaged whenever possible’.¹⁷⁸ Other units used the same tactic, including the 2/7th Fd Regt:

I was sent forward as a forward observation post officer to support the infantry. I was actually with the infantry themselves. As I said there were no chances of ops as we normally have them where you overlook the enemy in the jungle. You can't see anything so I was in support I went forward in support of the 127th Infantry Regiment.¹⁷⁹

Hewit, 2/1st Fd Regt, time. 6.25.30.00, ‘It was hard to see anything because the jungle was pretty thick’.

¹⁷² AWM54, 581/7/32, ‘Artillery Operations in Buna Gona Area’ by Brig L. E. S. Barker, 31st January 1943, p. 7.

¹⁷³ AWM54, 75/4/18, ‘Artillery in Jungle Warfare – Notes compiled from reports, from Pacific War Zone – 1943’, 23 Feb 43, p. 2.

¹⁷⁴ AWM54, 577/7/29, Part 18, ‘New Guinea Force Report, Signal Communication’ Buna – Kokoda – Sanananda, 21 July 42 – 22 Jan 43, p. 3.

¹⁷⁵ Haywood, *Six Years in Support*, p.152. The 2/1st eventually had to deploy OPOs and signalmen from both their other batteries to cover the increased demand.

¹⁷⁶ Haywood, *Six Years in Support*, p. 147. This unit had only one battery deployed to Buna, meaning that officers and signalmen from the other batteries were able to be utilised. When a whole regiment was deployed, however, the increased need for OPOs and signalmen would clearly have to be met from external sources.

¹⁷⁷ AWM54, 581/6/9, p. 8. As the report then went on to say ‘The direct route often crossed swamps or enemy positions. In one case 3 miles of wire was laid to join two points about 1000 yards apart’.

¹⁷⁸ AWM54, 581/7/9, ‘2/1 Australian Field Regiment RAA, 1-1-43, Use of Artillery Buna’, p. 2.

¹⁷⁹ DVA, AAWFA, Hudson, 2/7th Fd Regt, time: 5.06.00.00.

Although FOOs had, on occasion, accompanied infantry patrols in previous campaigns to provide artillery support, the normal and accepted procedure was for artillery regiment officers to man OPs and call in fire in support of infantry attacks. These early jungle campaigns saw several instances in which FOOs went on patrols with the infantry, although it was more customary to have an artillery liaison officer or FOO with an infantry battalion headquarters.¹⁸⁰ They then communicated with the gun positions. This was necessary for several reasons, not the least because of the inadequate maps and subsequent uncertainty of a unit's location and those in the vicinity.¹⁸¹ The reasons that units had inadequate maps have been discussed earlier in this chapter. Why, however, many units did not have access to aerial photographs of the beachhead area is harder to understand. The bloody battle to capture Gona village in late November and early December was made immeasurably harder because the Australian infantry units had 'no aerial photographs, nothing to go on'.¹⁸² Yet such photographs existed: Lt-Col Honner, commander of the 39th Battalion stated, 'after the campaign was over of course, we were shown the aerial photographs which had been taken months before'.¹⁸³

The lack of adequate maps lead, at times, to artillery being called down by 'educated' guesswork, which resulted in friendly casualties.¹⁸⁴ For the remainder of the war, it was standard operating procedure for infantry patrols, even as small as platoons or sections, to be accompanied by an artillery FOO so that fire support could be timely and accurate.¹⁸⁵ The close co-operation between artillery and infantry units, that would be a key factor in the successful later campaigns, had its genesis in the Milne Bay, and more particularly, Beachhead battles. Suggestions regarding better training

¹⁸⁰ AWM54, 75/4/18, p. 6.

¹⁸¹ AWM54, 581/7/32, p5, 'Accurate up to date maps were not available'. Also page 9, 'Close shoot procedure was however, limited by the position of other units of our forces'. See also, DVA, AAWFA, Hewit, 2/1st Fd Regt, time: 7.02.30.00, 'I didn't have a map and the maps weren't very good anyway'.

¹⁸² Brune, *Those Ragged Bloody Heroes*, p. 229. The quote is from Captain H. J. Katekar, Adjutant of the 2/27th Battalion.

¹⁸³ Ibid, p. 229. Honner was correct, as AWM254, Item 133 proves. This file contains dozens of large-scale aerial photographs of the beach head area with a date range from June to December 1942. Why they were not available to the infantry units is inexplicable, especially as, at least in some cases, artillery units did have access to aerial photographs. See AWM54, 75/4/18, p. 2.

¹⁸⁴ DVA, AAWFA, Hewit, 2/1st Fd Regt, time: 7.02.30.30.

¹⁸⁵ See, for example, Ron Jackson, *The Broken Eighth: A History of the 2/14th Australian Field Regiment*, Melbourne: Clipper Press, 1997, p. 162, 'In this situation [thick jungle] the OPO became an FOO whose party then moved with the Forward Infantry Company and engaged targets on request'. (The unit saw service on New Britain in 1944-45.)

and closer co-operation between artillery and infantry units appear in some of the after-action reports already discussed.¹⁸⁶

With hopelessly inadequate maps, intermittent communications and greatly circumscribed visibility hampering ground observation, the use of airborne spotting and ranging became crucial. Although the comment that ‘this is considered the only satisfactory method of observation of fire’ may have been an exaggeration, the importance of the Wirraway aircraft of No. 4 Army Co-Operation Squadron, RAAF should not be understated.¹⁸⁷ As Barker’s report stated, the ‘arty R plane became a flying OP’ and like an OPO, called down fire on targets of opportunity regularly.¹⁸⁸

Air Co-operation squadrons contained a photographic section, meaning that:

In an area of this nature when no reliable maps are available it is possible to have the squadron first photograph the area – then register pre-arranged points from the photographs, – from this build up a map on the arty board from which accurate shooting can be done in the area.¹⁸⁹

Air to ground artillery direction had of course occurred prior to this campaign, as discussed in chapter one, but in terrain of this nature it was unprecedented.¹⁹⁰ The fact that ‘no previous training had been undertaken together’ meant that once again, lessons were being learnt on the ground and in combat.¹⁹¹ Men were suffering and dying as the army struggled desperately to modify and adapt its previous learning and experience to the new circumstances.

Even after all these challenges were overcome, the problems of using artillery in the jungle continued. The ‘high trees surrounding targets added another hazard in the form of tree-bursts’, that rained shrapnel on friend and foe alike.¹⁹² In earlier battles the artillery regiments could rely on their predictor tables to calculate where 100 percent of their shells would land. Thick jungle now meant that a shell would ‘hit a

¹⁸⁶ AWM54, 75/4/18, pp. 7-8 and AWM54, 581/6/9, p. 11.

¹⁸⁷ AWM54, 581/7/9, ‘2/1 Australian Field Regiment RAA’, p. 3.

¹⁸⁸ AWM54, 581/6/9, p. 12. Arty R is shorthand for Artillery Reconnaissance.

¹⁸⁹ AWM54, 75/4/18, p. 2.

¹⁹⁰ The use of observation balloons during the American Civil War (1860-65) is the first recorded instance of air to ground communications for the directing of artillery fire. It had also been standard in the First World War.

¹⁹¹ AWM54, 75/4/18, p. 3.

¹⁹² Haywood, *Six Years in Support*, p. 151. The vast majority of artillery shells available at the Beachheads were standard High Explosive [HE] shells with instantaneous fuses that detonated on impact, whether in the treetops or upon hitting the ground or a Japanese bunker.

tree before it reaches the 100% zone and therefore the 100% zone was unreliable'.¹⁹³ If an artillery regiment could not now predict accurately where its shells would land, the assaulting infantry would have to remain further back prior to an attack. When the barrage subsequently lifted and the infantry moved forward, 'the difficulty of terrain and inability of attacking infantry to make a rush' doomed many attacks to failure.¹⁹⁴ The most telling of these were the 25th and 21st Brigade's attacks on Gona from 20 November to 3 December 1942.¹⁹⁵ Repeated attempts to take Gona were repulsed with horrendous casualties after minimal artillery preparation. This situation would improve to an extent at Gona when Delayed Action [DA] fuses for the 25 pounders became available.¹⁹⁶ After a more carefully planned attack, which included a request by Lieutenant-Colonel Honner, commander of the 39th Battalion for DA fuses, Gona was finally taken on 9 December.¹⁹⁷

By the time the final Japanese defences at Sanananda had been overrun in late January 1943, the level of co-operation, and therefore results, had improved markedly. The artillery regiments, the RAAF and the infantry had all become more accustomed to operating in the difficult environment of the tropics. From the late August-early September battles at Milne Bay to the final climatic encounters at Buna and Sanananda in January 1943, the use of artillery, previously thought impossible in jungle warfare, had been proven. The 18th Bde report compiled in late January 1943, 'stated with confidence that arty may be employed very successfully in jungle

¹⁹³ DVA, AAWFA, Hewit, time: 4.37.00.00.

¹⁹⁴ AWM54, 581/7/9, p. 1.

¹⁹⁵ Brune, *Those Ragged Bloody Heroes*, pp. 223-256. Various battalions of 30th Militia Brigade were also involved in some of these attacks. Being less well trained and experienced than the AIF units they suffered even more grievous casualties than the AIF.

¹⁹⁶ Delayed Action fuses meant that the shells passed through foliage and buried themselves in the ground and Japanese defences before exploding beneath the surface, inflicting considerably greater damage upon well-constructed bunkers and their occupants, than standard HE shells that burst on the surface.

¹⁹⁷ Peter Brune, *We Band of Brothers: A Biography of Ralph Honner soldier and statesman*, St Leonards, NSW: Allen & Unwin, 2000, pp. 204-5. It appears difficult to determine why DA fuses were not used for the earlier attacks, unless they were simply not available. It seems beyond belief that Brigade and Battalion Commanders of the ability and experience of Dougherty, Caro and Cooper would not have already thought to use them to destroy the very strongly constructed Japanese bunkers. In Brune, *Those Ragged Bloody Heroes*, p. 256, Honner states that in a conference prior to his 39th Battalion attack, he requested from Brigadier Dougherty that he be allowed to use DA fuses. Whether this request had been made earlier by other units is not recorded in the relevant war diaries. As the 2/14th and 2/16th Battalions had only arrived 36 hours before they were to attack Gona village this is perhaps not surprising.

warfare'.¹⁹⁸ This was in marked contrast to the stance taken by many in authority only four months earlier.

New techniques, or at the very least, the relearning and modification of old ones were being developed. Foremost among these would be the use of aircraft as aerial observation posts and the closer integration of FOOs with infantry units. The dangerous methods of judging and adjusting fire by splinter and sound-ranging would continue to be used throughout the island campaigns. Some problems would, however, continue until the cessation of hostilities. Movement and supply of artillery regiments would never be adequately solved. The knee-jerk reaction to reduce vehicle establishment to a bare minimum – largely in response to the Kokoda campaign – would have a detrimental effect on mobility. This was just as Porter had argued it would.¹⁹⁹ The numerous reports compiled from units who had fought in the Milne Bay and Beachhead battles would form the basis for the training manuals used to train formations in Australia in 1943. Their usefulness and applicability would be judged in the 7th and 9th Divisions' battles from September 1943 to February 1944.

'Torrential rains delayed progress': Engineers

The training and equipping of engineers, who would later become even more crucial to operations in the jungles of the South West Pacific than they had been in the desert battles, was also largely overlooked when the first AIF units were deployed to Port Moresby. Many of the units did not arrive in Papua until September or October, forcing the 21st Brigade in particular to rely almost solely upon their own overstretched pioneer platoons.²⁰⁰ Those that were deployed were generally engaged in similar tasks to the Militia battalions: roadmaking and constructing defensive positions and gun emplacements around Port Moresby or Milne Bay.²⁰¹ The 2/4th

¹⁹⁸ AWM54, 581/7/31, Part 2 of 2, 'Report on Operations, 18th Infantry Brigade' January 1943, Part II, Lessons Learnt in Cape Endaiadere – Giropa Point and Sanananda Area Ops Dec 42 – Jan 43 and recommendations arising therefrom, p. 2.

¹⁹⁹ AWM54, 923/1/6, p. 1.

²⁰⁰ McCarthy, *South-West Pacific First Year*, p. 227.

²⁰¹ AWM54, 313/4/28, 'Report on Engineer Works During New Guinea Campaigns 1942'. As this 9p report, written in March 1943, highlights: a higher proportion of the engineer units were allocated to works tasks in the Port Moresby to Owers Corner area than on the Track. Admittedly, the terrain and appalling conditions on the track limited the numbers of personnel able to work forward of Ower's Corner.

Field Company, RAE, which arrived in mid-August at Milne Bay found itself working on 'roads and bridges' in the base area.²⁰²

With the incessant torrential rain at Milne Bay turning roads into rivers, and the great shortage of four-wheel drive vehicles, as many personnel as possible were employed on this task. This prevented engineers from working with the forward infantry units. The need to unload ships would divert further men from assisting the infantry in their pursuit of the retreating Japanese. Both climate and terrain, rather than the enemy, were now the major determinants in the pace of operations in the tropics, in contrast to earlier campaigns. Adjusting to this change would not be easy, and in the initial Papuan campaigns would cause much friction between commanders on the ground and their superiors at NGF or LHQ.²⁰³ For the rest of their time at Milne Bay, the engineers would continue to struggle to improve the roads and bridges that were regularly washed out by flash floods. Their only directly combat related task was in providing limited training for the 18th Brigade in the laying of minefields.²⁰⁴

In Port Moresby HQ 7 Division RAE and their subordinate units were involved in similar tasks, albeit not in such adverse weather conditions. Although the unloading of ships drew some engineers away from their primary duties, the majority were able to continue on defensive works and the critical task of improving the track north of Ower's Corner.²⁰⁵ The most urgent task of the 7th Division Field Companies was described as 'being the maintenance and improvement of the road through Rouna to Koitaki and Itiki, where carriers picked up their loads for transport ...to Myola and thence to Isurava'.²⁰⁶

²⁰² AWM52, 5/13/4, 28 August 1942.

²⁰³ 3DRL/6643, Private Papers of Field Marshal Sir Thomas Albert Blamey, Series 2, Wallet 138 of 1141, see the letters from Vasey to Rowell, 28 August 1942; Blamey to Rowell, 1 September 1942 and Rowell to Blamey 3 September 1942. Only Rowell's letter of 3 September demonstrates any understanding of the difficulties faced by Maj-Gen Clowes, the commander at Milne Bay during the battle. The slow pace of operations was clearly beyond the control of the commanders – or men – on the ground. Blamey and MacArthur, with no real understanding of the conditions, appeared not to take this into account in their planning.

²⁰⁴ AWM52, 5/13/4, September 1942.

²⁰⁵ AWM52, 5/5/11, September War Diary entries.

²⁰⁶ McNicoll, *Ubique*, p. 154. See also AWM52, 5/13/6, Aug-Sep 42.

This sentence does not adequately convey the conditions under which the engineers were working in an attempt to make the track more passable for the infantry. An article in the Brisbane *Courier Mail* was closer to the truth:

Even Malaya was not to be compared with the damp, dark, tangled jungles of the Owen Stanleys...no sunlight penetrates the matted branches of the forest giants. In clothes wet with sweat and the slow, heavy drops of light but constant mountain rain, our party struggled for hours up and down a slippery muddy track which is impassable even for mule teams. Beyond this, deep in unmapped jungles, our patrols are hacking their own trails. Engineers and Pioneers, stripped to the waist, were working day and night repairing trails or building new ones to reduce the almost perpendicular grades.²⁰⁷

Once the advance from Imita Ridge began in September, the engineers and pioneers faced the same challenges as all other units: how to rationalise equipment carried so that the momentum of the advance could be maintained. As the slow advance northwards in September gathered momentum, the engineers with the leading infantry units realised that a bare minimum of tools were all that could be used in the mountainous terrain.²⁰⁸ Ultimately, as the aforementioned report suggested, the 'use of local resources and improvisation is of paramount importance'.²⁰⁹ The advice of the men struggling to improve the track would later appear in a report written after the campaign by the CRE:

Owing to the lack of transport throughout the campaign engineer tools and limited essential stores have had to be carried by sappers, one ordinary tool (such as shovels, picks, axes) per man being the maximum practicable.²¹⁰

These equipment restrictions forced the men on the ground to perform all tasks with hand tools, to improvise, and to rely upon captured enemy stores to a greater extent than had been the case in the Middle East.²¹¹ It also meant that:

When brigades are advancing at a fast rate the engineer personnel are at a considerable disadvantage in having to maintain the pace of the infantry and

²⁰⁷ T. Fairhall, *Brisbane Courier Mail* and reprinted in the Moresby Army News Sheet, 12 October 1942 in, Gordon Osborn, Steve Clarke, Bill Jollie and Max Law (eds) *The Pioneers: Unit History of the 2nd/1st Australian Pioneer Battalion Second AIF*, Beverly Hills, NSW: MD Herron, 1988, p. 105.

²⁰⁸ AWM52, 5/13/6. The WD entry for 29 September contains a list of hand tools for 'future movement of Engrs forward'.

²⁰⁹ AWM54, 313/4/28, p. 4.

²¹⁰ McNicoll, *Ubique*, p. 157. McNicoll states that the document was compiled by Brigadier R. A. J. Thompson and entitled 'Report on Engineer Works during campaign, 1942'.

²¹¹ The desert campaigns had, of course, seen all sides capture and press into service vehicles and weapons. The impossibility of using mechanised transport in the Kokoda campaign made this a moot point.

provide stream-crossing and other facilities on route, and their efficiency is noticeably reduced if they are overburdened with tools and stores'.²¹²

The problem of the infantry outpacing their engineer support would come to a head most notable at Wairopi, where the wire rope bridge across the Kumusi River had been destroyed by Allied aircraft attempting to slow the retreat of the Japanese.²¹³ Frustrated infantry commanders had to wait for the small party of engineers to retrieve airdropped equipment before attempts could be made to cross the river and continue the pursuit.²¹⁴

Engineer units therefore had to make great changes to the way they had operated in the Mediterranean theatre. This was primarily due to the inability of vehicles to traverse the Kokoda Trail and the quagmire that roads became at Milne Bay. Much of the equipment that they required to perform their normal duties had to be left behind in Port Moresby. While the terrain necessitated these changes, improved initial planning should have seen heavier equipment airlifted to Myola or Kokoda to be used by the engineers upon their arrival. Again, inadequate planning and preparations necessitated much arduous work for the units in the field. Before the engineer and pioneer units had begun large-scale attempts to make the Kokoda Trail less treacherous underfoot, the infantrymen of the 2/14th, followed a day later by the 2/16th Battalion marched off from Ower's Corner towards Uberi and on towards Kokoda. The first AIF units to have returned from the Middle East would soon discover to what extent their prior experience and training would assist them in a new environment and against a new enemy.

'An Infantryman's Calvary': The 21st Brigade on the Kokoda Track

On 16 August 1942 the 2/14th Battalion of the 21st Bde was the first AIF unit to set off on the heartbreaking slog over the Kokoda Track. The 2/14th was fortunate in the first few days of its journey as the rains held off. Nevertheless the physical strain of climbing up and down the forbidding mountains took its toll. As Thompson stated:

You go up hills and you go down hills and you're crying your heart out by the time you get to the top of a hill. You're legs are tired and your knees are tired and you're feet are sore, and when you go down you find it's worse

²¹² McNicoll, *Ubique*, p. 157.

²¹³ McCarthy, *South-West Pacific Area First Year*, p. 330.

²¹⁴ Crooks, *The Footsoldiers*, p. 228.

because you're legs go rubber and you're bearing your weight down on it all the time.²¹⁵

Soon, however, the effort required of the troops increased as they gained elevation and the rain began, and did not seem to cease for the rest of the campaign. For the men of the 2/14th, who like the rest of the 21st Brigade, had seen action in the mountains of Syria and felt themselves to some extent prepared, the Kokoda Track would challenge even the strongest, as Mason discovered:

There was no flat and you were up to your ankles at least in mud, sometimes up to your knees. It was just up and down, and up and down...It was absolutely exhausting. You just imagine pulling your foot up every time out of mud because it rained every night.²¹⁶

The experience of the 2/16th Battalion – who were a day behind the 2/14th – was similar, with the result that ‘when the Battalion reached the staging camp at Uberi, the men were ready to drop into any shelter that promised rest.’²¹⁷ With only a half blanket and a gas cape each to keep off the rain, all had a miserable night’s sleep.

Soon the ever-present rain and high humidity began to cause problems in unexpected areas. While the amount of paperwork naturally decreased once a unit was in the frontline, the necessity of keeping up to date strength returns, casualty lists and ammunition and ration states had not altered with the change in operational theatre.²¹⁸

For the intelligence and orderly personnel:

These difficulties were increased one hundred fold in 1942, when instead of a truck load of files, books and forms, the orderly room supplies consisted of a damp note-book, some sodden paper and a representative collection of forms gradually mouldering into pulp.²¹⁹

With a gas cape and half a blanket to keep the rain off officers as they attempted to complete daily reports on their companies’ activities, the administrative side of commanding and organising a battalion became immeasurably more complicated in

²¹⁵ DVA, AAWFA, Thompson, 2/14th Battalion, Time.6.30.30.00.

²¹⁶ DVA, AAWFA, Mason, 2/14th Battalion, Time. 6.07.30.00.

²¹⁷ Uren, *A Thousand Men at War*, p. 119.

²¹⁸ Nor had it changed in the 132 years since Wellington wrote to the Secretary of State for War decrying the ‘mass of futile correspondence that surrounds me’. Quote taken from frontispiece to *ATM No. 20*, February 1943, p. 2.

²¹⁹ Russell, *The Second Fourteenth Battalion*, p. 58.

the tropics.²²⁰ More far-reaching difficulties, especially of a tactical nature would soon begin to challenge all units.

With little inkling of what awaited them ahead, the battalions attempted to acquire as much information as possible as they continued towards Kokoda. On 19 August on the track to Menari:

Several walking wounded from 39 Bn came in and were questioned as to their experiences and the condition of the track. They did not seem unduly impressed either by the Japs or the track.²²¹

This statement appears to support the belief by many of the 21st Brigade that they would prove a match for the Japanese. A week later the 2/14th were fighting alongside the 39th Battalion at Isurava in a desperate effort to hold back the waves of attacking Japanese. As the 2/14th Battalion war diary recounts the:

Unit had no chance whatsoever to chose its own defensive area or to adopt the offensive role as had been originally contemplated. Each Coy as they went forward to relieve pressure on the 39 Bn were immediately committed, and as a result, had to fight on ground not of their own choosing.²²²

The importance of prior reconnaissance – particularly to gain intelligence on the number and dispositions of enemy formations – and of then being able to chose the battlefield is crucial to any commander, and in wholly unfamiliar terrain, even more important. At least one officer, however, who fought throughout the campaign, has argued that:

Because the Australians found the environment strange and threatening, patrolling had been ineffective and provided no useful information of enemy strength or intentions for the commander.²²³

The combat that the brigades of the 7th Division had participated in – whether in Syria or Tobruk – had generally been preceded by painstaking, detailed reconnaissance by section or platoon patrols, usually at night.²²⁴ This was necessary to determine the

²²⁰ One example of this can be seen in the various unit war diaries for the Kokoda and Milne Bay campaigns. The entries for this period, unlike earlier, are not typewritten, but completed by pencil or pen. They are also much more concise, at times a line or two sufficing for a day. After a unit was withdrawn from battle their war diaries included greater information.

²²¹ AWM52, 8/2/21, 19 August 1942.

²²² AWM52, 8/3/14, 29 August 1942.

²²³ Sublet, *Kokoda to the Sea*, p. 56.

²²⁴ While some 7th Division units complained about the maps made available to them for the Syrian Campaign, they all admitted that they were immeasurably better than those of Papua or New Guinea.

size and location of enemy forces and minefields, and the best path to take when an attack was planned.²²⁵ Obtaining as much information as possible prior to attacking was also crucial if the fire support plan was to be successful. In these campaigns, where the open and treeless terrain afforded little concealment, either for defenders or attackers, it was quickly realised that ‘showing one’s head invited enemy mortar, artillery, machine-gun and sniper fire’.²²⁶ Many units in the Mediterranean theatre – both Allied and Axis – consequently became almost nocturnal, as discussed in chapter one. As an officer of the 2/31st Battalion would later recount, ‘in open warfare we had used the darkness to organise the firing positions, get out the wounded, bring in food and ammunition. We had to learn again’.²²⁷

The Australian Army had thus become accustomed to performing most tasks during the hours of darkness, including resupply and reconnaissance. This ingrained method of operating therefore had to change once the AIF began to fight in tropical jungle:

I remember doing a - an experimental night patrol through that [jungle] country, and found it was quite impossible, you just couldn't do patrols at night. So we had to change our ideas of - of battle. Because in the Middle East most of our attacks were dawn attacks, and a lot of our movement was done at night, our moving up to positions of attack. We found it was impossible there, and we started to have a change of thought on how we would fight campaigns in this sort of country.²²⁸

The Australians had also become used to moving in tactical formations that best suited the terrain and lack of cover in the deserts of North Africa, or the bare mountains and valleys of Syria. In the desert, open and widely dispersed formations made it less likely that accurate artillery or machine-gun fire would kill or wound a large proportion of an attacking force. Adapting to a close formation proved difficult:

After about two years of out in the open, jungle fighting it was terribly hard to get used to going in close formation through the scrub, with all bunched together...if you took up a defensive position, and concentrate a lot of men in one little concentrated area ...it would be absolutely fatal in open

²²⁵ Sholl, ‘Points Noted and Lessons Learnt’, p. 43.

²²⁶ Johnston, *The Silent 7th*, p. 35. This passage describes aspects of the 18th Brigades’ service in the besieged fortress port of Tobruk in mid-1941.

²²⁷ Geoffrey Hamlyn-Harris, *Through Mud and Blood to Victory*, Newport, NSW: 2/31 Australian Infantry Battalion Association (NSW), 1994, p. x. This quote is by Major Bruce Robertson, at the time a junior officer with the 2/31st Bn.

²²⁸ AWM, KMSA, Robert Johns, 2/27th Bn, Archive No. S799, tape 1, side B, 20-25 minutes. See also, DVA, AAWFA, Gilbert Simmons, 2/25th Bn, Archive No. 1186, time. 5.36.30.00: ‘You can't move in jungle at night, it's just jet ink black, you can't, you lose complete orientation, you don't know where you are going. So we had to stop. Pitch, it pelted rain all night and we just lay in it’.

warfare to have done that. One grenade would have got the lot and you couldn't get used to that kind of thing.²²⁹

In the jungle a formation would quickly become separated and disjointed if it dispersed, as was the norm in the desert. The AIF would need to modify the lessons of two years of overseas service to operate in the new environment.

Making it more difficult for the Australians to quickly adapt to the new environment was the fact that their current training manuals reflected the experience of the desert and Syria. The relevant chapter of *Infantry Minor Tactics 1941*, contained three formation diagrams, including one that depicted a 'platoon moving in very thick country' [visibility 10 yards].²³⁰ The formation depicted had two of the platoons' three sections forward and the third behind with the platoon commander moving with that withdrawn section. This formation was far more suitable to open countryside or desert warfare where the bulk of the unit's firepower was to the front where it could be brought to bear on the enemy and 'compensate for the absence of cover'.²³¹ In thick jungle, which would be an adequate description of an environment where visibility was only ten yards, a much more suitable formation would see a unit move in single file with one section – or platoon – up and two back. This would allow the commander to manoeuvre the bulk of his formation to whichever flank required the firepower, should contact be initiated suddenly and unexpectedly as occurred regularly in jungle warfare. It would also prevent the bulk of the formation being cut down should they come under unexpected frontal fire.

Infantry Minor Tactics, however, argued that '*it is considered nevertheless that these three [formations] will fulfil all the section's requirements in modern battle*'.²³² This statement is arguably incorrect as none of these formations was suitable for jungle warfare, but drew extensively on the most recent experiences of the AIF in the Middle East. New, or at the very least modified, section and platoon formations proved necessary in Papua and New Guinea. Sholl is correct in arguing that pre-war infantry

²²⁹ AWM, KMSA, Curtis, 2/12th Bn, transcript, p. 67.

²³⁰ CAL, LWDC, [Unnumbered box] *Infantry Minor Tactics 1941, Australia*, Melbourne: HMSO, 1941, p. 86. This highly detailed [222p] manual was published in December 1941 and clearly reflects the lessons learnt by the 6th, 7th and 9th Divisions in their North African and various Mediterranean battles over the previous year.

²³¹ Sholl, 'Points Noted and Lessons Learnt', p. 45.

²³² *Infantry Minor Tactics*, p. 81. [Italics in original.]

tactical doctrine more closely resembled those developed or adopted for operations in Papua or New Guinea than the formations used in the Middle East.²³³ This, however, fails to take into consideration the fact that the AIF troops desperately fighting to come to terms with vastly different terrain and a new enemy, had trained and fought in a completely different theatre.²³⁴ The tactics they had successfully employed in 1941 in the Middle East, as discussed above, should not have been transferred unaltered to the new battlefield. That they were, at least initially, caused unnecessary casualties as Robertson admits:

Unfortunately some splendid troops were lost dashing forward on that first day: that procedure had a chance in open warfare, where extensive visibility allowed their mates to support them with effective aimed fire; here they were swallowed by the jungle.²³⁵

Robertson was describing actions by the 2/31st Battalion, who went into action in September, supporting the 21st Brigade. One can only assume that the lack of time for the survivors of the 21st Brigade to pass on information to their fellow 7th Division comrades explains why they should make the same mistakes as those who had gone before them.

Before they could successfully modify their tactics to suit the exigencies of the terrain, environment and a new enemy, many of the troops had to overcome their fear of the strange and unknown jungle. Numerous accounts underscore the fact that Australian troops, even the battle-hardened 18th and 21st Brigades, initially found adapting their tactical methods and training to the new country daunting. It is arguable that the men of the 2/16th Battalion from Western Australia were the least likely of the 21st Brigade to have experienced country similar to New Guinea.²³⁶ This description would undoubtedly resonate with all of the AIF units upon first sighting the jungle:

Around Gorari and Oivi the jungle oppressed with its brooding malevolent silence; danger lurked in its dark recesses; death struck without warning

²³³ Sholl, 'Points Noted and Lessons Learnt', pp. 81-83.

²³⁴ As discussed in chapter one, it also ignores the fact that interwar training for the Australian Army was virtually nonexistent due to funding issues, that many of the pre-war training manuals were outdated and that most of the soldiers who were fighting in Papua did not have the benefit of pre-war training.

²³⁵ Hamlyn-Harris, *Through Mud and Blood to Victory*, p. x. This quote is actually from the introduction by Major Robertson of the 2/31st Bn.

²³⁶ Many of the original members of the 2/16th Bn were labourers, miners and farmers from Kalgoorlie and environs, as far removed as could be imagined from the wet tropics of Papua.

from an unseen source; the cracking of a twig could cause panic; the almost incessant rain and the pervading clinging, dragging mud brought on a feeling of helplessness against an enemy who could be everywhere at once; a feeling that the odds were overwhelmingly stacked against the soldier, alone in a great loneliness where nobody cared about him. The enemy moving stealthily through the crowded rubber trees on the little Kokoda plateau took on huge, grotesque and menacing shape.²³⁷

When the 25th Brigade was thrust into action in late September, a very similar reaction would be forthcoming from its troops.

The jungle noises, pressing in from every side, from the trees above and the gullies below, were as weird and strange as they were varied...Other sounds of jungle life we heard for the first time that night were squeakings, scuttlings and gruntings of prowling beasts and reptiles, together with the croakings and pantings of a thousand different species of frogs, toads, and other things of an aquatic nature. Night birds came out and wooed their mates with strange flutings, or screamed or squawked in the tooth and claw of their natural enemies.²³⁸

Some troops were so afraid of the jungle, and what it possibly contained, that they were 'too frightened to venture into the jungle at night even for the relief of discomfort caused by nature.'²³⁹ White also noticed and commented upon the initial reactions of the 21st Brigade troops as he was marching forward with them towards Isurava:

The bulk of them were troops trained for desert warfare. They were more than half afraid of the country. You could see that in their movements, in their whole attitude. They were far more afraid of the country than the Japanese...a formally trained soldier thought of them [the hills of Papua] as deadly enemies eternally ready to baffle and trap him.²⁴⁰

Australian war correspondent Chester Wilmot, who would report his observations to Rowell and Allen on his return to Port Moresby, wrote that:

The AIF were novices at jungle warfare. They hadn't even learnt to move through the country, and movement is the most specialised aspect of this type of fighting. Compared with the Japanese they were raw recruits, and it is no wonder that they were driven back'.²⁴¹

²³⁷ Sublet, *Kokoda to the Sea*, p. 25.

²³⁸ Hamlyn-Harris, *Through Mud and Blood to Victory*, pp. 22-23. Hamlyn-Harris was a stretcher-bearer with the 2/31st Battalion.

²³⁹ AWM52, 8/3/14, 'Reports on Operations in New Guinea' 28 September 1942. This quote is on the first page of the report written by the C Company Commander, Captain H. E. Dickenson. It is one of a series written by all the company commanders of the battalion after their unit had been withdrawn from battle.

²⁴⁰ White, *Green Armour*, pp. 195-6.

²⁴¹ NAA, SP300/4, 321, 'New Guinea Report 1942 Most Confidential'. This file contains two reports, the first of which is Wilmot's six-page, 'Observations on the New Guinea Campaign August 26th – September 26th, 1942', which was written for Maj-Gen Allen upon Wilmot's return to Port Moresby.

Although it can be argued that Wilmot laid all the shortcomings he discerned in Australian preparations at Blamey's door, many 21st Brigade troops agreed with him that their introduction to Papua was disconcerting and confronting.²⁴² The responsibility for this lack of adequate jungle acclimatisation and training can be attributed to General Blamey and LHQ. As discussed in the previous chapter, the five months that the 7th Division spent training and on road works in NSW and Queensland would have been better spent in Papua.²⁴³ If the recently returned AIF troops had been able to practice patrolling and ambush technique in the jungle prior to deployment hundreds of casualties could have been avoided.²⁴⁴ Within days this lack of preparation became evident as the 21st Brigade's three battalions were successively fed into the bloody battles at Isurava and Brigade Hill.

Only days before they were to meet the Japanese at Isurava, the 2/14th Battalion's Intelligence party stopped at Eora Creek 'where the IO had interview with Capt Stevenson 39 Battalion (Ex-2/14th) and learnt something of Japanese war tactics'.²⁴⁵ On the same day Captain Bert Kienzle of the ANGAU passed on to the battalion as much information as he could on the terrain around the Kokoda area and of the recent fighting between the 39th Battalion and the advancing Japanese.²⁴⁶ The examination of a 30 Brigade sand-table model of the region around Myola-Kokoda provided additional information to the 2/14th Battalion companies as they marched towards

The above quote is taken from that report, page 4. The second six-page report discusses the removal of Wilmot's accreditation as war correspondent at Blamey's behest in October 1942.

²⁴² See, for example AWM, KMSA, Bob Innes, 2/27th Bn, Archive No. S902, Tape 2, side A: 'But yes, it was very hard, very difficult, and you didn't know who the bloody hell you were shooting at, or who was shooting at you either. See, we had no inkling of how to fight a jungle war'; and DVA, AAWFA, Lesley Cook, 21st Bde Signals, Archive No. 0804, Transcript, time: 7.09.30.00: 'You couldn't see, like the length of this room away, you couldn't see so far through the jungle...it's disconcerting to be in a place that you can't see. I was going to use the word nerve-wracking, but that's a little bit strong, probably. The stygian darkness is something that we aren't used to operating in'.

²⁴³ See, for example, DVA, AAWFA, Mason, 2/14th Bn, time: 4.32.00.00: 'Then they sent us to Queensland for three months! That's where I'm confused – three weeks in Adelaide, three months in Queensland. Three months in Queensland sitting on our backside doing absolutely nothing'. See, also Horner, *High Command*, pp. 215-219 & Uren, *A Thousand Men at War*, p. 115.

²⁴⁴ DVA, AAWFA, Eric Williams, 2/16th Bn, Archive No. 1117, time: 8.21.30.10, 'the desert is more open and I prefer the desert. You can see what is happening, the conditions are much better in the desert, the climate [too]'. This quote suggests that for at least some soldiers more or better training may not have helped. Most desert veterans compared the jungle unfavourable to their earlier campaigns.

²⁴⁵ AWM52, 8/3/14, 22 August 1942.

²⁴⁶ Ibid.

Kokoda.²⁴⁷ As they gradually became accustomed to the jungle, the men of the 21st Brigade were slowly learning lessons. To make movement at night easier some 2/14th Battalion troops picked up bark with phosphorus on it that glowed. Pieces of it were attached to the rear of each man's waistband, enabling those behind to see the faint glow in the pitch-black night as they stumbled forwards.²⁴⁸ On 26 August, near Isurava the advancing Japanese attacked the remnants of the 39th, and for the first time the 2/14th. From now on lessons would be learnt by the AIF troops 'under the worst possible scenario – in combat against the Japanese'.²⁴⁹

With the Japanese forces outnumbering the Australians, the newly arrived 2/14th Battalion rushed into action as soon as they arrived, generally by companies. Lessons were learnt, and then lost, as men were killed or wounded as quickly as they joined the desperate defence. The members of the 2/14th Intelligence Section moved rapidly around the battlefield, constantly updating the 'battle map' at battalion HQ.²⁵⁰ In less hectic circumstances they would have been able to collect valuable information on Japanese methods and tactics that would have eventually been passed rearwards to brigade or division to build up a more complete picture of Japanese tactical methods. During the maelstrom of fire at Isurava they were only able to pass on information regarding numbers of wounded and killed, ammunition states and desperate requests for assistance from platoons and sections threatened with being swamped by waves of Japanese.

For those who survived, the differences noted between combat in the jungle and the Middle East were profound. As the 18th Brigade at Milne Bay had discovered, foremost among these were the problems of visibility and observation. With their well-camouflaged uniforms and helmets the Japanese were extremely difficult to see. The 39th Battalion had discovered this in their initial contacts as Boland discussed:

On the left-hand side of the most distant visible point of the track, I saw a 'bush' move towards me. While I was concentrating on that 'bush' another moving 'bush' came into sight. But this 'bush' crossed to the other side of the track. I immediately realised that those two 'bushes' were the first and second scout of a Jap patrol. They were well-camouflaged in their jungle-

²⁴⁷ Lex McAulay, *Blood and Iron: The Battle For Kokoda 1942*, Milsons Point, NSW: Arrow Books, 1991, p. 126.

²⁴⁸ DVA, AAWFA, Thompson, 2/14th Bn, time: 6.17.30.00.

²⁴⁹ Moremon, 'Most Deadly Jungle Fighters?', p. 66.

²⁵⁰ McAulay, *Blood and Iron*, p. 139.

green uniforms with bits of shrubbery fixed to them, and when they paused they were very hard to detect against the background of vegetation bordering the track.²⁵¹

The newly arrived AIF units would have the same problems with regard to seeing the enemy. As White highlighted:

It was seldom that anyone got a glimpse of the enemy. Most of the wounded were very indignant about it. I must have heard the remark 'You can't see the little bastards!' hundreds of times in the course of a day'.²⁵²

For the combat-hardened 2/14th, the differences between their previous experiences in the Middle East and the impenetrable jungles of Papua were stark:

It was something quite new. In Syria you could see what was happening. You could see where the French were. Here you couldn't see a bloody thing.²⁵³

Conversely, 'AIF units were moved up the track with their badge of ME service, white hat band, white belt and white gaiters' and were easily seen, as they feared they would be.²⁵⁴ Even the faces of the Australians showed up stark white in the dim half-light of the jungle. As Mason noted 'After one day everyone knew it was best to rub mud on your face to get rid of that white glaring target'.²⁵⁵ Less than a month later the suggestion that 'green nets or veils should be worn to cover the face and the hands stained to match the woodwork of the rifle' would appear in training notes in Australia.²⁵⁶ Although these particular camouflage ideas would rarely be adopted in the field, it demonstrates that ideas from the frontline were beginning to filter rearwards.²⁵⁷

²⁵¹ Austin, *To Kokoda and Beyond*, p. 134.

²⁵² White, *Green Armour*, p. 197. There are numerous other similar examples of how difficult it was to see the Japanese troops in the jungles of Papua and New Guinea. See, for example, DVA, AAWFA, Eric Williams, 2/16th Bn, Archive No. 1117, time. 8.20.30.00: 'You 'Can't see anyone...you just don't see the baddies, you can hear them but you can't see them'; and DVA, AAWFA, Eric Sambell, 2/27th Bn, Archive No. 2231, time. 4.05.00.00: 'It was so pitch dark too in the jungle, you couldn't see'.

²⁵³ Lt-Col Phil Rhoden, CO of 2/14th Bn after the capture of Lt-Col Key, in Patrick Lindsay, *The Spirit of Kokoda: Then and Now*, South Yarra, Vic: Hardie Grant Books, 2002, p. 59.

²⁵⁴ Budden, *That Mob!*, p. 35. See also AWM, KMSA, Harry Katekar, 2/27th Bn, S903, Tape 2, side A, 5-10 mins: 'We in fact went into that action with desert clothing on...It was therefore easy to see our troops, because they didn't blend in with the surrounding green vegetation'.

²⁵⁵ DVA, AAWFA, Mason, 2/14th Bn, time: 6.05.00.00.

²⁵⁶ NAA, S459/1, 546/1/8498, 'Training Notes – Tropical and Jungle Warfare No. 1', p. 1.

²⁵⁷ Camouflage creams would be developed and, to an extent, used in later campaigns. In November 1942, the 17th Bde training at Milne Bay would be sent a 'green face dye for testing purposes'. It was found that it washed off in the rain, a distinct disadvantage in the tropics. Cited in AWM52, 8/2/17, 6 November 1942.

One seminal lesson from these early jungle warfare experiences that would be adopted and used in all subsequent jungle warfare training was the knowledge that actions unfolded at a far greater speed and at greatly reduced ranges than in the desert.²⁵⁸ With the impenetrable jungle at times making it difficult to see more than a few metres, the possibility of ambush was an ever-present threat that played on men's minds.²⁵⁹

Small arms ranges that required a soldier to make 'quick and accurate use of weapons when confronted with unexpected situations...observation...[and] silent movement in jungle'; these would become standard in all training establishments.²⁶⁰ As this report highlighted, by December 1942 various units and commands would begin to develop jungle warfare ranges. Headquarters Second Army would state that 'it is proposed to construct rifle ranges in selected close and rugged country for the purpose of training troops in jungle warfare'.²⁶¹ The various unconnected and disparate training methods which had attempted to teach these lessons – first developed by the 8th Division in Malaya, and later the 6th Division in Ceylon – would eventually culminate in the exhaustively detailed and physically demanding ranges and assault courses at the Jungle Warfare Training Centre, Canungra. That it would take the deaths in combat of dozens of soldiers for these innovations to be adopted is a telling indictment of the Australian Army's ability to assimilate lessons previously identified by several units.

Although the outnumbered 21st Brigade, along with the 39th and 53rd Battalions, were in great danger of being overrun by the advancing Japanese in August and early

²⁵⁸ See, for example, Givney, *The First At War*, pgs 243 & 273. The 2/1st Bn, part of the 16th Brigade which had trained on Ceylon believed that the training they had undertaken whilst there had assisted them once they arrived to participate in the Kokoda campaign. They had regularly practiced close-quarters contact drills.

²⁵⁹ Although night patrols in the desert were liable to stumble into ambushes or be fired upon when reconnoitring enemy defensive positions, this did not occur as frequently as unexpected engagements in the jungle. There was no relaxation of tension, whether during the day or at night. See, for example DVA, AAWFA, Sambell, 2/27th Bn, time: 4.04.30.00: 'Well I think it was much more nerve racking...you'd be fighting in close quarters, the enemy might only be five yards from you...New Guinea it was a lot more pressure on the individual man, when the enemy could bob up just there'.

²⁶⁰ NAA, SP1008/1, 538/1/311, 'Jungle Warfare – Construction of Rifle Ranges', 30 December 1942, p. 1. These types of small arms ranges continue to be an integral element of Australian, and in fact most modern, Army training courses.

²⁶¹ Ibid, Covering letter. The file included instructions on how to assemble the course and how students should be lead through it. Interestingly the instructions for the course were obtained during a 'recce of training areas constructed by 41 Div US Army at Rockhampton, Q'. As that US division had yet to see action, it is not known what sources they used to construct their rifle ranges.

September, it is arguable that more challenging tactical problems were posed once the Australians went onto the offensive. These would, to an extent, be exacerbated by the prior Middle Eastern experience of the 7th Division – and when they arrived in October – the 16th Brigade of the 6th Division. During the tactical withdrawal from Kokoda to Imita Ridge, whilst always under great pressure, and constantly threatened with encirclement, the battles were recognisable to the Australians.²⁶² The Japanese threw themselves at the Australian defences at Isurava and Brigade Hill with little apparent thought for their own lives, but they could be engaged with standard tactics. Although at times it seemed that each individual defensive position was ‘engrossed in their own little world, and did not know what the rest of the section was doing, let alone the platoon, company or battalion’, these battles were basically standard defensive infantry actions.²⁶³ The fact that ‘each section post had to be a veritable fort in the line of posts forming the battalion perimeter’ was not unique.²⁶⁴

The 18th Brigade and the 9th Division would have argued that their defence of the Red Line at Tobruk was fundamentally the same. What was different was the lack of observation and therefore the reduction in the ability of a commander to identify the main thrust of an enemy attack – or to identify enemy positions during an Australian attack – and then to direct and control his unit in response to that threat. As Laffin would state:

Control and communication were difficult unless close to it. Lt-Col Dunbar and his staff were right behind the leading company – much closer than would have been the case in Syria – but so fierce was the enemy’s fire and so dense was the jungle that they could not gain an accurate picture of the battle.²⁶⁵

Responsibility thus devolved to a lower level than had been the case in North Africa or the Middle East. Independent initiative and action would be more important in jungle warfare. As the 2/1st Battalion would enunciate in early October:

²⁶² Sublet, *Kokoda to the Sea*, p. 63. As Sublet highlights, with their superiority in numbers and support weapons, the Japanese were able to pin down the Australians while additional forces outflanked and then rejoined the Kokoda Trail further south, behind the Australians. To prevent being completely cut off and defeated in detail a fighting withdrawal was therefore the only course open to Potts.

²⁶³ McAulay, *Blood and Iron*, p. 145.

²⁶⁴ Burns, *The Brown and Blue Diamond at War*, p. 117.

²⁶⁵ Laffin, *Forever Forward*, p. 86. Dunbar was the CO of the 2/31st Bn.

CO pointed out to Coy Comds that they should adopt a Bn outlook as far as the defence of the Unit was concerned & it would be the responsibility (without waiting for orders) for a Coy Comd to patrol tracks in his area.²⁶⁶

The 18th Brigade at Milne Bay had discovered the necessity in jungle terrain for considerably smaller battalion and company defensive positions than had been normal in their earlier campaigns. The 25th and 16th Brigades would learn the same lessons. The need for modified defensive formations and perimeters in the jungle became clear as the campaign progressed. Eventually these lessons would be passed on to others back in Australia. For example, two company commanders of the 2/2nd Battalion would compile a 30-page report that would see wide distribution.²⁶⁷ Information and suggestions from it would also appear in *6 Aust Div Training Instruction No. 11 Jungle Warfare*, distributed in June 1943.²⁶⁸

The devolution of responsibility necessary in jungle warfare would eventually descend to the lowest level, the platoon commander, the section leader and ultimately, individual riflemen. As Charlton identified, this meant that jungle warfare was 'a war for and of the junior leaders'.²⁶⁹ The aforementioned 2/2nd Battalion report written at the conclusion of the first Papuan campaigns would further highlight this:

The impetus of an attack depends almost entirely on the Sec Leader who must use far more initiative and accept far more responsibility than in open country warfare.²⁷⁰

Coombes would go further, arguing that,

Because of the unfriendly conditions [in jungle warfare], junior officers and NCOS had to make tactical decisions, virtually on the spot, while – theoretically at least – corps commanders had little control over a battle once it had begun.²⁷¹

²⁶⁶ AWM52, 8/2/1, WD (Supplementary), 9 October 1942.

²⁶⁷ AWM54, 937/3/7, 'Notes on the New Guinea Campaign, Aspects of the Campaign', 8 February 1943. The covering note states that these notes 'have been approved for issue to the Army (in due course) in suitable form. Pending such promulgation the material as it stands is now made available for the information of Commanders concerned'. 50 copies of the report were sent to Col C. M. Lloyd Elliot at DMT for distribution, demonstrating that it was seen as valuable.

²⁶⁸ This large training manual will be discussed in detail in chapter six.

²⁶⁹ Peter Charlton, *The Thirty-Niners*, Melbourne: The Macmillan Company, 1981, p. 229. See also AWM54, 579/6/5, 'Operation Milne Bay 24/8/42 to 8/9/42, Lessons from operations No. 2', 28 Oct 42, p. 2, [In jungle warfare]: 'Much will, of necessity, depend on the initiative of junior leaders'.

²⁷⁰ AWM54, 937/3/7, p. 1. See also AWM254, 169, 'Suggestions for the training of infantry companies in jungle warfare gained from experiences by Major I. B. Ferguson in the advance from Templeton's Crossing to Buna. Sep-Dec 1942'.

²⁷¹ Coombes, *Morshead*, p. 167.

This recognition of the tactical difference to previous combat, would find its way into subsequent training manuals and syllabi that emphasised the importance of individual and section training.²⁷² Before this could occur, the 21st Brigade would have to survive the ferocious Japanese assaults at Isurava and Brigade Hill.

While the lack of entrenching tools forced the Australians to dig in with helmets, bayonets and hands, once in their defensive positions they were able to slaughter the tactically naïve Japanese, as long as they had sufficient men and ammunition remaining. As the Intelligence Officer of the 21st Brigade noted on 13 September, 'the Jap has little initiative or subtlety. He is content to batter his way through by superior numbers, and hits every head he sees'.²⁷³ Neither Japanese jungle warfare training or tactics were the main reason the Australians were forced to retreat to Imita Ridge; sheer weight of numbers and paucity of supplies played a telling part.²⁷⁴ Admittedly, the ferocity and drive of the Japanese forces who advanced at all costs and refused to allow the Australians to regain their footing once they were off balance was also an important factor.²⁷⁵ Whilst being forced back, however, the 7th Division, as had the 8th Division in Malaya, began to realise that the Japanese were not supermen and 'confidence in their individual superiority over the Japanese' grew.²⁷⁶ The repetitive nature and lack of variety in the Japanese methods led the 2/14th to note that 'the enemy was adopting his usual tactics, pressure on the front coupled with an outflanking movement'.²⁷⁷ As the withdrawal continued, 'heavy casualties were inflicted on the eager and impetuous enemy as he pushed up the single track trying to regain contact with our troops'.²⁷⁸

Similarly, when the Australians went over onto the offensive they discovered that frontal attacks in jungle posed great difficulties, as they ran into well-concealed

²⁷² See, for example, *Tropical Warfare* (Aust), Pamphlet No. 2 1945 – Notes for Junior Leaders, Melbourne: AMF, 1945, p. 23. Individual and section training had, of course, always been important elements of any Australian Army training program. The nature of tropical jungle, however, increased the need for exceptionally well-trained and skilful soldiers at all levels, particularly the most junior.

²⁷³ AWM54, 923/2/25, 'Notes on Japanese Tactics' by Lieutenant R. W. T. Cowan IO 21 Aust Inf Brigade' Aug 26 – 13 Sep, p.2.

²⁷⁴ As discussed in chapter 2, at the time many of the Australians believed that all Japanese troops had extensive training and combat experience in jungle terrain. See pages 41-2 for further information.

²⁷⁵ AWM54, 923/5/25, 'Notes on Japanese Tactics', p. 3.

²⁷⁶ Sublet, *Kokoda to the Sea*, p. 81.

²⁷⁷ AWM52, 8/3/14, 8 September 1942.

²⁷⁸ Uren, *A Thousand Men at War*, p. 139.

enemy defences.²⁷⁹ The difficulties of ‘observation of the enemy and mutual support’ provided a great contrast to the desert war.²⁸⁰ Although it was not recognised at the time, attacks like the above would be a precursor to the reversal of roles once the Japanese were halted and forced back along the Trail from Imita Ridge, eventually to the beachheads. Unfortunately they would also see the Australians lose many men attacking well camouflaged and strongly held positions, where the problems of observation and mutual support would come to the fore.

‘Making Slow Progress’: Ioribaiwa to the Beachheads

Before the long and arduous advance over the Trail occurred, the first lessons of the campaign were beginning to filter back to New Guinea Force HQ in Port Moresby and thence to LHQ in Melbourne. Even as the 21st Brigade desperately defended Mission Ridge and Brigade Hill in early September, notes on tactics were being collected. Among the first of them were a number from an unusual source, the journalist Chester Wilmot. Lt-Gen Rowell, who had been appointed to replace Morris at NGF HQ in mid-August ‘arranged for a party comprising White, Wilmot and Parer to go forward to Myola to get and give a first hand picture of what was happening’.²⁸¹

On 4 September:

Chester Wilmot (ABC War Correspondent) who has just returned from the Myola area interviewed Comd 7 Aust Div and passes on information from talks with bn comds and from his own observations.²⁸²

The six-page report that Wilmot provided for Rowell in late-September would eventually see wide distribution. Before this could happen, however, a temporary return to the issuing of irrelevant and outdated training information would occur. This demonstrated that learning and adaptation were not linear. The day after Wilmot’s meeting with Rowell and Allen in Port Moresby, 7 Australian Division re-issued

²⁷⁹ AWM52, 8/3/16, 8 September 1942. Two companies of the 2/16th and one of the 2/14th attacked dug-in Japanese positions and the attack failed.

²⁸⁰ Russell, *The Second Fourteenth Battalion*, p. 133.

²⁸¹ Rowell, *Full Circle*, p. 126. Rowell and Wilmot had met previously in the Middle East, and again during the Greek campaign. Exactly why Rowell should rely on a civilian to collect tactical and operational information for him is not completely clear, but is discussed in greater detail in McDonald *Damien Parer’s War*, p. 207. Rowell’s ADC, Lt Darling claims that one reason was that Rowell ‘didn’t have a full corps command and only one liaison officer... These boys [Wilmot and Parer] were so much more alert and fit, and had some military nous’.

²⁸² AWM52, 1/5/14, 4 September 1942.

‘Warfare in Thick Country’ to all units under its command, AIF and Militia.²⁸³ This training instruction had been the first one issued – on 2 March – by 7th Division upon its return to Australia from the Middle East. Apart from the deletion of one paragraph, the four pages were completely unaltered. Why this report, based almost solely upon Malayan experience, should be re-released at the exact moment the Australian forces were fighting in terrain markedly different to Malaya is difficult to comprehend. The only explanation appears to be that, as yet, no new training notes or memoranda had been forthcoming from the current battles. That would change on 12 August 1942.

On that date the first of several official reports written by Wilmot would appear. In his role as a journalist for the ABC and BBC Wilmot had, of course, written numerous despatches. During the period from August to September more than a dozen of these would be broadcast. Each one became increasingly more scathing of the lack of training and preparedness of the Australian Army for jungle warfare, and increasingly critical of army higher authority, especially General Blamey.²⁸⁴ While the disagreements between Blamey, Rowell and Wilmot are not especially relevant to this thesis, the report dated 12 September is.²⁸⁵ This report, which was a compilation of his despatches for August and early September, was ‘issued for information and guidance in training, and for distribution down to units’.²⁸⁶ With a subtitle of ‘Training Instruction No. 4, 2nd Aust Army,’ and the fact that it was issued to all units under command of 2nd Australian Army, the importance Rowell and Allen attached to it was clear.²⁸⁷ Nevertheless how widely the report was circulated is difficult to determine. The 7 Division commander, General Allen:

Sent a copy to the Corps Comdr, Gen Rowell, who also promulgated them in his corps. He in turn sent copies to advance Land HQ in BM, who

²⁸³ AWM52, 1/5/14, ‘Warfare in Thick Country’ 7 Aust Div Tng Instn No. 4, Appx F, 5 September 1942. This training note was discussed in greater detail in the previous chapter.

²⁸⁴ The full collection of his wartime despatches – of which there are approximately 300 – are held at the Sydney branch of the NAA. SP 300/4 ‘Chester Wilmot Files’. Transcripts of broadcasts which discuss the problems of the Kokoda Track include: SP 300/4, file 175 ‘Japanese Tactics In New Guinea’ dated 12 August 1942; file 178 ‘Japanese Mastery Of Movement’ 6 September 1942 and file 182, ‘Japs Are Not Supermen But They Went To School’, 21 September 1942.

²⁸⁵ See especially David Horner, *Crisis of Command: Australian generalship and the Japanese threat, 1941-1943*, Canberra: ANU Press, 1978 for further information on the leadership problems.

²⁸⁶ AWM54, 923/2/29, ‘Broadcast by Chester Wilmot, ABC, on Japanese tactics in New Guinea’ September 1942.

²⁸⁷ Ibid, cover note.

prepared notes there from for issue to AIF., but I understand that the C-in-C., on learning their origin (Chester) cancelled the issue.²⁸⁸

Long stated that twenty-seven copies were made and distributed before Blamey learnt of the author's identity.²⁸⁹

With the publication of this training instruction a regular, if not yet voluminous, series of after action reports began to be distributed. Two weeks later Wilmot would compile a more comprehensively detailed document that Allen and Rowell would also issue. *Observations on The New Guinea Campaign*, and its criticism of Blamey, would see the journalist's accreditation removed, but would be widely distributed throughout Australia.²⁹⁰ At the same time as Wilmot's second report was being issued, LHQ published its first *Training Notes* on jungle warfare.²⁹¹ It would be followed two weeks later by a second training note. The list of recipients encompassed every headquarters, unit and training establishment in Australia. The cover note made it clear that the Army was still hesitant to have established doctrine altered to meet the new situation. It did, nevertheless, demonstrate that the new paradigm was causing concern that required guidance and instruction:

Whilst these notes are not to be taken as an authority to supersede training doctrines contained in official textbooks, they should be read in conjunction therewith and steps taken to ensure that the lessons set out are brought to the notice of all concerned and implemented where necessary.²⁹²

The first attempts at developing training ideas based upon combat experience in jungle terrain had begun. With the withdrawal of the 21st Brigade from the frontline this process would gather momentum.

²⁸⁸ 3DRL, 4142, file 7 of 9, item no. 38-39, letter from Gen Allen to Raymond Paull, Tuesday 11 November 1947.

²⁸⁹ AWM67, 1/9 Gavin Long Diary No. 9, 4 Oct 42 'TAB (General Thomas Albert Blamey) ordered that every copy be recalled. Young Wynter reports that only three of the 27 copies have in fact been returned and the owners of these made copies first'.

²⁹⁰ NAA, SP 300/4, 321, 'New Guinea Report 1942 Most Confidential', *Observations on the New Guinea Campaign* August 26th – September 26th 1942 by Chester Wilmot. Despite Blamey's attempts to have Wilmot's report 'killed' copies of it – and the broadcasts that were used to compile it – appear in various archives. As well as those files already discussed see, AWM54, 923/1/7, Appx B to Aust 7 Div, 'General Willoughby's Dispositions' which actually contains a copy of one of Wilmot's August broadcasts. See also, AWM52, 8/2/18, with a cover note stating that 'The following extracts from Notes On Japanese Tactics – Kokoda Area 42 (prepared by C Wilmot) are issued for information', demonstrating that his notes were distributed across 7 Division at the very least.

²⁹¹ NAA, S459/1, 546/1/8498, 'Training Notes – Tropical and Jungle Warfare No. 1', 23 September 1942. This brief two-page document contained lessons on patrolling, camouflage and noise discipline and was based upon lessons learnt at Milne Bay and the Kokoda Campaign.

²⁹² NAA, 3549/1, 546/1/8510, 'Training Notes – Tropical and Jungle Warfare No. 2', 6 October 1942.

Beginning in mid-September, the remnants of 21st Brigade were withdrawn to Port Moresby as the 25th and, soon after, the 16th Brigades arrived to relieve them. By 25 September, the three battalions of the 21st Brigade were in camp at Koitaki. Little time was available for rest and recuperation, however, with training detachments being sent to Militia, AIF and US Army units within days. 2/16th Battalion recorded that:

Tps take part in demonstration of Jap tactics for 36 Bn...Capt O'Neill and party left biv area to be attached to US Army for 5 days. Capt Sublet & party to 16 Bde. Both parties to pass on information gained during recent operations.²⁹³

The 2/14th would send similar detachments to the US 126 Regiment, and also to the 2/1st and 2/2nd Battalions of 16th Brigade.²⁹⁴ The 2/1st recalled that 'they gave valuable talks on Jap tactics and what kind of country we could expect'.²⁹⁵ Unfortunately the situation on the Kokoda Track cut short this period of training and acclimatisation, as it had for the 21st Brigade in August.

A day after they had arrived at Port Moresby, the 16th were ordered forward. They were nevertheless slightly more fortunate than the 25th Brigade who, arriving before the 21st were withdrawn, did not have the benefit of the lectures the 16th received.²⁹⁶ Both Brigades were in turn more fortunate than the 21st, as they were at least 'issued with greens and Yankee gaiters...[the 25th being the] First Bde to make use of Green KDs'.²⁹⁷ As Crooks stated:

In an atmosphere of urgency we hurried about sorting stores, issuing ammo and changing our khaki drill for green-dyed drill, the first AIF troops to do so. These greens were being dyed in Sawyer stoves which had been set up by 21st Brigade men, supervised by Aust Army Ordnance Corps men. One simply stripped naked, moved over to a Sawyer issue point, dumped one's own khakis, picked up equivalent sizes, wet or dry, and put them on.²⁹⁸

Even though, as discussed earlier, General Blamey remained at this juncture unconvinced of the need for jungle green uniforms, HQ 7 Division had issued orders

²⁹³ AWM52, 8/3/16, 26 and 28 September 1942.

²⁹⁴ AWM52, 8/3/14, 28 September. As the WD entry for the 28th states 'all these groups were to instruct on lessons learnt in the campaign against the Japanese. Duration of the detachment was to be 3 to 4 days'.

²⁹⁵ Givney (ed), *The First at War*, p. 254.

²⁹⁶ AWM52, 8/2/25, 11 September.

²⁹⁷ AWM52, 8/3/25, 11 September.

²⁹⁸ Crooks, *The Footsoldiers*, p. 144.

that all uniforms be dyed before the 25th, and subsequent brigades, went into action.²⁹⁹ The 16th Brigade would record that their newly camouflaged jungle green uniforms and helmets 'looked very effective and blended in well with the surrounding country'.³⁰⁰ Other innovations would see some units acquire green paint, which they used to camouflage their rifles and Bren guns.³⁰¹

Other changes were in progress, with the 2/33rd Battalion taking one Vickers MMG with them, in contrast to the 21st Brigade a month earlier.³⁰² When the 16th Brigade arrived two weeks later, the support weapon situation had changed again, and the 2/1st Battalion took both a Vickers and a 3-inch mortar.³⁰³ Reports written at this time by the survivors of the 21st Brigade argued for an 'increased use of long range close support weapons – 3" Mtr and Vickers', clearly signifying that the decision to leave them behind in August was a mistake.³⁰⁴ It is unlikely, however, that 16th or 25th Brigade Commanders would have received these recommendations prior to their departure for the frontline. The reasons behind the decision to take the support weapons is therefore open to conjecture, but can probably be attributed to discussions between respective units. These examples demonstrate one of the key elements of jungle warfare learning in this period: its fluid and ever-changing nature. As with most of the changes, these came about because of experience at the frontline that was passed onto those who followed, rather than due to orders from above.

Soon the 25th and then the 16th Brigades would face the same problems as the 21st Brigade and the militia units before them. Although slightly better forewarned, they too would have to learn most of their initial lessons in jungle warfare tactics in

²⁹⁹ AWM52, 1/5/14, 8-28 September, Appx H 'Notes on Ops 25 Aust Inf Bde' especially statement that 'all arrangements had been made prior to the arrival of 25 Aust Inf Bde to equip units with green clothing, gaiters etc'. See also, Crooks, *The Fightsoldiers*, p. 146 in which he discusses the fact that C Company of the 2/33rd were on patrol when the dyeing took place and therefore missed out on receiving green uniforms until they reached Kokoda, almost two months later.

³⁰⁰ AWM52, 8/2/16, 28 September 1942.

³⁰¹ DVA, AAWFA, William Booth, 2/3rd Battalion, Archive No. 1420, Transcript, time: 2.32.00.00.

³⁰² Crooks, *The Fightsoldiers*, p. 145.

³⁰³ Givney (ed), *The First at War*, p. 254. See also AWM52, 8/3/1, 2 October. The WD entry states that the battalion carried two Vickers forward to Subitana by mule. It is unclear whether the second MMG actually made it forward of the trailhead.

³⁰⁴ AWM52, 8/3/14, 'Reports on Operations In New Guinea' 28 Sep 42, p. 5. Each Company Commander compiled a report on the campaign and included suggestions for future operations. This report was written by Capt W B Russell of HQ Coy, 2/14th Bn.

combat, suffering accordingly.³⁰⁵ At least some of these problems could have been avoided according to Sublet:

Brigadier Potts would have been a better source of information as to enemy strength, capabilities and methods, than Allen or Rowell...[But] Eather passed up the opportunity to hear Potts' story when the two passed on the track.³⁰⁶

By this omission he thereby deprived his brigade of answers to some of those problems. One other valuable source of information also appears to have been under utilised. Upon his return to Port Moresby:

Arnold [Potts], Ken Murdoch and others on the bde staff prepared a full report for hq, believing their recent experiences on the Track would provide invaluable information for other tps engaging the Japanese.³⁰⁷

The comprehensively detailed and astute 'Report on Operations – 21 Aust Inf Bde Owen Stanley Campaign' was sent to NGF HQ but promptly returned for corrections – that were unspecified.³⁰⁸ 21st Brigade polished the report once more and then forwarded it to Advanced LHQ in Brisbane but once again 'it was sent back with orders to condense its contents and emphasis'.³⁰⁹ This instance concurs with Brune's statement that there is 'no evidence that the Australian Army sought out or learnt more than a thread of information from Rowell, Allen or Potts'.³¹⁰ It is plausible that they – like Bennett after Malaya – were too tainted in the eyes of their superiors, especially Blamey, that anything they had to pass on was therefore equally tainted.³¹¹

As the Japanese retreated one of the traditional military theories came into sharper relief:

That an attacker had to have a superiority of 2 or 3 to 1 over well prepared defenders to have any chance of success. The attacker would also sustain two or three times the casualties of the defenders.³¹²

³⁰⁵ AWM52, 8/2/16, 5 Oct 42. 'On this day Brigade HQ stopped and had a discussion with Brigadier Eather and his HQ on the fighting and any lessons that may be of value.'

³⁰⁶ Sublet, *Kokoda to the Sea*, p. 83. As Potts have been recalled to Port Moresby, having effectively been sacked, it is perhaps not surprising that the two men, one moving forward with anticipation and the other back with despondency and indignation, would not stop to discuss the tactical situation for any great length of time.

³⁰⁷ Edgar, *Warrior of Kokoda*, p. 183.

³⁰⁸ Ibid, p. 183. This 68-page report covered all aspects of the 21st Brigade's campaign and made many valuable suggestions for future operations.

³⁰⁹ Brune, *Those Ragged Bloody Heroes*, p. 207.

³¹⁰ Ibid, p. 207.

³¹¹ As the 16th and 25th Brigades were advancing rather than retreating, as the 21st Brigade had been, and were therefore faced with different tactical problems, it is possible that any suggestions Potts would have been able to make were felt to be of little value. My thanks to Mark Johnston who posited this in email correspondence on 23/5/07.

³¹² Ross, *Armed and Ready*, pp. 420-1.

In the jungle this maxim was if anything even more apposite. The issue had not often confronted the 21st Brigade, who had been able to mow down the attacking Japanese who were often not able to see the Australian defensive positions. The situation was now reversed:

You knew they were there and you just fired your machine gun in there, well they did the same with us. But when we were attacking all the time we were more visible than they were.³¹³

And being more visible in the jungle meant you were more likely to be shot. The 2/33rd Battalion would find themselves confronted with similar problems. During an advance near Templeton's Crossing:

Lt Marshall...was endeavouring to co-ordinate his attack but the jungle was so thick and most of the men crawling and manoeuvring about, it was difficult to control. Few of his men really could be seen at all.³¹⁴

Not only was it more difficult to see the enemy in jungle warfare, and therefore harder to provide suppressive covering fire during an attack, once your own men disappeared into the jungle during an attack, command and control virtually disappeared also. Days later the 16th Brigade joined the 25th. One of their battalions would plaintively state that:

We could not see the Jap positions so could only support the 2/2nd Battalion attack with mortar and lmg fire. This called for great care, for, although the enemy were only 40 to 60 yds in front of our positions, we could not see them nor could we see the progress of the 2/2nd Battalion which was to advance across our front.³¹⁵

Even when firing upon an identified Japanese position the effect of that firing could often not be judged:

The first shots I ever fired, it was at a place because they said the Japs are in there at that spot and everybody opened fire at this spot where it was, but they don't know if they killed anyone.³¹⁶

Although his criticism is restrained, McCarthy is one of the few who has questioned whether the tactics utilised by the 16th and 25th Brigades in their advance were appropriate. He asked:

How effectively had Lloyd's men met the comparatively new challenge of ideally sited mountain defence? Certainly with courage and energy, as witness their frontal attack over the bridges [at Eora Creek] which their

³¹³ DVA, AAWFA, Gilbert Simmons, 2/25th Bn, Archive No. 1186, Transcript, time: 8.12.00.00.

³¹⁴ Crooks, *The Footsoldiers*, p. 203.

³¹⁵ Givney (ed), *The First At War*, p. 262.

³¹⁶ DVA, AAWFA, John Lupp, 2/1st Bn, Archive No. 0125, Transcript, time: 4.34.30.00.

enemies were sited to command. But it seems possible now that, in manoeuvre, there was more courage and energy than skill.³¹⁷

This lack of skill can be directly attributed to largely incorrect training locations, inadequate time for acclimatisation and most importantly, inappropriate doctrine. Tactics that had worked in the Western Desert, Greece, Crete and Syria now had to be revised, as they were causing unnecessary casualties and proving ineffective. With support weapons cut to a minimum, visibility measured in yards instead of miles and an enemy prepared to die at his post, standard open warfare tactics of charging an enemy position under covering fire, were almost suicidal.³¹⁸ Reconnaissance patrols sent to identify Japanese machine-gun positions and to 'feel' for gaps in the Japanese fixed defences, outflanking movements that would be hidden behind the jungle screen, and a more painstaking build-up were necessary for success – and would have lessened casualties. The belief that little real change was required to succeed in thick jungle was being proven wrong.³¹⁹

Notwithstanding these problems, as the Japanese continued to be forced back northwards towards Buna, lessons were gradually being learnt and assimilated. Some of these lessons were as simple as the fact that while the thick jungle screen often prevented the Australians from seeing their enemy, with experience they were able to smell them.³²⁰ The need for shorter length – and therefore more manoeuvrable – weapons also became apparent. McRostie was not alone in arguing that the issue .303 Lee Enfield rifle was 'too tangly in the jungle'.³²¹ A report written after the Beachhead campaign was concluded reiterated this point.³²² It would, however, take more than two years for substantial change to come about, with the British Army

³¹⁷ McCarthy, *South-West Pacific Area*, p. 306. Lloyd was the 16th Brigade commander.

³¹⁸ As discussed by Major Robertson on page 198 of this chapter.

³¹⁹ Laffin, *Forever Forward*, p. 97. On this page Laffin argues that rather than adapting or changing their tactics after their initial jungle experiences, the 2/31st were relieved that from the Gorari battle onwards the more open terrain meant that 'the companies and platoons were able to support one another in the traditional infantry way'.

³²⁰ DVA, AAWFA, Colin McRostie, 2/6th Field Ambulance and later 2/16th Bn, Archive No. 1237, time: 5.19.30.00.

³²¹ Ibid, time: 5.25.00.00. See, also DVA, AAWFA, Ian King, 2/33rd Bn, Archive No. 0132, Transcript, time: 1.23.00.00, 'I found that when I did get into the jungle, that I hated the .303 rifle...it was always in the way, it wasn't a great deal of use at close range and in the jungle you're at close range most of the time'.

³²² AWM54, 581/7/31, Part 2 of 2, 'Report on Operations, 18th Infantry Brigade', January 1943, War Establishment – Stretcher Bearers, p. 1. The report argued that stretcher-bearers 'should be issued with Owen guns in place of rifles which proved a great handicap to their work under jungle conditions'.

eventually issuing a modified – lightened and shortened – Lee Enfield for jungle warfare.³²³ Other troops would find that in the jungle cigarette smoke would be a telltale giveaway, alerting them to the presence of the unseen enemy.³²⁴ Eventually the lessons of using all of one's senses, including the olfactory – as with those lessons on tree snipers, fire-lanes and Japanese hiding amongst the dead – would find their way into the syllabus at Canungra.³²⁵

Before then the 16th and 25th Brigade would come to the realisation – as the 21st and 18th had before them – that their previous combat experience, and their training in Australia had not adequately prepared them for the Japanese or the terrain.³²⁶ The CO of the 2/33rd Battalion in particular was scathing:

During the month this Bn has been called upon to carry out action against the enemy over mountainous country for which we had not anticipated and had therefore not trained. From pamphlets and officers in Australia we had been badly instructed and misguided.³²⁷

This assessment supports the main contention of the previous chapter. Few lessons were learnt from the Malayan experience and the training undertaken in Australia prior to their deployment to Papua made the troops physically fit but did very little to improve their tactical knowledge or ability to manoeuvre in the jungle.³²⁸ Adequate preliminary reconnaissance of the Kokoda Track and Milne Bay areas, during the months before the Japanese landed in July and August, would have enabled units to modify uniforms, equipment, weapons – and more importantly – tactics and training methods. This would have resulted in many fewer casualties since the basic problems

³²³ AWM54, 49/1/3, 'Tests of Equipment...Lightened Rifle (Aust) No 1 Mark III in Jungle Warfare', July 1945. This file contains information pertaining to the Australian testing of what would eventually become known as the 'Jungle Carbine'. Several of them were issued to AIF and Militia units for testing in training and combat a few months before the war ended. They would see service in the Malayan Campaign, 1948-1960.

³²⁴ DVA, AAWFA, Frederick Williams, 2/2nd Bn, Archive No. 0780, time: 6.31.00.00.

³²⁵ 3DRL/6599, 'Aust Trg Centre (Jungle Warfare) – Canungra, Trg Syllabus Precip' & Instructions', Serial No 62 'Jungle Fighting', p. 2. 'The Jap is often a noisy stinker...but you must go out and hear him and smell him'. This copy of the Canungra syllabus is from February 1945, and therefore incorporates several years' worth of experience, learning and training.

³²⁶ Barter, *Far Above Battle*, p. 180. In this passage a member of the 2/2nd Bn watched Damien Parer's *Kokoda Frontline* at the cinemas prior to departure for Papua. Witnessing the conditions he purchased several items that would later make his trek over the Track more bearable – including knee-length gaiters and a warm jacket. This begs the question as to why similar measures were not made on a unit or brigade-wide scale.

³²⁷ AWM52, 8/3/33, 'General Notes', September 1942 WD.

³²⁸ Later in the same entry the CO did state that 'although the time has been short it can be said that the unit has quickly adapted itself to this type of jungle fighting'. This says more about the ability of the units to quickly adjust and adapt to the new paradigm than it does about their prior training.

of operating in jungle conditions – observation, movement, command and control in particular – would have been addressed before units were flung ill-prepared into combat. This was true of all combat arms, as well as the combat support arms, such as signals.

‘Linesmen wallowing in mud’: Signals

One of the most important tasks in warfare – which was made immeasurably more difficult in the jungles and swamps of the South West Pacific – was that of maintaining communication. From Corps through Division down to the section level, communication, and thus control, faced previously unforeseen challenges. According to Dimmack ‘conditions could hardly have been worse for the installation and maintenance of all kinds of communications’.³²⁹ Commanding officers – at all levels – were faced with the problem of issuing orders to units they could not see, even though they may have been only 100 metres apart. While the mountainous terrain of Syria had posed problems for all involved and ‘for the signallers the campaign had been a nightmare’, those difficulties paled into insignificance a year later on the Kokoda Track and at Milne Bay.³³⁰

Although the great distances in the desert war, and even the Greek campaign, made the laying and then collecting of signal cable a formidable task, generally signals equipment was carried in a vehicle.³³¹ Clearly the lack of roads on most South West Pacific islands made this impossible. In the jungles of New Guinea and Papua the terrain and climate were the two immutable variables. The appalling climate, especially high temperatures, rainfall and humidity combined to rapidly deteriorate delicate electrical, wireless and cable equipment.³³² At the same time the terrain prevented the use of vehicular transport and meant that ‘excessive handling’ of that

³²⁹ Max Dimmack, *Signals of the Silent Seventh: A Short History of Signals 7th Australian Division, 2nd AIF, 1940-1945*, Sassafras, Victoria: Benchmark Publications, 2001, p. 58.

³³⁰ Russell, *The Second Fourteenth Battalion*, p. 81. See also Crooks, *The Fightsoldiers*, p. 78.

³³¹ Clift, *War Dance*, p. 126: ‘Communication was also a great difficulty. The amount of cable on the Battalion establishment was quite inadequate although it had been supplemented to some extent through the resourcefulness of the Battalion signal platoon by signal line captured from the Italians in the desert. See also, DVA, AAWFA, Frank Patterson, 7 Div Sigs, Archive No. 0193, time: 4.26.00.00, for detail on signals vehicles in the desert.

³³² Theo Barker, *Signals: A History of the Royal Australian Corps of Signals 1788-1947*, Canberra, ACT: Royal Australian Corps of Signals Committee, 1987, p. 170.

delicate equipment caused daily maintenance problems.³³³ Combined with these problems, and common to all operations in the SWPA, was the problem of logistics, which no corps could escape:

By the latter half of the war, satisfactory supplies of most stores were available but transport in the islands continued to be a major difficulty and was never effectively overcome. The extent of the problem may be appreciated by realising that 19 native carriers were needed to move one complete Wireless Set 109 together with its batteries, charger, oil, petrol and acid.³³⁴

When those difficulties could be overcome the mountainous terrain, torrential rainfall and thick towering jungle canopy greatly reduced the effectiveness of wireless or radio reception, and forced the increased use of cable and, to an extent, despatch runners.³³⁵

During later campaigns, technological advances meant that the effectiveness of signal and wireless communication increased greatly. Notwithstanding this, traditional methods such as line, and even carrier pigeons would continue to be used until the cessation of hostilities. Signalmen on the Kokoda Track struggled in horrendous conditions to keep the lines operating, as they were:

Required to check and repair lines when breaks occurred, often at night, in bad weather, and at times under possible danger from enemy patrols or enemy parties who had cut the line. B Section linesmen frequently were wet through, living in wet clothes for prolonged periods, and often in mud up to their knees. Not only did they have the mud and jungle to contend with: fast-flowing streams also presented hazards. Linesmen were required to wade waist-deep through these to lay and repair lines.³³⁶

With cables and lines constantly breaking, whether due to enemy action, trees falling across them, being washed away in flash floods, broken by vehicles or trampled underfoot by exhausted infantrymen, repair parties were constantly required to slog up and down miles of mud-choked jungle tracks searching for the break. These parties 'must always be prepared to take immediate action' as the same Japanese line cutting

³³³ Ibid, p. 170. For similar problems see Dimmack, *Signals of the Silent Seventh*, p. 58.

³³⁴ Barker, *Signals*, p. 170.

³³⁵ DVA, AAWFA, Neville Lewis, 2/33rd signaller, Archive No. 1636, time: 2.28.00.00: 'We discovered when we got into New Guinea and into the jungle that 200 yards was as good as the wireless could give you so we never used them much, we relied on phones'.

³³⁶ Dimmack, *Signals of the Silent Seventh*, p. 70.

parties would often be waiting to ambush the line parties.³³⁷ For signalmen at Milne Bay and the Beachheads, the vicious red ants that infested the tops of coconut trees were an inducement to complete the hanging of signal line as quickly as possible.³³⁸ Although they appeared an anachronism on the modern battlefield, carrier pigeons regularly accompanied patrols and forward troops who had no other means of communication with their headquarters. This would occur until the end of the war in the jungles of New Guinea, Bougainville and New Britain.³³⁹

Another standard option for commanders unable to communicate by wireless or radio was the despatch rider. Similar to the laying of cable in the Middle East, the distances that despatch riders had to travel were frequently great, but they paled into insignificance with the challenges of the tropics.³⁴⁰ During the Wau-Salamaua campaign 'any means had to be employed [including] pedestrian despatch riders, native policemen, motor cycles, jeeps, transport or fighter planes and barges...one brigade was served by outrigger canoe'.³⁴¹ At the unit and sub-unit level the use of section, platoon and company runners, especially during an engagement, was an established tactic. In jungle warfare it became even more necessary as the refrain 'communication possible between coys only by runners' became standard.³⁴² Often targeted by the enemy, runners were in regular danger. During jungle warfare, however, the role was frequently a death sentence, as many units discovered. In July 1942 Captain Bidstrup of the 39th Battalion:

Decided to withdraw rather than run the risk of enemy infiltration and further casualties. He sent a runner, Pte E. Josch, to contact Sgt Marsh to tell him of his decision. But Josch failed to return. Another runner, Pte T. Freestone, was sent out but he too disappeared in the intervening sixty yds of jungle.³⁴³

³³⁷ AWM54, 577/7/29 Part 18, 'New Guinea Force Report Signal Communication Buna – Kokoda – Sanananda' 21 July 42 – 22 Jan 43, p. 7.

³³⁸ DVA, AAWFA, Archie Allaway, 2/12th Bn, Archive No. 0545, time: 9.32.00.05, 'We had spurs to climb the coconut palms, I had to get up, right near the tops, you'd hook some of the wires up, there were big ants, red ants they bit the hell out of me while I was up there'.

³³⁹ See the discussion on the establishment of the Australian Pigeon Service in 1942 in Barker, *Signals*, pp. 145-6. Australian units had, to a limited extent, used British carrier pigeons in their Middle East operations, but the multitude of small islands in the Pacific theatre, combined with the difficult terrain, greatly increased the demand for pigeons. See Briggs, *Ike's Marines*, p. 180 for information on detached patrols on New Britain who found pigeons the only possible means of communication with battalion headquarters.

³⁴⁰ For problems of despatch riders in Syria, see Dimmack, *Signals of the Silent Seventh*, p. 45.

³⁴¹ Barker, *Signals*, p. 262-3.

³⁴² AWM52, 8/6/1, 2/1st Australian Pioneer Battalion, 11 September 1942.

³⁴³ Austin, *To Kokoda and Beyond*, p. 106.

The AIF would experience the same problems, with many runners simply disappearing never to be seen again, while the bodies of others would be found horribly mutilated days or even weeks later.³⁴⁴ Although it became less prevalent, the disappearance of runners, even when covering remarkably short distances, would continue until the end of the war. The lack of visibility and the need for the runner to relay his message quickly made their task immeasurably more dangerous in jungle warfare.

What these various methods all had in common was the time it took for them to be transmitted, whether from a platoon in action to company headquarters only two hundred metres away, or from a unit back to its headquarters. Control was thus reduced, as by the time a despatch arrived – if it arrived at all – and a reply delivered to the originator, the situation had almost certainly altered. As Stewart highlighted, ‘control depends on comms...break control and an army will disintegrate’.³⁴⁵ With the issue of problems in communications in the tropics thus identified, tentative solutions began to appear. Eventually organisations such as the Commonwealth Scientific Industrial and Research (CSIR) would devote much time and effort to developing moisture-proof equipment that would come into operation in 1944.³⁴⁶ Committees would be set up to examine waterproofing of all stores, including communications.³⁴⁷ These developments, combined with the introduction of more lightweight and portable US equipment such as ‘walkie-talkies’ would make

³⁴⁴ See DVA, AAWFA, Mason, 2/14th Bn, time. 5.27.00.00: ‘Our first casualty was my platoon sergeant, Jack Mathews. I was up front with Hookie Webb, the platoon runner, and I said to Jack “Go back and tell the troops this and that”. I can’t remember exactly what it was, but Jack never got there. We’ve never even found his body or anything. He never got back to the platoon, which was only about 50 yards behind’; and DVA, AAWFA, Booth, 2/3rd Bn, Archive No. 1420, time. 10.20.00.00: ‘The CO gave him [the runner] a message to take around to another company commander. It couldn’t have been three hundred yards...He disappeared, they never found him for a while. They found him bayoneted to a tree. There was that many bayonet holes in him’.

³⁴⁵ Stewart, *The Argyll & Sutherland Highlanders*, p. 2. For further discussion on this point see chapter 2, p. 17.

³⁴⁶ Barker, *Signals*, p. 170-1.

³⁴⁷ NAA, D5172, Item 107, ‘Preservative treatment of fabrics’. This 1943 report was written by the CSIR for the army. Throughout the second half of 1943 and into 1944, a series of discussions and meetings took place involving all arms and branches of the army, as well as the relevant government departments and the civilian companies who would be required to produce equipment to the new ‘tropic-proof’ standards. See NAA, D5172, item 103A, ‘Tropic Proofing’. This file contains numerous reports and minutes of meetings on tropic proofing weapons and equipment. By late 1943, a sign of how far things had progressed can be seen in the ‘Tropic Proofing Course’ held on 16 and 17 November 1943. By January 1944 Tropic Proofing officers had been appointed to NGF and were preparing reports concerning their field. See the report ‘Tropic Proofing’ 26 Jan 44, by Capt Alexander, Electrical and Mechanical Engineers EME (Tropic Proofing) NGF in the above file.

communication in jungle warfare significantly easier than it had been during the Kokoda, Milne Bay and Beachhead campaigns.³⁴⁸ To an extent the 'introduction of radio communications to company and platoon levels' did 'increase the tempo of operations' in those later campaigns.³⁴⁹ For most units though the most reliable means of communication was still provided by line and cable.³⁵⁰

Before these more widespread and far reaching changes could occur, however, many early signals lessons began to appear that had come directly from the men at the frontline. The aforementioned 'Training notes Nos 1 & 2' were some of the earliest of these. Soon after this, corps and arm specific information was being produced. The monthly *Army Training Memoranda* contained regularly updated sections on various aspects of signals work.³⁵¹ These chapters in the *ATM* were generally extracts from after action reports, and even at times from letters sent home to Australia. The introduction of the *Signal Officer-in-Chief's Training Memoranda* in mid-1942 signalled the first concrete attempt to pass on signals and communications lessons from New Guinea throughout the Australian Army. These three to five-page training memoranda were issued every few weeks over the period August to December 1942. Subsequent issues appeared monthly. They were generally based on information 'obtained from a report by Signal units in New Guinea', and it was ordered that they 'will be studied by all officers'.³⁵² A later issue stated that:

It must be realised that signal communications as applied to operations in Jungle country provide many difficulties which have not been encountered previously and to train personnel for operations under these conditions, certain modifications of standardised training methods must be adopted.³⁵³

Indicative that the army was beginning to realise that to properly prepare troops for jungle warfare they had to train in jungle conditions, there followed the comment that

³⁴⁸ For a discussion on communications and the use of the Wireless Set SCR 536 (Handy Talky) in the Lae and Finschhafen campaigns of late 1943 see AWM54, 589/7/26 Part 3, '9 Aust Div Report on Operations and Capture of Le & Finschhafen', pp.30-31.

³⁴⁹ Sholl, *Points Noted and Lessons Learnt*, pp. 58-9.

³⁵⁰ AWM54, 589/7/26 Part 3, '9 Aust Div Report on Operations', p. 30. Later chapters will examine the efficacy of the walky-talkies.

³⁵¹ See for example, *ATM* (War) (Australia) No. 20, February 1943, pp. 15-16 and *ATM* (War) (Australia) No. 28, 20th December 1943, pp. 29-31. Each month generally contained a section devoted to infantry, artillery, engineer and signals issues, as well as reports from other theatres.

³⁵² NAA, MP 729/6, 50/401/348, '*Signal Officer-in-Chief's Training Memoranda* No. 11, Notes on Signals in Jungle Warfare', 27 November 1942, p. 1.

³⁵³ NAA, MP 729/6, 50/401/361, '*Signal Officer-in-Chief's Training Memorandum* No. 12, Training of Signal Personnel For Jungle Warfare', 17 December 1942, p. 1.

‘technical training should be carried out along lines indicated by these notes and every effort made to introduce realism’.³⁵⁴ The publication of these memoranda also highlighted the growing realisation that in jungle warfare, signals operation and communications would be a more complex and difficult task. It would require a higher degree of preparation and training, a greater ability to improvise and, once available, a higher standard of equipment than had been the case in either the Middle East or early New Guinea campaigns.³⁵⁵ After the Papuan campaign came to an end in late-January 1943, the lessons were assimilated and began to appear in training. In May 1943 an example of this would be a ‘jungle-line construction’ school established by New Guinea Force Headquarters.³⁵⁶

Organisational changes to infantry units, especially with regard to war establishments, do not provide compelling evidence of change brought about by the new terrain and environment. As Sholl has noted, the strength of a battalion signals platoon actually decreased by two men between 1941 and 1943.³⁵⁷ Reports written immediately the campaign ended in January 1943; however, discuss the need for more signals personnel, primarily due to the increased need for line laying between units and subunits.³⁵⁸ With radio communication almost impossible on the Kokoda Track, signalmen at division, brigade and battalion level were greatly overworked attempting to lay telephone cable that should have been a corps responsibility.³⁵⁹ One possible reason why the recommendation of more signal and line-laying personnel was not implemented can be attributed to the argument that frontline units did not need supplementing, rather than NGF needing to deploy its second echelon and corps troops more effectively. This would not, however, have solved the problem during

³⁵⁴ Ibid, p.1. Whether it was possible for all units and training establishments to introduce realism into their training exercises is of course debatable. As with the 2/14th Bn attempting to train for jungle warfare in the countryside southeast of Adelaide [discussed in the previous chapter], most regions of Australia did not replicate New Guinea or Papua.

³⁵⁵ For an example of the types of improvisation see DVA, AAWFA, Roy Dockery, 14th Field Regiment, Archive No. 2023, Transcript, time: 4.22.00.00, ‘We didn’t have a decent insulation tape...so we used to get some of the rubber off the trees...we found that it was pretty handy for insulating our joins’.

³⁵⁶ Various, *Signals: Story of the Australian Corps of Signals*, Canberra, ACT: Australian War Memorial, 1945, p. 126.

³⁵⁷ Sholl, ‘Points Noted and Lessons Learnt’, p. 58. The decrease was from thirty-four to thirty-two.

³⁵⁸ AWM54, 577/7/35, ‘Notes on 7th Division Operations Kokoda to Soputa’ Major Parbury, January 1943, pp.6-7. Several copies of this report, under different headings suggest that it was regarded as valuable. See for example, AWM54, 577/7/29 Part 22, ‘New Guinea Force Reports: Notes on Operations’.

³⁵⁹ Ibid, p. 7.

combat when ‘the only method for a battalion commander to keep proper control was for a line to be laid behind each coy as it advanced’.³⁶⁰ The introduction of ‘walky-talkies’ for the 1943-44 campaigns would go some way to alleviating this problem.

The other major change that occurred was in the method of transporting heavy signals equipment. In theatres that were more amenable to vehicular transport, that was clearly the preferred method. Once the Australian Army began operations in the tropics, this was generally impossible. A report released in late 1942 concluded that ‘in all probability the only means of transporting signal eqpt over the country will be by native carriers’.³⁶¹ From this period onwards vast numbers of native carriers were therefore employed to carry a units’ wireless, batteries, generator and fuel, often preventing them being used for other tasks.³⁶² The lack of carriers therefore affected the speed at which a unit could advance, particularly once the Japanese retreated north towards the northern beaches. These were primarily logistical challenges and changes and did not impact directly upon tactical developments, especially at the unit level. What they did influence, nonetheless, was the speed with which units could move. Jungle warfare thus saw a dichotomous increase in the speed with which combat at the subunit level occurred – with section or platoon contact and ambushes occurring with no warning – combined with a decrease in the speed with which unit level action occurred, as information moved more slowly between sections and platoons, and thence rearwards to their parent bodies of companies and battalions. As with the other combat and combat support arms, signals units and infantry battalion signallers would find operating in the tropics considerably more challenging than in the Middle East.

‘Soldiering in the Tropics’: Australia – United States Learning

With the operations in Papua and New Guinea primarily involving Australian troops, and those in the Solomons almost wholly American, the respective armies were understandably focused upon their own area of responsibility. This, of course, detracted from the creation of a common body of jungle warfare lessons that could

³⁶⁰ Ibid, p. 7.

³⁶¹ AWM54, 937/3/27, ‘Aspects of Jungle Warfare from the point of view of a Company Comd Divisional Signals’, p. 1.

³⁶² AWM54, 581/7/19, ‘Notes on and lessons from recent operations in Gona Sanananda Areas’, Part 5: Supply Problems. This passage discusses the fact that if Brigade HQ were moving location, then their complete allocation of 90 native carriers would be required to move its signals equipment, thereby meaning that all other equipment had to be carried by the unit.

have lead to a coherent and universally applicable doctrine and training system. Nevertheless, at the same time as the 21st Brigade was fighting desperately at Brigade Hill, a handful of training pamphlets and manuals were appearing. They drew upon a wider range of sources than those written immediately following the fall of Malaya and the Philippines, which concentrated solely upon the supposed lessons of those campaigns. The first of these, *Soldiering in the Tropics*, provided the individual soldier with information on the nature and conditions of the jungle.³⁶³ The fact that the term ‘jungle’ was a nebulous one, which varied greatly between the ‘wet’ tropics of the SWPA to the ‘dry’ jungles of East Africa, does not appear to have overly troubled either army.³⁶⁴ As the foreword stated:

This pamphlet has been adapted from the “Jungle Soldier” compiled for USA Troops in the Panama Canal Zone and other publications prepared by AUSTRALIAN Authorities on local conditions in New Guinea and adjacent islands.³⁶⁵

Written between 1935 and 1940 and based upon experience in Venezuela and Panama, this 36-page pocket-sized pamphlet would eventually be issued to all Australian and US servicemen in the South-West Pacific.³⁶⁶ In September 1942 it was planned that the manual would be modified again, to include early lessons of New Guinea operations and brief discussions of Japanese weapons and tactics.³⁶⁷ Nevertheless, the August version was widely distributed to all the combat and combat support arms of the Australian Army.³⁶⁸ What the publication and wide distribution of

³⁶³ LHQ, *Soldiering in the Tropics* (S. W. Pacific Area), North Melbourne: Victorian Railways Printing Works, 1942. This copy of the document was found in an un-numbered box prior to the digitisation of the Centre For Army Lesson’s archival material. It does not include the detailed foreword written by Lt-Gen Northcott (CGS) found in the version at the AWM, discussed in footnote 363 below.

³⁶⁴ As August 1942 was such a critical stage of the Pacific War, both for the Australians at Milne Bay and on the Kokoda Track, and for the US Marines on Guadalcanal, it is understandable that any sources that may have offered assistance in adapting to ‘jungle warfare’ would have been gratefully adopted.

³⁶⁵ AWM54, 937/3/4, ‘Soldiering in the Tropics’, p. 1. This copy of the pamphlet includes a brief cover note listing the changes necessary to make it more appropriate for Australian troops, i.e. substituting ‘mate’ for ‘buddy’.

³⁶⁶ The original US Army document is 20-pages long. The SWPA version includes an extra 10-pages on various native plants and vegetables, as well as a six-page vocabulary of commonly used pidgin words and phrases, supposedly applicable to the whole of the SWPA.

³⁶⁷ AWM54, 805/5/1. This file includes a provisional front cover and contents page for the proposed September 1942 issue. All copies of this pamphlet that the author was able to locate were the August edition. It has since been brought to his attention that a revised edition was printed, although it is not known how widely this was distributed.

³⁶⁸ NAA, MP729/6, 33/401/282, ‘Medical Services In New Guinea’. The second document in this file, entitled ‘Training Instruction’ was issued by HQ Second Australian Army, 27 October 1942, to all medical units. It contains the sentence that ‘the pamphlet “Soldiering in the Tropics” will be taken as a general guide to the standard of fitness to be achieved’, clearly indicating the extent of its distribution. See page 1 for reference.

this pamphlet demonstrates is that the Australian Army had come to the realisation that adaptation to jungle conditions was a prerequisite for defeating the Japanese. In a lecture on 'Jungle Fighting' from early 1943, the CRE of First Australian Army ordered that:

This short pamphlet should be read through and through by all ranks till its lessons are perfectly familiar...The lessons in "Soldiering in the Tropics" will be formed into a series of lectures and given to secs by secs officers.³⁶⁹

In early 1943, Major-General Allen, in a talk to officers in his new command in the Northern Territory would highly recommend they use it.³⁷⁰

The companion training manual *Jungle Fighting Pt II, Tactics of the Squad* does not appear to have been published or issued in as systematic a fashion.³⁷¹ Within months the US Army would request 20,000 copies of *Soldiering in the Tropics* for its Officers Candidate Schools and for 'troops in forward areas'.³⁷² Along with the first tentative training exercises carried out by Lt-Col Wolfenden of the LHQ Training Team in the same month – and attended by US officers – the publication and dissemination of this training manual marked the beginning of Australian-US jungle warfare collaboration and learning.³⁷³

Throughout the latter half of 1942 the exchange of information between the nations continued. In early September a report on Japanese tactics was received from US Intelligence sources and distributed throughout the Australian Army.³⁷⁴ Two months later the US Marine Corps would forward a bulletin on Japanese jungle tactics to LHQ.³⁷⁵ It too would be issued across the entire army. Gradually a detailed collection

³⁶⁹ AWM54, 937/3/20, 'RAE First Aust Army – CRE Lecture No. 21 "Jungle Fighting"', p. 1.

³⁷⁰ 3DRL 4142, 'Notes on a talk to Officers NT Force', [No Date]. On page 2 Allen has written 'Soldiering in the Tropics – Read it – Its good'.

³⁷¹ A full copy of this manual is to be found at the CAL in Box 158. Very few references to it are to be found apart from two pages at the end of AWM54, 937/3/4.

³⁷² AWM54, 805/5/1, 29 December 1942. As the original manual was created and published by the US Army it is difficult to determine exactly why they should need to request from the Australian Army a document they had supplied to Australia in the first place.

³⁷³ Wolfenden's exercises, conducted by 25th Brigade of 7 Division in Southern Queensland were discussed in the previous chapter. Subsequent chapters of this thesis will briefly discuss the training of US personnel at the JWTC – Canungra, and the exchange of information between the two armies.

³⁷⁴ AWM54, 937/2/9, 'Japanese Tactics'.

³⁷⁵ AWM54, 937/3/35, 'Information Bulletin No 123, Subject: Jungle Warfare', 24 November 1942.

of information on Japanese methods and practices was being accumulated.³⁷⁶ These exchanges of information and ‘lessons learnt’ material would continue throughout the remainder of the war.³⁷⁷ In contrast to the reports of February to June 1942 – that drew on the Malayan, Netherlands East Indies and Philippines campaigns – there was now a greater realisation that adjustment and acclimatisation to tropical jungle conditions would also be necessary. Knowing and understanding the new enemy – the Japanese – was important, but of equal, if not greater importance was ‘for tps to experience living in the jungle in the later stages [of training] so that they will become used to it and not be afraid of it’.³⁷⁸ Although lacking empathy and understanding of the difficulties being faced by the soldiers at Milne Bay and on the Kokoda Track, LHQ was coming to the realisation that to properly prepare for future operations, comprehensive jungle warfare training was of seminal importance. To follow these developments we need to turn to the establishment of Canungra – the Australian Training Centre (Jungle Warfare).

Training in tropical and jungle warfare – Canungra

By September 1942, the necessity for systematic training in realistic jungle conditions, and applying appropriate tactics, was clearly recognised. As discussed above, the increasing number of after action reports and training notes based upon the Kokoda and Milne Bay actions further highlighted this. Brigadier Potts’ voluminous report on the 21st Brigade’s Kokoda campaign stated that ‘tps must be trained in similar country and the faster and more individual tactics’.³⁷⁹ On 20 September Lt-Gen Rowell would echo these sentiments in a letter to LHQ:

Training as known in Queensland bears no relation to jungle conditions. The Port Moresby area itself is just as bad a training ground. It is essential that

³⁷⁶ See for example, NAA, MP729/6, item: 50/401/338, ‘Operations Solomon Islands – 7-29 Aug 42 Lessons From Operations – No. 3’. Wing Commander Dale RAAF compiled this 29-page document, after he had conducted a series of interviews with US personnel who had served on Guadalcanal. His report was widely distributed throughout Australia and to other Allied nations. It included lengthy sections on Japanese weapons and tactics. The covering note from the DCGS stated that the document ‘will be used as a basis for training’.

³⁷⁷ It has proven difficult to determine to what extent documents from the US military were utilised by the Australian Army. Although documents received from the US Army and Marine Corps are scattered throughout the AWM collection, they do not appear to have been incorporated to any great extent into Australian training notes or manuals.

³⁷⁸ AWM54, 577/7/29, Pt 22, ‘New Guinea Force Reports – Notes on Operations 7 Aust Division Kokoda – Soputa – 2 November 42 – 3 December 42’, p. 8.

³⁷⁹ AWM52, 8/2/21, Appx J, ‘21 Aust Inf Bde Report on Operations Owen Stanley Range 16 Aug – 20 Sep’, p. 62.

troops get into actual jungle and learn to master its difficulties of tactics, movement and control.³⁸⁰

Less than two weeks later Rowell would expand on this and argue that:

The only way to train for jungle operations is to train in actual jungle...Unless troops live under conditions under which they have to fight, they will be dominated by their environment.³⁸¹

With the move of Advanced LHQ to Brisbane in August 1942, the first steps towards this end were undertaken. The appointment of Brigadier R. Irving – recently returned from the Middle East – as Director of Military Training LHQ, hastened this change.³⁸² Irving's most important task was to oversee the centralisation of the training of Australian Military Forces (AMF) under a single command. As discussed in greater detail in chapter one, training prior to October 1942 was organised entirely on a military region basis.³⁸³ With units being raised, trained and stationed in their home state this was a logical system. For the foreseeable future, however, all troops would serve – and therefore need to be trained – in tropical locales. This was clearly impossible in the majority of the current training areas in Australia.³⁸⁴ As there was no suitable jungle warfare training area, the first step was to determine an appropriate location and develop a training centre.³⁸⁵ In late October the first official notification of the establishment of a jungle training centre appeared.³⁸⁶

As if to confirm that centralisation of training – especially for jungle conditions – was overdue, September saw NSW L of C Area begin the establishment of a jungle warfare training centre. Brigadier Keatinge, Commandant of Training Depots for NSW wrote that he

³⁸⁰ McCarthy, *South-West Pacific Area*, p. 243.

³⁸¹ AWM54, 519/6/60, 'Report on Operations New Guinea Force 11 Aug to 28 Sep 42', November 1942, p. 12.

³⁸² Rod Hamilton, 'A History of Canungra' [Unpublished manuscript], 2002, [Copy forwarded from Australian Army Training Team Association, Queensland Branch] p. 6.

³⁸³ AWM54, 937/1/2, 'Directorate of Military Training. Account of Activities, 1939 to 1946', p. 3.

³⁸⁴ Ibid, p. 4. In November 1943 the Australian Recruit Training Centre would be established in Cowra, NSW. This centralisation of initial training for all arms of the service meant that they could be allocated the appropriate numbers of 'high, middle and low category personnel'. Those for the infantry would then proceed to Canungra for advanced training. Further discussion of this aspect of the Australian Army training system is beyond the parameters of this thesis.

³⁸⁵ Ibid, p. 3.

³⁸⁶ AWM 60, 290A, 'Reinforcement Training Depot – Independent Coys'. The relevant document within this file is 'Establishment of Training Centre Cunungra' 29 October 1942. [Spelling in original.]

Considered it a matter of urgency that a rough camp be established...as all reinforcements for these units [14, 16 and 30 Bde] will require much training in rough jungle warfare...[because if they were to arrive at their units] with no knowledge of the jungle type of country they might completely wreck an operation.³⁸⁷

The fear that some units would be assigned tasks they were not adequately trained to accomplish had been realised during the Kokoda campaign; this recurred during the Beachhead battles. Even the official report admitted that:

In the latter half of 1942 many formations that had had no previous battle experience were being ordered to New Guinea for immediate operations. The results in many cases left much to be desired.³⁸⁸

It was therefore understandable that different formations would attempt to address the issue, especially as they failed to see appropriate action being undertaken by LHQ. A month later a 'Jungle Warfare Tng Depot' was under construction at Lowanna near Coff's Harbour on the NSW Northern coast.³⁸⁹ By mid-November, when Canungra had been inaugurated, Lowanna was ready to receive troops. Although little further information is available, by late-November more than 1,000 troops were training at the camp.³⁹⁰ In an attempt to prevent further instances of decentralisation the CGS, Lt-Gen Sturdee, ordered HQ First Australian Army 'based at Toowoomba [to] conduct a reconnaissance of suitable sites for a jungle warfare centre.'³⁹¹

Although the final decision on its location was still pending, it had been decided that the nucleus of the instructional staff would come from the Guerrilla Warfare School, at Foster, Victoria. This School had been established in February 1941 to train the AIF Independent Companies, which had been modelled on British Commando units.³⁹² Although the rugged terrain of Wilson's Promontory helped create extremely

³⁸⁷ NAA, S459/1, 546/1/8555, 'Establishment For Jungle Warfare Training Depot', 17 September 1942.

³⁸⁸ AWM54, 937/1/2, p. 12.

³⁸⁹ NAA, S459/1, 546/1/8555, 'Jungle Warfare Tng Depot', 16 October 1942.

³⁹⁰ NAA, S459/1, 546/1/8555, 'Establishment For Jungle Warfare Training Depot', 23 November 1942. It appears that the camp was wound down early in 1943 and its recruits sent to Canungra. The only other file on the Lowanna Camp is to be found attached to the rear of file NAA S459/1, 546/1/8498, 'Training Notes – Tropical and Jungle Warfare No. 1'. Dated 18 October 1942 and entitled 'Jungle Warfare Tng Depot' the letter states that 'permission has been granted to establish a Jungle Warfare Tng Depot at Lowanna'. See also, DVA, AAWFA, Ian King, 2/33rd Bn, Transcript, time: 1.30.00.00 – 1.40.00.00. King trained at Lowanna in December, then joined HQ 21 Bde before he was posted to join the 2/33rd Bn.

³⁹¹ Hamilton, 'A History of Canungra', p. 6.

³⁹² McCarthy, *South-West Pacific Area*, p. 85.

fit soldiers, it did not adequately replicate the jungles – or climate – of Papua and New Guinea. Soon the final decision on a location was made. The Guerrilla Warfare School was relocated to Canungra ‘to set up a Reinforcement Training Centre and also move the training of independent rifle company troops to the same area’.³⁹³

On 3 November 1942 the CGS issued instructions formally establishing a jungle warfare training centre.³⁹⁴ This instruction stated that the training centre would consist of the ‘LHQ Tactical School’, the ‘Reinftrg Centre (Jungle Warfare)’ and an ‘Indep Coy Trg Centre’.³⁹⁵ Due to lack of appropriate buildings at Canungra the LHQ Tactical School – for unit (Lieutenant-Colonels) and sub-unit (Majors/Captains) commanders – was moved to Beenleigh.³⁹⁶ Canungra would therefore concentrate upon individual, section and platoon level jungle warfare training. It would train soldiers to a standard that would allow them to join their units in the tropics as ready as possible for combat.³⁹⁷ The extra 28 days training a soldier received at Canungra would mean that he could ‘apply the principles of warfare in jungle fighting’.³⁹⁸

By early December the first draft of personnel arrived for training, direct from Australian Infantry Training Battalions (AITB). The reports written on the first few months’ arrivals were uniformly negative, stating that ‘the vast majority appear unfit for JW, bad feet, poorly trained, little knowledge of weapons [and] unfit’.³⁹⁹ The rapid expansion of the army to cope with the situation in Papua, and the very high casualty rates during campaigns in tropical theatres appeared to have seen inadequate vetting of personnel forwarded on from the AITB. By March 1943 the reports were much more positive.⁴⁰⁰ Originally intended to have a training capacity of 1,000 to

³⁹³ Hamilton, ‘A History of Canungra’, p. 7.

³⁹⁴ NAA, MP742/1, 323/1/135, ‘Instructions for LHQ Training Centre (Jungle Warfare). The relevant file within this larger document is entitled ‘Formation of LHQ Trg Centre (Jungle Warfare), 3 Nov 42.

³⁹⁵ Ibid, p.1. A two, instead of three, page version of this instruction is to be found in AWM52, 35/5/65, HQ Training Centre (Jungle Warfare).

³⁹⁶ Hamilton, ‘A History of Canungra’, p. 7. The interconnected roles of Beenleigh and Canungra will be discussed in greater detail in the next chapter.

³⁹⁷ Soldiers were supposed to arrive at Canungra already categorised as Draft Priority One (DP1), ‘which meant that they were equipped, physically fit and had completed all administration prior to departure for active service’. Hamilton, ‘A History of Canungra’, p. 6.

³⁹⁸ AWM54, 937/1/2, ‘Report on Aust Trg Centre (Jungle Warfare) Canungra’ Annexure C to ‘Directorate of Military Training Account of Activities, 1939 to 1946, p. 2.

³⁹⁹ AWM52, 35/5/65, ‘Brief Report on Drafts Received Canungra Month of December 1942’.

⁴⁰⁰ Ibid, 18 March 1943, ‘Report on Draft Received 15 Mar 43’: ‘The standard of the men was a definite improvement in all respects on drafts received previously and indicates that CO’s of trg units are vetting personnel they send to this centre’.

1,500 soldiers, at its high point in October 1943, more than 6,000 were under training.⁴⁰¹

Beyond the initial problems with the recruit pool, the biggest issues faced by its first Chief Instructor (CI), Lt-Col A. B. 'Bandy' MacDonald, were a lack of jungle warfare experienced instructors, and no applicable training manuals or doctrine around which to construct a training syllabus.⁴⁰² When MacDonald requested 32 more instructors from DMT, he received 16. All were from Citizen Militia Force battalions; none had combat experience, in Papua or elsewhere.⁴⁰³ Over the next few months small numbers of instructors continued to arrive. None could be classified as completely suitable: some were too old, some had been medically downgraded, and others listed as Services No Longer Required (SNLR).⁴⁰⁴ Those few who had experience of the fighting at Kokoda or Milne Bay were often recovering from wounds or recurrent bouts of malaria, or desperately attempting to return to their own units – again not the most suitable instructors.⁴⁰⁵ As with the recruits, it would take until mid-1943 for the pool of instructors to be fully professional and jungle combat experienced.

The paucity of appropriate training manuals was not adequately resolved until the publication of *Military Training Pamphlet (Australia) No 23, Part XX Jungle Warfare* and its supplement, intended for platoon and section leaders in May 1943.⁴⁰⁶ As 'no war diary was maintained in the Directorate of Military Training until May 1943' it has proven impossible to accurately determine which training materials the instructors employed.⁴⁰⁷ With refreshing honesty the DMT *Account of Activities* admitted that:

There was very little as a guide to initiate the syllabus for this type of training except that which is written in FSR Vol II as instructions for close wood fighting.⁴⁰⁸

⁴⁰¹ AWM52, 35/5/65, 'Formation of LHQ Trg Centre (Jungle Warfare), p. 1; see war diary entry for 31 October 1943 for strength of trainee formation.

⁴⁰² Hamilton, 'A History of Canungra', pp. 9-10; Moremon, 'Most Deadly Jungle Fighters?' pp. 70-71.

⁴⁰³ Hamilton, 'A History of Canungra', p. 9.

⁴⁰⁴ Ibid, pp. 9-10.

⁴⁰⁵ Ibid, p. 10.

⁴⁰⁶ *MTP 23* was intended to provide information for unit commanders, while the 45-page supplement 'Notes for Platoon & Section Leaders' was to be used at the sub-unit level. It was intended that a copy be made available to all platoon officers and NCOs. These manuals will be dealt with in greater detail in the following chapter. While they were printed in May, they did not become available to units until July 1943.

⁴⁰⁷ AWM54, 937/1/2, p. 2.

⁴⁰⁸ Ibid, Annexure C, Report on Aust Trg Centre (Jungle Warfare) Canungra, p. 2.

As was discussed in greater detail in chapter one, neither *Field Service Regulations Vol II: Operations*, nor *Infantry Minor Tactics 1941* provide much assistance to those seeking guidance on jungle warfare training or tactics.⁴⁰⁹ Consequently the emphasis until mid-1943 was similar to the training undertaken by 7 Division previously discussed in chapter four – great physical fitness, skill in infantry small arms and discipline – with an newly added focus upon movement and self-reliance in the jungle. In May 1943 General Blamey would note that the

Training, while enthusiastically carried out, shows obviously the lack of that experience...I thought it essential that [a] proportion, at least, of those at the School should be Officers and NCOs who have had actual war experience in New Guinea.⁴¹⁰

Soon after its inauguration the staff at Canungra also realised that the training was ‘satisfactory, but that improvement was necessary in battle conditioning. As a result of this the syllabus was revised so that the training in actual battle conditions could be introduced’.⁴¹¹ With the pace of training resulting in many men failing the course and too few therefore marching out to join their units in combat, a new rule was instituted. Subsequently no one left Canungra until they had completed a course, or were discharged on medical grounds.⁴¹² The pass rate rapidly increased. While the jungle training centre was being established, another attempt to obtain lessons from jungle warfare operations, and thereby better prepare units who were about to deploy to Papua, was underway.

As the training situation prior to the entry of the Japanese into the war has been discussed in chapter one, this will not be recounted in detail. Suffice it to say that upon arrival in the Middle East it was adjudged that the majority of units were under-prepared. To overcome this ‘an AIF Reinforcement Depot’ was established.⁴¹³ Reinforcements were trained by their parent training unit before being allotted to their unit. Canungra provided a similar role in training individual soldiers and sub-units before they were posted to their unit. For complete units and formations that were

⁴⁰⁹ The entries on ‘forest’ and ‘mountain’ warfare are generalist in the extreme and would have provided little direction to officers wishing to create suitable training programs or syllabi.

⁴¹⁰ 3DRL/6643, 2/65, Blamey to Lt-Gen Morshead, 23 May 1943.

⁴¹¹ AWM54, 937/1/2, Annexure C, p. 2.

⁴¹² Hamilton, ‘A History of Canungra’, p. 11.

⁴¹³ AWM54, 937/1/2, p. 6. See also chapter one for greater detail on training prior to 7 December 1941.

‘listed for movement to New Guinea’, but had received no jungle warfare training, another solution was necessary.⁴¹⁴ Major-General Berryman informed Blamey that:

It is felt that immediate action is necessary to ensure that lessons learned from operations in New Guinea should be made available to formations in Australia, in a manner in which it can be most readily absorbed by them and introduced into their training.⁴¹⁵

Several weeks later the commander of First Australian Army, Lt-Gen Boase similarly identified the problem:

With large numbers of tps continually leaving this comd for service in the NG theatre, the necessity for the est of a system to instruct formations in methods of jungle warfare and the latest lessons learnt has become apparent.⁴¹⁶

He then continued by proposing ‘to form a First Aust Army trg team’ which would be attached to ‘each formation of First Aust Army in turn, with the object of carrying out bn gp exercises in the nearest jungle country’.⁴¹⁷ Obviously agreeing with Boase, within days LHQ announced that ‘approval has been given for the raising of two LHQ Trg Teams’.⁴¹⁸ Their role would be to ‘formulate and expound the tactical doctrine for jungle and mountain fighting’.⁴¹⁹ At the time this training instruction was being circulated, the men who would command these teams had already been despatched to New Guinea:

For the purpose of collecting the necessary local knowledge of conditions and tactics, and preparing in conjunction with NG Force and LHQ, the necessary data on which their instruction will be based.⁴²⁰

While not actually going into action, the training teams visited units recently withdrawn from combat and interviewed battalion and company commanders on their experiences. It was hoped to gain information on solutions to problems posed by operating in the tropics, as well as countermeasures to Japanese tactics. Upon their return to Australia, the training teams would visit all units earmarked for service in New Guinea, conduct seminars and briefings for all unit officers, ‘assist commanders

⁴¹⁴ Ibid, p. 12.

⁴¹⁵ 3DRL/6643, 2/65, Berryman to Blamey, 26 September 1942.

⁴¹⁶ NAA, MP508/1, 323/701/862, ‘Training in Jungle Warfare: First Australian Army’, 16 October 1942.

⁴¹⁷ Ibid, pp. 1-2.

⁴¹⁸ AWM52, 1/2/1, ‘Adv LHQ GS Instn No 17’ 21 October 1942.

⁴¹⁹ Ibid.

⁴²⁰ Ibid. Lt-Col Wolfenden, who had conducted the 25th Brigade jungle exercises in August 1942, discussed in the previous chapter, was to command one of these teams. The other was commanded by Col P. M. Thomas US Army.

in the preparation of exercises...and assist commanders in the capacity of directors during tactical exercises'.⁴²¹ In order to disseminate more widely the information that the training teams had learnt in Papua and New Guinea, training notes were distributed throughout the army. The first of these began to appear in November, and by December they contained relatively detailed information with traces and diagrams of contact and battle drills that all units were ordered to practice.⁴²² Units then conducted training exercises based upon the information imparted and produced their own notes. Suggestions found in both the 21st and 18th Brigades report on operations appear to have been extrapolated and included in these reports. By early 1943, lessons from the training exercises conducted by the LHQ Training Teams were appearing in a more formalised context, namely the widely distributed *Army Training Memorandum*.⁴²³

At the same time as this was happening, officers who had recent combat experience in Papua were seconded to LHQ to provide up-to-date assistance to the training teams.⁴²⁴ While the emphasis was clearly upon infantry units and their training, eventually the training teams, and Canungra itself, would broaden their training to encompass 'other arms and services'.⁴²⁵ At this time it was perfectly understandable that the focus should be on the infantry as many reports agreed with the Milne Bay one which stated that, 'jungle fighting is performed largely by infantry'.⁴²⁶ It would take longer for LHQ to come to the understanding that artillery, engineers, signals and even medical units would need to prepare and train differently in order to effectively operate in the jungles of the South West Pacific. However, as 1942 drew to a close, several measures had been undertaken that would in future see all units sent to the tropics far better equipped to meet and overcome the challenges that the environment,

⁴²¹ AWM54, 937/1/2, p. 12.

⁴²² See AWM54, 937/3/9, 'Experiments in Jungle Warfare'. The majority of the documents in this file relate to training carried out from June to August 1942, but the final document is entitled 'Precis on Jungle Fighting Part I', 14 Dec 42. The opening sentence stated that 'The following is a précis of some of the more important pts brought out recently by the LHQ No. 2 Trg Team' and had been collated by the 4th Inf Bde, a militia unit who had received a training visit from a LHQ Training Team. The same précis can also be found at AWM54, 937/3/23, 'Precis on Jungle Fighting: Bought out by the LHQ No. 2 Tng Team'.

⁴²³ See, for example, *ATM* No. 21, March 1943, p. 16, section 10: Conduct of Training Exercises in Jungle Warfare. 'The contents of this article are based on the experience of LHQ Training Teams.'

⁴²⁴ See for example, AWM52, 8/3/14, 19 October 1942, 'Capt E. H. Dickenson visited the unit...and informed us that he would be going to Australia for three months, seconded to LHQ to lecture on Jungle Warfare'.

⁴²⁵ AWM54, 937/1/2, Annexure C, Report on Aust Trg Centre (Jungle Warfare) Canungra, p. 6.

⁴²⁶ AWM54, 579/6/5, Operation Milne Bay 24/8/42 to 8/9/42. Lessons from operations No. 2, p. 15.

and the Japanese posed. Before that could happen the final battles of the Papuan campaign would come to their bloody conclusion.

‘Up to my chest in water’: The Beachheads

As costly as the Kokoda and Milne Bay campaigns had been, the drawn out battles of attrition that occurred at Gona, Buna and Sanananda would see a greater loss of life. The steps that were being put in place – foremost among them the establishment of Canungra, combined with the LHQ training teams and more appropriate training manuals – had not yet come to fruition. The majority of the men who would eventually capture the three strongly held positions were either training and recuperating at Port Moresby and Milne Bay – the 21st and 18th Brigades – or still in action on the Kokoda Track – in the case of the 16th and 25th Brigades.⁴²⁷ The expansion of jungle warfare knowledge beyond these brigades continued with the arrival of the 17th Brigade at Milne Bay in October.⁴²⁸

After their enforced garrison duties on Ceylon and short training period in Australia, the 17th Brigade, like the other AIF units before them, were looking forward to meeting the Japanese in combat. Whilst encamped at Greta, NSW, the brigade had conducted exercises in ‘aggressively countering Japanese enveloping movements’, with Lt-Col Wolfenden acting as an expert jungle warfare advisor.⁴²⁹ A report written three months later by the 17th Brigade commander would state that ‘I expressed complete disagreement with the lessons being taught’ during these exercises.⁴³⁰ As the lessons that Wolfenden was imparting were, to a large extent, based upon reports from Malaya, it is not surprising that the units who participated in them – the 17th and earlier, the 25th Brigades – would later question their value.⁴³¹ Preparations continued, and days before they sailed for Papua, ‘all khaki summer dress was tied in rough

⁴²⁷ The 30th Brigade, a militia formation, also played an important role in these battles. As this thesis seeks to examine the transition that AIF units underwent in adapting to jungle warfare, militia experiences are necessarily peripheral to this.

⁴²⁸ AWM52, 8/3/5, 17 October 1942.

⁴²⁹ AWM52, 8/2/17, ‘17 Aust Inf Bde Gp Demonstration - 28 Sep 42 Mobile Defence’. At this stage Wolfenden had still not been to Papua to see for himself the terrain that his exercises were attempting to prepare units’ to operate in.

⁴³⁰ AWM52, 8/2/17, 10 December. This quote appeared in an address that Brigadier Moten gave to his senior officers after a Brigade TEWT that was criticised by the GOC. Moten argued that training, such as that provided by Wolfenden, had contributed to the below standard performances by his officers.

⁴³¹ For criticism by 2/33rd Bn, one of the 25th Bde bns, see p 215 of this chapter. Further detail of the training that Wolfenden conducted can be found in ch. 4., pp. 149-50.

bundles and dyed green. The result wasn't a bad camouflage effect'.⁴³² The necessity for appropriately camouflaged clothing had obviously reached Australia, but the ability to supply the correct issue uniforms had not.

As the 2/6th Battalion discovered, prior to departure anti-malarial measures were also given greater priority than had been the case for the 18th Brigade or the militia units who preceded them to Milne Bay.⁴³³ Information exchange was also occurring as a copy of the 7th and 18th Brigades reports on their battles at Milne Bay was utilised while the 17th was still in camp at Greta.⁴³⁴ On the voyage from Brisbane to Milne Bay they were given a series of lectures by their Intelligence Officers, providing information about the region, and the Japanese Army.⁴³⁵ Soon after their arrival they commenced jungle training, beginning with a lecture by the CO of the 2/9th Battalion 'on tactics used by the Japanese at Milne Bay'.⁴³⁶ On the same day the battalions of the 17th began patrolling to gain experience in jungle conditions, and to kill or capture the occasional Japanese stragglers left behind after their invasion force was defeated in September.⁴³⁷

Also on 22 October, the 17th's Brigade Commander, Brigadier Moten, ordered a jungle training school, similar to that which the brigade had established on Ceylon, to be created.⁴³⁸ The training syllabus would be focused upon movement and survival in the jungle, rather than teaching actual jungle warfare tactics. As the 17th Bde war diary stated, 'the students [will] learn all about bush plants, native foods, the skinning of bush pigs and other useful accomplishments'.⁴³⁹ While this particular school would only run for five weeks, other schools – for weapons training, infantry section leading and guerrilla warfare – would continue throughout the deployment.⁴⁴⁰ The Pack Transport training course would also prove valuable once the brigade arrived at Wau.⁴⁴¹ Before engineers arrived to improve the tracks around Wau, horse and mule

⁴³² Tregellis-Smith, *All the King's Enemies*, p. 188.

⁴³³ Hay, *Nothing Over Us*, pp. 246-7.

⁴³⁴ AWM52, 8/2/17, 2 September. On this day in the war diary there appears a copy of an 18th Brigade intelligence report on Japanese tactics. Copies of reports from the 21st Brigade's Kokoda Track operations also appear, further highlighting the extent of information exchange.

⁴³⁵ AWM52, 8/3/5, 9 October 1942.

⁴³⁶ Bolger & Littlewood, *The Fiery Phoenix*, p. 198.

⁴³⁷ AWM52, 8/2/17, 22 October 1942.

⁴³⁸ Ibid.

⁴³⁹ Ibid.

⁴⁴⁰ AWM52, 8/2/17, 28 November.

⁴⁴¹ Ibid, 10 November.

teams would carry forward supplies in the Crystal Creek and Black Cat areas.⁴⁴² The terrain and conditions of Papua, New Guinea and the islands of the South West Pacific would continue to see the need for improvisation and non-traditional solutions. For approximately three months the 17th Brigade would be based at Milne Bay, providing a sizeable increase to the infantry component of the defence force and becoming more experienced in jungle movement and manoeuvre. That is, when they were not required on road building, which continued to be the bane of many a commander.⁴⁴³ During their deployment the brigade was able to send a proportion of their officers to the 'NG Force trg centre [to attend the] jungle fighting course' thus increasing the brigade's overall level of jungle warfare knowledge.⁴⁴⁴ Their time at Milne Bay, as Palmer stated, allowed them 'to acclimatise to jungle' conditions.⁴⁴⁵ One unit historian would later state that an 'invaluable three months preparation in Milne Bay' occurred as 'the jungle was there, the climate was authentic and the meaning of malaria precautions was hammered home'.⁴⁴⁶ Much jungle could be found in the mountains inland from Milne Bay, but for the most part the area consisted of coconut plantations, creeks and abundant secondary regrowth. The area to which they would eventually be deployed, in the highlands of the Wau-Salamaua area, more accurately equated to the conditions on the Kokoda Track.⁴⁴⁷ In late January 1943 the 17th Brigade would arrive by plane at Wau aerodrome, some of its troops rushing straight into battle before the aircraft that had delivered them had taken off again.⁴⁴⁸

Before this would occur, the bloody and painfully slow battles to destroy the Japanese defences at the beachheads would come to their violent conclusion. As mentioned earlier, few of the new jungle warfare training ideas and manuals being introduced at

⁴⁴² Bolger & Littlewood, *The Fiery Phoenix*, pp. 231-2.

⁴⁴³ Ibid, p. 198.

⁴⁴⁴ AWM52, 8/2/17, 4 November 1942, Operations Diary. Each of the three battalions sent two personnel, a captain or lieutenant and an NCO.

⁴⁴⁵ DVA, AAWFA, Graham Palmer, 2/6th Battalion, Archive No.2111, time: 6.24.00.00.

⁴⁴⁶ Tregellis-Smith, *All The King's Enemies*, pp. 191-3, is correct in that the chance to integrate new soldiers into the unit in jungle conditions, and train for three months was extremely valuable to the 17th Brigade. If the other 6th and 7th Division Brigades had been able to avail themselves of a similar training period, then a sizeable proportion of the casualties they suffered could have been avoided.

⁴⁴⁷ Similar to the Kokoda Track, the operations in the Wau-Salamaua campaign were, for the most part, conducted at an altitude above which the anopheles mosquito could not survive. The problems with malaria occurred due to the many hundreds of soldiers who were infected during the three months at Milne Bay.

⁴⁴⁸ The 17 Bde experiences in the Wau-Salamaua Campaign will be examined in chapter six.

this time in Australia would play any significant part in defeating the Japanese at Gona, Buna and Sanananda. As it was, those AIF units who would be involved in those battles for the most part had previous jungle warfare experience, either on the Kokoda Track or at Milne Bay. This would be of little avail as Lt-Col Cooper argued:

Gona was a bloody massacre, unnecessarily brought about by fighting soldiers not being allowed to practise their art; being pushed into action with bad support and insufficient time to conduct their operations – a panicky rush.⁴⁴⁹

Even if they had been allowed more time, the nature of the terrain and the Japanese defences ensured that these battles were more akin to the First World War, albeit without the days of artillery fire intended to destroy the enemy's bunkers and kill their defenders.⁴⁵⁰ Preparations for the attacks on the beachheads resemble the inadequate planning for the Kokoda and Milne Bay actions:

We had no maps at all, no reliable maps...aerial photographs were very inaccurate...There was no knowledge of the nature of these defences, except that they were in around the Gona village and we had no opportunity to do proper reconnaissance to find out where these defences were.⁴⁵¹

Poor intelligence on the numbers of Japanese defenders, insufficient time for careful reconnaissance, a debilitated attacking force, appalling terrain and weather conditions and a lack of support weapons saw the battles descend into costly massacres. As individual groups of men with small arms struggled through swamps and mud towards largely unseen Japanese defences, expertly sited and camouflaged, to be met by 'a wave of small arms fire' the impression that the Western Front was being revisited grew.⁴⁵²

The problems of transport and logistics meant that the attacking forces had entirely too little in the way of support, both air and ground. Tactical air support in jungle

⁴⁴⁹ Brune, *Those Ragged Bloody Heroes*, p. 264. Lt-Col Cooper was the CO of the 2/27th Battalion.

⁴⁵⁰ Captain Robertson, the 2/31st Bn Intelligence Officer, discussed the impossibility of his battalion capturing Buna without adequate artillery support and with too few men to consolidate ground taken. Eather, *Desert Sands, Jungle Lands*, pp. 112-3.

⁴⁵¹ AWM, KMSA, Archive S903, Harry Katekar, 2/27th Bn, tape 2, side A, 20-30 minutes.

⁴⁵² AWM, KMSA, Archive S779, Robert Johns, 2/27th Bn, tape 2, side A, 10-15 minutes. See also, AWM, KMSA, Archive S789, Charles Sims, 2/27th Bn, tape 2, side A, 15-20 minutes. As Sims would argue 'It was a waste of human life. They threw in lives whereas afterwards...they'd throw in weaponry, ammunition, bombs, anything else rather than human lives'.

conditions was in its infancy, which, on occasion, led to Allied aircraft strafing and bombing their own troops.⁴⁵³ A report written after the campaign stated that:

Direct air support in the recent operations in New Guinea has varied considerably from that laid down in Manual of Direct Air Support, June 1942.⁴⁵⁴

Being based upon existing air support doctrine, with the addition of new information from Desert Air Force operations conducted over the previous year, it is unsurprising that major modification was needed before air support could become effective in the tropics.

As discussed at the start of this chapter, artillery units were also struggling to come to terms with the new operational environment. Far too few artillery pieces and rounds were available to support attacks on the Japanese positions. In one attack on Gona by the 2/14th Battalion, 'only forty rounds could be spared'.⁴⁵⁵ Suffice it to say that the Australians and Americans were forced to fight on terms and in conditions that greatly aided the tenacious Japanese defenders, who had nowhere to escape to, and were therefore forced to fight to the death – something they had proven in earlier battles they were perfectly willing to do.⁴⁵⁶ In terrain similar to Milne Bay, but if anything more waterlogged, the Japanese had prepared their defences on the only elevated – and therefore relatively dry ground – in the area, around which the tropical vegetation had rapidly regrown hiding them from ground and aerial observation.

Numerous costly assaults upon the defences at Gona would eventually culminate in its capture. This would only occur after commanders at the front were allowed to adequately reconnoitre before they attacked and with the supply of delayed action shells to destroy bunkers, as discussed earlier in this chapter.⁴⁵⁷ Even then the 39th Battalion found that their own support weapons, 3-inch mortars, sank in the mud

⁴⁵³ AWM52, 1/5/14, 3 December 1942. The entry for this day stated that '21 Aust Bde reported that our A/C strafed own troops thrice during day'. A combination of inexperience and inadequate maps was generally to blame. Even more common was for the air attacks to provide no assistance as their ordnance dropped harmlessly in unoccupied jungle.

⁴⁵⁴ AWM54, 85/3/8, 'Air Support during recent operations in New Guinea – Papers on Close Air Support Doctrine – September 1942 – January 1943', p. 1.

⁴⁵⁵ Russell, *The Second Fourteenth Battalion*, p.192.

⁴⁵⁶ Lex McAulay, *To the Bitter End: The Japanese Defeat at Buna and Gona, 1942-43*, Milson's Point, NSW: Arrow Books, 1993, pp. 31-2.

⁴⁵⁷ See pp. 189-90.

whilst firing on Gona.⁴⁵⁸ The debates over the tactical and operational decisions, the higher-level discussions between Blamey, Herring and their frontline commanders, as well as MacArthur, Eichelberger and their unit commanders, and the impact these had upon the fighting are beyond the scope of this thesis.⁴⁵⁹ Brune was correct in arguing that ‘the nature of the terrain intrinsically governed the events at Gona, Sanananda and Buna’ despite command problems exacerbating the situation on the ground.⁴⁶⁰ Commanders at all levels discovered that the difficulty of movement and lack of visibility once off the few tracks severely constrained their manoeuvre options.⁴⁶¹ In country that caused men to take an hour to move a few hundred yards, one of the advantages of modern warfare, speed, as experienced by both the 6th and 7th Division in their North African and Middle East campaigns disappeared into the glutinous knee-deep mud, swamps and tangled wait-a-while bushes.

In short, the inadequate and incorrect intelligence combined with a lack of patience forced those on the ground to commit men to battle without proper preparation. As in any battle fought under those conditions, lives were lost unnecessarily. The majority of the Australians did not go into battle as novices however. As the 2/12th historian stated, ‘the Battalion had learnt a hard lesson at Milne Bay’ and they would attempt to apply the knowledge gained there to the fighting at Buna and Sanananda.⁴⁶² One change that the 18th Brigade had managed to make to better prepare themselves for their next experience of jungle warfare was to dye many of their uniforms and all of their webbing equipment jungle green prior to departure for Buna from Milne Bay.⁴⁶³ In the coconut plantations of Buna with their sparse jungle, this adaptation may not have afforded much camouflage benefit. Other tactical changes would prove of greater use.

Before the 18th Brigade assaults through Duropa Plantation and across the Old Strip, Vickers MMGs would rake the tops of the coconut palms searching out the snipers.

⁴⁵⁸ McAulay, *To the Bitter End*, p. 115.

⁴⁵⁹ For information on these issues see works such as Peter Brune, *Gona's Gone! The Battle of the Beachhead, 1942*, St Leonards, NSW: Allen & Unwin, 1994; Brune, *A Bastard of a Place*; Eather, *Desert Sands, Jungle Lands*; Horner, *Crisis of Command* and McAulay, *To the Bitter End*.

⁴⁶⁰ Brune, *Those Ragged Bloody Heroes*, p. 243.

⁴⁶¹ Sholl, ‘Most Deadly Jungle Fighters?’, p. 72.

⁴⁶² Graeme-Evans, *Of Storms and Rainbows*, p. 260.

⁴⁶³ AWM52, 8/2/18, 16 Apr 43, ‘Dying of Web Equipment’. This was one of a series of reports written in March and April 1943 discussing the benefits and drawbacks of dyeing uniforms.

For the 2/9th ‘the lessons of Milne Bay had taught that no enemy could be left alive behind the line of advance’.⁴⁶⁴ Every Japanese soldier in every bunker and slit trench would have to be killed before the assault moved forward. For most of the militia units, however, the Beachhead battles were a harsh initiation. Few of them had been adequately prepared for the challenges ahead. As Isaachsen suggested ‘the whole trouble with the militia units was they’d had no proper training’ for any sort of combat, whether in jungle conditions or not.⁴⁶⁵ Unsurprisingly reports written by their commanders after the battle stated that ‘results can NOT be achieved and greater casualties must result if untrained troops are sent into battle’.⁴⁶⁶

With stalemate around the Huggins Road Block position south of Sanananda, and US forces making little headway in their attacks on the Japanese defences around Buna, it was decided to employ the 18th Brigade to break the deadlock. Two weeks earlier a foredoomed attack by five Bren gun carriers had resulted in their destruction and the deaths of most of their crews in under an hour. As discussed in chapters three and four, this outcome had been predicted by all those who had used them in jungle training, both on Ceylon and in Southern Queensland. Designed as light, fast reconnaissance vehicles in open terrain they were forced to operate with visibility negligible due to the tall kunai grass, and had bellied on stumps and were then quickly shot to pieces in the coconut plantations.⁴⁶⁷ A 17th Bde report written after the action made it scathingly clear that ‘once again it was proved that Bren carriers are not tanks’.⁴⁶⁸

⁴⁶⁴ Dickens, *Never Late*, p. 198.

⁴⁶⁵ DVA, AAWFA, Oscar Isaachsen, 36th Bn (AMF), Archive No. 1687, time: 7.05.30.00. Isaachsen had recently been promoted to command the 36th Bn, having originally seen action with the 2/27th Bn in Syria and on the Kokoda Track.

⁴⁶⁶ AWM54, 581/7/13, ‘Report on Operations in Sanananda Area’ by Lt-Col Kessels, 30th Australian Infantry Brigade, Dec 1942 to Jan 1943, p. 1. [Emphasis in original.] After the poor performance of some inadequately trained Australian troops prior to the fall of Singapore it is hard to comprehend that the same would occur nearly a year later.

⁴⁶⁷ For descriptions of the attack see McCarthy, *South-West Pacific Area*, pp. 376-378 and R. N. L. Hopkins, *Australian Armour: A History of the Royal Australian Armoured Corps 1927-1972*, Canberra: AWM, 1978, p. 111-112.

⁴⁶⁸ AWM52, 8/2/17, Friday 18 December 1942. Four of the carriers and crews were from the 2/7th Battalion, with one from the 2/5th. Thus a report regarding their fate is found in their parent unit’s war diary. They were the only 17 Bde troops to see action at Buna. The rest of the brigade was still training at Milne Bay. A detailed three-page report by one of the surviving crewmembers is included as Appx No 1, 19 Dec 42, in the 17th Bde WD.

As was the case with the units who had eventually captured Gona, ‘almost nothing was known about the enemy defences’ in the Duropa Plantation, through which the 2/9th Battalion would advance on 18 December.⁴⁶⁹ Having arrived in the battle area the day before, the battalion had inadequate time for reconnaissance and planning. The subsequent slaughter of large numbers of the attacking force would once again highlight the consequences of not allowing proper time for planning, as well as very poor intelligence, especially with regard to the numbers of Japanese defenders.⁴⁷⁰ It would also highlight the ‘failure of the higher commanders to appreciate the conditions in the forward areas’.⁴⁷¹ The relatively short distances on a map did not accurately reflect the reality, and difficulty, in moving across such appalling terrain. For this new attack it was decided to use tanks to support the infantry assault. As with much of the Kokoda, Milne Bay and Beachhead campaigns, preparations were inadequate. The decision to use tanks, although correct, was ill thought out. It resulted in rushed preparation, was undertaken with unsuitable equipment, and involved units that had no previous training or experience of infantry-tank operations.

The original, and more suitable choice of tanks for the attack, made in September 1942, had been the General Grants of 2/5th Australian Armoured Regiment. However, these M3 Medium Tanks weighed 28 tonnes, and there were no vessels that could transport and offload such heavy tanks in Papua.⁴⁷² The choice therefore was made to despatch the 2/6th Regiment with their 13 tonne Stuart M3 Light Tanks.⁴⁷³ Although these could be transported they were not appropriate for the task they would be ordered to perform. As Wilson stated,

In 1942 we received some Stuart light tanks and trained with them at Singleton and Narrabri in open country with the emphasis on training for the Middle East and defence of Australia. There was no training with infantry...These tanks were designed for fast running in open country, mainly for reconnaissance.⁴⁷⁴

⁴⁶⁹ Johnston, *The Silent 7th*, p. 141.

⁴⁷⁰ As indicated earlier, the higher level discussions between Blamey, MacArthur, Eichelberger, Vasey, Wooten etc, which lead to the hastily prepared attacks, are beyond the scope of this thesis. See Brune, *The Spell Broken*, pp. 151-54 for various intelligence figures.

⁴⁷¹ Keogh, *South West Pacific 1941-45*, p. 279.

⁴⁷² Paul Handel, *Dust, Sand and Jungle: A History of Australian Armour During Training and Operations 1927-1948*, Hopkins Barracks, Puckapunyal, Vic: RAAC Memorial and Army Tank Museum, 2003, p. 69.

⁴⁷³ Hopkins, *Australian Armour*, p. 104.

⁴⁷⁴ Brune, *The Spell Broken*, p. 160. Trooper John Wilson was a member of the 2/6th Regt.

With their engines designed for long distance cruising, being forced to slow to walking pace meant that overheating became an issue.⁴⁷⁵ Similarly, their wireless communications system, designed for open warfare, did not function properly in the jungle.⁴⁷⁶ After the Beachhead battles had come to a successful conclusion, the 2/6th Armd Regt wrote a report reiterating these points. It determined that

The country is definitely unsuitable for Light M3 Tanks. The strength of these tanks lies in speed and manoeuvrability, both factors which have been denied them in this area. Furthermore, visibility...is almost nil. This is most marked in jungle and tall kunai country.⁴⁷⁷

Despite these drawbacks the tank crews and the infantrymen attempted to make the most of a poor situation. As Barnet recalled:

Lieutenant MacIntosh, who was the platoon commander...he and I crawled forward on the evening of the 17th in the dark. We found that in front there were some heavily armed Japanese pillboxes. We veered off to the right and crawled and found no Japanese.⁴⁷⁸

On the following morning, therefore, Barnet's tank was able to outflank and then enfilade the Japanese bunkers, killing many of their occupants with few casualties to the infantry. Further inland, amongst the coconut palms and the kunai, which hid the bunkers, they were not as fortunate. Spencer recalled the early stages of the attack 'as the tanks moved forward into a barbarous inferno ahead of the walking-paced infantry [who walked into] a wall of small arms lead'.⁴⁷⁹ Having had very little time the day before to discuss tactics for communication, lessons were learnt in the heat of battle. Wells provided a graphic description of the tactics employed:

So for directions we had to fire very light pistols at the target we wanted them to direct their fire on or you had to go up behind the Tank and bash on the hull with your rifle butt until somebody stuck his head out and then you'd tell him what you wanted to do.⁴⁸⁰

In this manner the Japanese bunkers were painstakingly cleared, even as the 2/9th was slowly depleted the further forward it went. As with the earlier battles, the first tank-infantry engagement in jungle conditions taught many lessons. Similar to those

⁴⁷⁵ AWM54, 581/7/31, Part 2 of 2, 'Report on Operations, 18th Infantry Brigade' Giropa Point and Sanananda Area 14 Dec 42 – 22 Jan 43, Appx A 'Notes on Tank and Inf Cooperation', p. 1. See also, Handel, *Dust, Sand and Jungle*, p. 70.

⁴⁷⁶ AWM54, 577/7/29, Part 1, 'Report on Operations in New Guinea, Owen Stanleys – Buna Area: Operations using M3 Light Tanks in New Guinea', p. 13. See also, Brune, *The Spell Broken*, p. 162.

⁴⁷⁷ AWM54, 577/7/29 Part 1, p. 4.

⁴⁷⁸ Brune, *The Spell Broken*, p. 169.

⁴⁷⁹ Spencer, *In the Footsteps of Ghosts*, p. 126.

⁴⁸⁰ DVA, AAWFA, Bryan Wells, 2/9th Bn, Archive No. 0696, Transcript, time: 1.35.00.00.

battles, however, the lessons came at the cost of an excessive number of soldiers' lives. This was directly attributed to the 'shortness of the time available for training tank crews and infantry together'.⁴⁸¹ Inadequate intelligence on enemy dispositions and defences must also bear some of the responsibility.

Before the next major attack, this time by the 2/10th Battalion on 24 December, HQ Buna Force distributed intelligence acquired over the preceding days. Amongst this information were diagrams of various bunkers – similar to those the 2/9th had overcome during their advance on Cape Endaiadere.⁴⁸² Notwithstanding this assistance, the 2/10th Battalion attack was a disaster, with their tank support being destroyed by Japanese anti-aircraft guns – used in the anti-tank role – as they crossed Buna Old Strip. The virtually unsupported infantrymen were then cut to pieces as they advanced over open ground.⁴⁸³ Days later another attack by the 2/10th failed when the 'tanks arrived late and then one mistook for Japanese a depleted platoon' attacking and forcing them to retreat having gained their objective.⁴⁸⁴ Lack of time for reconnaissance and inadequate infantry-tank training were again responsible.

On New Year's Day, the climatic assault by the 2/12th Battalion would see the lessons learnt at such cost by their sister battalions over the previous two weeks put into effect. Reports written after the campaign by personnel of the 2/6th Armd Regt list many suggestions for future operations. Foremost among these were a need for better information exchange and closer liaison between the infantry and armoured units.⁴⁸⁵ Some of these changes were implemented for the 2/12th Battalion's attack. A better-coordinated and larger amount of air, artillery, mortar and MMG support also contributed greatly to the success of the attack.⁴⁸⁶ The recent invention of a 'blast bomb', an M36 hand grenade attached to a five-pound charge of ammonal also played a crucial part.⁴⁸⁷ Holmes would later recall that as the assault moved forwards:

⁴⁸¹ AWM54, 577/7/29 Part 1, p. 5.

⁴⁸² AWM52, 8/2/18, 'Constructional Details of Enemy Emplacements', 21 December 1942.

⁴⁸³ Allchin, *Purple and Blue*, pp. 286-292.

⁴⁸⁴ Johnston, *The Silent 7th*, p. 150.

⁴⁸⁵ AWM54, 577/7/29, Part 1, pp. 6-7.

⁴⁸⁶ Graeme-Evans, *Of Storms and Rainbows*, pp. 256-7.

⁴⁸⁷ AWM54, 581/7/31, Appx E to Report on Operations 18 Aust Inf Bde Gp, 'Japanese Strong Points – Expedients in Assisting Attack', 4 Jan 43. Lt-Col Irwin, the CRE of 6 Division, wrote this report. On 29 December, at the request of Brigadier Wootten he had experimented with various explosives to

The boys in the tank opened a little door in the side, and beckoned me over, and he said 'I'll hand these out to you...He said 'We'll cover you, you run up and drop the bombs down them.' I dropped [them] down the vents. It was a hand grenade with a tin of ammonal tied to it.⁴⁸⁸

The subsequent massive explosion destroyed the bunker and killed all of its occupants. Dozens of these would be employed to blast the Japanese out of their defences.⁴⁸⁹ Hung on the rear of the tanks were also bandoliers of ammunition, so that the infantry could simply reach up and resupply without the need to return to their forming up positions. Within days the Japanese resistance in the Buna area had been broken. The grim slogging match in the Killerton Track-Sanananda area would, however, continue for nearly a month longer.

Conditions there were, if anything, worse than at Gona or Buna. Whilst moving through the jungle towards the Huggins Road Block Hartley stated that:

The swamp now, in places, was up to my arm pits...At every bend there would meet the eye green and rotting corpses. The stench was sickening.⁴⁹⁰

Poorly trained militia units, and debilitated AIF battalions would eventually overcome the last vestiges of the Japanese defences in the Beachhead area. In terrain that denied the use of vehicles anywhere other than the handful of tracks, the infantry, supported when they could be, by artillery and air support, gradually eradicated the remaining Japanese positions. Those Australians who survived would recall that Sanananda:

Was a ghastly nightmare, horrific conditions, with torrential rains, slimy swamps, stumbling through shell holes filled with water, the constant stench of decaying bodies, one could almost taste death in our drinking water... I remember this as the worst experience of the war, and feel sure that many other survivors feel the same.⁴⁹¹

destroy Japanese bunkers. This was the weapon he had devised. In the days prior to the attack on New Year's Day hundreds of them were produced, proving invaluable in overcoming Japanese resistance.

⁴⁸⁸ AWM, KMSA, Geoffrey Holmes, 2/12th Bn, Archive No. S540, p. 65.

⁴⁸⁹ AWM52, 8/2/18, 4 Jan 43, 'Blast Bombs'. This document contains a covering note from Bgdr Wootton and a diagram that had been forwarded to 18 Bde HQ from 2/12th Bn who, with a detachment of 2/4th Fd Coy aided by Col Irwin, had devised the blast bombs. Wootton had sent the information to NGF HQ and HQ 32 US Division for their information. 7 Division units would use similar 'homemade' blast bombs on Shaggy Ridge approximately a year later, suggesting that a satisfactory issue weapon had not been produced in the interim.

⁴⁹⁰ Frank Hartley, *Sanananda Interlude: The 7th Australian Division Cavalry Regiment*, Melbourne: The Book Depot, 1949, p. 11. Hartley was the Chaplain to the regiment.

⁴⁹¹ Graeme-Evans, *Of Storms and Rainbows*, p. 325.

After the failed 18th Brigade attack on 12 January 1943, General Vasey would argue that they were ‘repeating the costly mistakes of 1915-17’ in ordering men to attack bunkers and pillboxes, with little more than small arms.⁴⁹² As Brune later highlighted, those directing the operations at Gona and Sanananda – including Vasey himself – made these mistakes continuously.⁴⁹³ This demonstrates a failure on the behalf of higher command to come to terms with the challenges posed by the new and, admittedly, difficult conditions of jungle warfare. McAulay’s statement that ‘no serious thought had been given to fighting in the Owen Stanley Ranges’ could just as accurately be applied to the conditions prevalent during the Milne Bay or Beachhead campaigns.⁴⁹⁴ That lack of forethought meant that the troops at the front had to adapt and improvise solutions in order to survive, overcome the terrain and weather, and eventually defeat the Japanese.⁴⁹⁵

It is arguable that some of the lessons learnt at Gona, Buna and Sanananda were not directly related to the terrain or the conditions the battle was fought in. Accurate intelligence, adequate time for thorough reconnaissance, appropriate levels of artillery and tactical air support, and training in infantry-armoured warfare tactics would have shortened the Beachhead campaigns. Nevertheless, even if all these problems had been identified and addressed prior to the battle, the very nature of the terrain and the weather would still have posed formidable challenges. Geography and weather forced modification to established procedures and tactics. The inability of most heavy weapons – especially artillery – to be moved over the Kokoda Track and around the Beachheads caused the Australians to fight differently from the manner in which they had become accustomed in the Middle East. Mobility and visibility – or observation – were the two most noticeable differences between the two theatres. Coming to terms with the reduction of both these variables, key elements in modern manoeuvre warfare, initially perplexed and confounded the Australians and their American allies.

⁴⁹² McCarthy, *South-West Pacific Area*, pp.516-7.

⁴⁹³ Brune, *The Spell Broken*, p. 243.

⁴⁹⁴ McAulay, *Blood and Iron*, p. 413.

⁴⁹⁵ As chapter one discussed, the Australian Army had devoted little attention to operating in the region to Australia’s north. Pre-war planning had concentrated upon operations in the Middle East or Europe supporting the British and faith in the efficacy of Fortress Singapore. This meant that virtually no planning had occurred with regard to New Guinea or the South-West Pacific islands.

Until the Australians adapted to the geography of the new theatre, and modified their tactics accordingly, they would struggle to defeat the Japanese.⁴⁹⁶ The formidable landscape combined with incessant rain reduced the pace of operations and limited the size of forces that could be employed. With movement in many cases only possible on foot, the ability to supply and support those forces was also drastically reduced. For the men on the ground, who had fought in North Africa, Greece, Crete and Syria, adapting to the new environment was therefore extremely difficult.

As this chapter has demonstrated, the vast majority of men who had served with distinction in those earlier campaigns, at least initially, found tropical jungle a fearful revelation. They found it hard to become accustomed to the lack of visibility and the claustrophobic feelings and stygian darkness that was the norm in the jungle. The ever-present threat of ambush, the need for constant watchfulness, of always being soaking wet and dirty, of there being no safe rear area to return to; all these combined to make jungle warfare an intensely unpleasant experience for the AIF. With very little of value able to be provided by Bennett and the Malayan campaign, the several months prior to August 1942 provided little meaningful jungle warfare training. At this stage of the war, training in Australia was unable to prepare troops for combat in the Pacific theatre.⁴⁹⁷ The best it could do was to make them fit.

The six months of combat that eventually culminated in victory at the Beachheads confirmed that in future all troops would need to train in jungle conditions. As discussed earlier, this had been realised in August by officers such as Potts and Rowell.⁴⁹⁸ As the battles progressed and more units gained experience in jungle warfare the body of knowledge was gradually increased. With many units having to fight within days of arriving in theatre, the opportunity to gain this experience and knowledge, however, came at a very high cost. Tactics that had worked in the earlier campaigns could not be translated unchanged to the jungle. Most notably, the large numbers of casualties which occurred as successive battalions attacked dug-in Japanese defences during the Kokoda and Beachhead battles – using the same tactics

⁴⁹⁶ Sholl, 'Points Noted and Lessons Learnt', p. 29.

⁴⁹⁷ Moremon, 'Most Deadly Jungle Fighters?', p. 79.

⁴⁹⁸ See pp. 225-6 of this chapter.

they had become standard in the Middle East and North Africa – demonstrated tactical naivety and inflexibility.

While the claim that there was ‘quick and thorough adaptation to the demands of tropical and bush warfare’ by the troops at the front, is not completely inaccurate, the price paid was unnecessarily expensive.⁴⁹⁹ Opportunities to better prepare 6th and 7th Division brigades were spurned by keeping them for too long in Australia. They should have been training in Papua prior to being rushed into battle in late August. The counter argument that Australia was under threat of invasion and as such needed to retain these units at home does not withstand detailed scrutiny. 14th and 30th Brigades were deployed to Papua when the threat to Australia was even greater and eventually flung into battle virtually untrained.⁵⁰⁰ It would have made more sense to hold them in Australia until they had attained a satisfactory skill level, and to have despatched 21st and 18th Brigades to Papua considerably earlier.⁵⁰¹ In this way the combat-hardened AIF units would have received experience in jungle terrain similar to that they would soon be fighting in, and the militia troops would have been brought up to a more adequate standard. That the militia units were forced to fight virtually untrained after months spent as labourers and navvies, is a telling indictment of LHQ and the officers who ordered their deployment.

Nevertheless, before the final defeat of the Japanese in late January 1943, measures had been put in place that would eventually see all future Australian troops far better prepared than the 21st and 18th Brigades had been in August 1942. The establishment of Canungra, the creation of appropriate jungle warfare training manuals, and the dissemination of lessons by LHQ Training Teams throughout formations in Australia, would ensure that the hard won experience would not be in vain. The training undertaken by the 6th, 7th and 9th Divisions on the Atherton Tablelands between March and September 1943 would be largely based upon the lessons of the first Papuan

⁴⁹⁹ McCarthy, *South-West Pacific Area*, p. 591.

⁵⁰⁰ Horner, *High Command*, p. 217. Horner has argued that Blamey and the Australian Chiefs of Staff believed that ‘two AMF Brigades would be sufficient to repel a seaborne attack, and that there was no chance of an overland advance on the town [Port Moresby].’ A third militia brigade, the 7th was sent to Milne Bay. None of the battalions in any of these formations were as well trained as the 7th Division’s Brigades. None of them had combat experience, except for a handful of their officers such as Brigadier Field, the 7th Brigade commander, who had until his appointment been CO of the 2/12th Bn.

⁵⁰¹ For a more detailed examination of the debate over the despatch of forces to Papua see McCarthy, *South-West Pacific Area*, p. 112, footnote 2.

campaigns. How useful and applicable these were, would be judged when the bulk of the AIF next saw action in the Huon Peninsula and Ramu-Markham campaigns between September 1943 and February 1944.

Chapter 6: ‘The ideal training ground’: Atherton Tablelands 1943

In the ongoing evolution of an Australian jungle warfare doctrine, 1943 was the seminal year. It would witness marked improvements in the standards of training and preparation for jungle warfare, as the lessons of Kokoda, Milne Bay and the Beachheads were permeated throughout the Army. This occurred primarily via the Australian Training Centre (Jungle Warfare) Canungra, Directorate of Military Training (DMT) publications, and through the Advanced Land Headquarters (Adv LHQ) Training Teams. As the plethora of after action reports from the first Papuan Campaigns were trawled through and the most important lessons extracted, the development of more appropriate training techniques, and eventually more appropriate doctrine, began to emerge. By the second half of 1943 the Australian Army was turning out soldiers who, having undergone training at Canungra based on a more appropriate syllabus, were far better prepared for the challenges of jungle warfare than had been the units rushed into battle in Malaya and Papua in 1942.

The urgent need to prevent the Japanese from overrunning all of New Guinea and Papua, and even Australia, had subsided after the dark days of 1942. The subsequent lull in operations, until September 1943, would allow for more calm reflection than had hitherto been possible.¹ It would also enable the battle-weary units of 6th and 7th Division to digest the lessons of their first jungle campaign, before passing them on to others. The focus of learning, adaptation and transition would then move upwards, away from the units themselves and into the realm of higher command.² The desperate strategic situation, which had seen units thrown piecemeal into battle with little real training in how to overcome the challenges posed by warfare in a tropical environment had, for the most part, disappeared. The experiential two-year period from February 1941 to February 1943 had passed. As a consequence the second half of 1943 would see the coalescing of the reports, suggestions and lessons, many

¹ As discussed below, apart from 17 Brigade, between February and September 1943 the vast majority of the AIF was not involved in combat operations. Several Independent Companies and field artillery regiments were supporting Militia operations, but the bulk of 6th, 7th and 9th Divisions were training on the Atherton Tablelands.

² This will be reflected in the relative paucity of primary source material from the unit and sub-unit level. Reports, discussions and conferences at the level of brigade, division, corps and above dominates this chapter, in marked contrast to the preceding chapters.

gained at great human cost, into the beginnings of a doctrine for future operations in the jungles of the South West Pacific.

For the AIF infantry divisions, however, February and March 1943 were largely spent in rest and recuperation.³ 16 Brigade of the 6th Division and all of 7th Division were recovering from the vicious and draining Papuan Campaign, while the 9th Division was making its way home after its crucial involvement in the Battle of El Alamein. The following six months of intensive training, culminating in the Ramu-Markham and Lae-Finschhafen Campaigns, would attempt to crystallise the experiences of the 6th and 7th Divisions.

This chapter will examine that training period – the first in jungle terrain similar to that which would be faced in subsequent campaigns – and identify how far the training was based upon the units' own experiences of jungle warfare, and whether appropriate doctrine and training manuals were now in place. It will investigate how the jungle warfare experienced units collated the lessons of their first campaigns, and the methods by which they passed on that knowledge to other units. A comparison with the inadequate training of the 7th Division before their 1942 Papuan Campaign, examined in chapter four, will reveal a marked contrast. This chapter will further demonstrate that with the rapid expansion of – and improvement in the standard of training – at Canungra, and the more systematic collection and more timely dissemination of 'lessons learnt' material by the DMT, this training period was more valuable for the AIF, and by extension the whole of the Australian Army, than that during the corresponding period in 1942.

The chapter will argue that 1943 set the course for the manner in which Australian jungle warfare operations would occur until the end of hostilities. It will also argue that much of the learning by the AIF throughout this period was based on exchange of information between units – both formal and informal. The majority of this information dealt with the tactical level: immediate action and contact drills; how to deploy sections and platoons in the jungle; siting of company defensive positions;

³ 17 Brigade of the 6th Division had begun arriving by airlift at Wau aerodrome from 14 January 1943. The majority of the brigade arrived on 28/29 January and were immediately joined the battle. Their experiences, and the lessons they gleaned therefrom will be discussed shortly.

which weapons and equipment were useful and which were not; and how to respond to Japanese infiltration and encirclement tactics. As lessons were learnt and practiced on jungle assault ranges and during exercises they were recorded before making their way up to DMT and LHQ.

What was missing until late 1943, however, was an understanding of the modifications to doctrine that needed to occur at the brigade level and above. As Coates has argued there existed no ‘overarching doctrine’ for operations in jungle and tropical theatres, as the army was still in ‘the trial and error stage of training and doctrine’ development.⁴ The vast number of reports that had been created during the first Papuan Campaign were still being digested and the DMT was desperately endeavouring to supply useful manuals to all those formations that had not yet served in a tropical theatre.⁵ By late 1943 many of these lessons had been accepted and were incorporated into unit training. For the first time the training manuals appearing in this period would provide relevant information that would enable units to provide more focused training. It would take until the second major training period on the Atherton Tableland in 1944-45, however, before the integration of the previous years of jungle warfare experience would result in the publication of more comprehensive training materials and better integration and understanding between the combat arms.⁶

‘Introduction to Jungle Training’: 9th Division learns of their new role

To continue tracing the evolution of Australian jungle warfare learning it is, however, necessary to return several months, and to a very different theatre of operations. By 4 November 1942, the involvement of the 9th Australian Division in the pivotal Battle of El Alamein was at an end. In the twelve days since the battle commenced on the

⁴ John Coates, *Bravery Above Blunder*, pp. 52-53.

⁵ Centre For Army Lessons (CAL), Allied Land Forces in the South-West Pacific Area – *Operations – Supplement to ‘Military Training Pamphlet (Australia) No 23. XX Jungle Warfare (Provisional) Notes for Platoon & Section Leaders’* would be printed in May 1943. It would not be distributed in time for all units of 7 and 9 Divisions to utilise it during the training period under review in the current chapter. Its creation will, however, be examined in detail later in the chapter.

⁶ Coates, *Bravery Above Blunder*, p. 52. Coates makes the point that at this stage each of the various arms was trying to adapt to the new challenges of combat in a tropical environment. In so doing they were focusing on ‘their’ problems to the detriment of the bigger picture. Although changes were beginning to occur – with greater emphasis upon battalion and brigade exercises involving all the combat arms – this too would take until the 1944-45 training period before it would be addressed in detailed training manuals.

night of 23/24 October, the 9th Division had fought magnificently and suffered a disproportionate number of casualties.⁷ For the next two months it would rest, integrate reinforcements and continue to train in preparation for its next role.⁸ Although the division was on the other side of the world, this did not mean that it was uninformed of the events occurring in the SWPA. The 9th Division war diary makes it clear that from early 1942 reports on the Japanese, their tactics and methods were being received.⁹ Regular intelligence summaries, based upon those reports and on lectures given by ‘officers with first-hand knowledge of the Japanese’ were compiled and distributed down to Brigade level.¹⁰ Several of the suggestions on how best to combat Japanese tactics, especially the need for ‘a system of continuous patrols’ and ‘early resolute assault’ were already second nature to the 9th Division.¹¹

In the first week of December 1942, the 9th Division commander General Morshead had cabled General Blamey asking him: ‘Having regard to our future employment is there any particular form of training you wish us specially to practice?’.¹² The oft-quoted reply; ‘One: Combined Training and Opposed Landings. Two: Jungle warfare’, actually continued with more detail and demonstrated that even at this stage of the war, the belief that it was possible to train for jungle warfare when not in the jungle was still prevalent.¹³ Blamey’s reply stated that although it wasn’t as ‘close as desirable for purpose there is considerable amount of rough scrub country near Beit

⁷ Nigel Hamilton, *Monty: The Making of a General 1887-1942*, London: Hamish Hamilton, 1981, p. 846. Mark Johnston & Peter Stanley, *Alamein: The Australian Story*, South Melbourne Vic: Oxford University Press, 2002, pp. 261-265.

⁸ R. P. Serle (ed), *The Second Twenty-Fourth Australian Infantry Battalion of the 9th Australian Division*, Brisbane, QLD: Jacaranda Press, 1963, p. 6. While it was possibly extreme, the reaction by the historian of the 2/24th Bn upon learning that they were to return to fight in the jungle was not unique: ‘It was with bitter disappointment, in many cases, that we learned that we were to return to Australia to fight in the SWPA. We regarded ourselves as highly competent open-warfare experts, and did not relish the thought of relinquishing our vehicles and heavy weapons and converting to a “jungle battalion”’.

⁹ AWM52, 1/5/20, 9 Australian Division General Staff Branch (hereafter 9 Aust Div GS Branch) 24 February 1942, Appendix A to 9 Aust Div Intelligence Summary No. 207, ‘Japanese Tactics’; 2 March 1942, Appendix B to 9 Aust Div Intel Summary No. 208, ‘Japanese Combined Operations – Detail of Landings at Kota Bharu’ and 20 March 1942, Appx A to 9 Aust Div Intel Summary No. 219, ‘The Japanese Army in Malaya’. (Earlier Intel Summaries from December 1941-February 1942 contain paragraphs on the fighting in Malaya but are less detailed.)

¹⁰ Coates, *Bravery Above Blunder*, p. 47. As Coates mentions, one of these reports, ‘Impressions of Japanese Qualities’, was compiled by an officer of 18 Bde who had served alongside 9th Division at Tobruk and had then gone on to fight at Milne Bay. His report is succinct and quite accurate.

¹¹ AWM52, 1/5/20, 9 December 1942, 9 Aust Div Intel Sum No. 356, ‘Impressions of Japanese Qualities’. Coates, *Bravery Above Blunder*, p. 47 expands on this point.

¹² 3DRL/6643, Private Papers of Field Marshal Sir Thomas Albert Blamey, Series 2 of 2, Wallet 138 of 141, 2 December 1942.

¹³ 3DRL/6643, ‘From NGF. Personal for General Morshead from General Blamey’.

Jibrin'.¹⁴ In an attempt to undertake the requested training all three brigades of 9th Division 'carried out "enclosed country" exercises' during January 1943.¹⁵

One advantage 9th Division had over both 6th and 7th Division in 1942 was the number and variety of training manuals and 'lessons learnt' documents available to assist with the preparation of those exercises. These included the full 'Notes on Ops in Malaya' discussed in chapter two, which were based upon interviews conducted by General Allen and Brigadier Berryman the day after the fall of Singapore, and 'Notes on Ops at Milne Bay', compiled from 7 and 18 Brigades after action reports.¹⁶ Also included was *MTP No. 9 (India) Notes on Forest Warfare*, which had been supplied to 8th Division in Malaya and to 6th Division on Ceylon.¹⁷ A sufficient number of these reports were supplied to the Brigades to enable them to prepare training exercises for both platoons and companies. As each Brigade had only been allocated three days for training it is, however, open to question how much information was able to be imparted before they boarded their respective troopships on 25 January.

The usefulness of this training period – even with more suitable training materials – is difficult to determine, with judgements ranging widely. 2/13th Battalion stated that the 'exercises gave valuable trg in movt over mountainous country and some interesting lessons were learned'.¹⁸ The 2/23rd was slightly more guarded but on balance believed that it had been useful:

¹⁴ Ibid.

¹⁵ Serle (ed), *The Second Twenty-Fourth Australian Infantry Battalion*, p. 235. See also AWM52, 1/5/20 '9 Aust Div Trg Instn No. 30' 6 Jan 43. This training instruction listed the three-day training periods allocated to each of the Division's Brigades in the scrub of the Hebron Hills. See also, Hugh Gillan (ed), *We Had Some Bother: 'Tales from the Infantry'*, Sydney NSW: Hale & Iremonger Pty Ltd, 1985, p. 101, 15 January 1943, 'Yesterday we were out on manoeuvres practising jungle and mountain warfare'.

¹⁶ AWM52, 1/5/20, '9 Aust Div Trg Instn No. 29: Liddington', 3 Jan 43. [Liddington was the codename of the convoy that would take 9 Division back to Australia.] Interestingly, it was the British report by Brigadier Stewart and not Gen Bennett's that was supplied to 9 Division, supporting the argument posited in chapter two that ultimately Bennett's information was not crucial.

¹⁷ AWM52, 1/5/20, '9 Aust Div Trg Instn No. 30', 6 Jan 43. Why such an early edition of *MTP No. 9* was supplied to 9th Division has been impossible to determine. 8th Division in Malaya and 6th Division on Ceylon had both received the same 1st (1940) edition. The 2nd (Jan 1942) edition was received in Australia in mid-1942. It should therefore have been available to 9th Division in early 1943. Copies of later editions – August 1942 and September 1943 – appear in the Australian War Memorial collection, but it is not known when the Australian Army received copies, nor whether they were utilised.

¹⁸ AWM52, 8/3/13, 14 January 1943.

A final trg exercise was carried out at Hebron by all companies, giving us our first taste of what to expect in jungle warfare. Perhaps the Hebron area was not really jungle, but it served the purpose.¹⁹

The most equivocal, and arguably most realistic, appraisal appeared in the 24th Brigade's war diary. It argued that 'the site was timbered with olive trees but was not a suitable one to present a realistic demonstration of jungle fighting'.²⁰ Possibly of more benefit were the lectures presented by Major H. T. Allan of 20 Brigade, who had worked in the Wau-Salamaua area prior to the war.²¹

In the few weeks before they departed the Middle East, 9th Division also attempted to address the other part of General Blamey's instruction: combined operations and opposed landings. To this end, personnel from each of the Brigades – generally the Brigade commander, his Brigade Major and Staff Captain, as well as a selection of officers from each battalion – were sent to Kabrit in Egypt to the British-run Bitter Lakes Amphibious Training School.²² As there was only time for a few officers to attend Bitter Lakes it is again open to question how useful the training was. Unlike 6th and 7th Division units before them, however, 9th Division would have time once in Queensland to adequately prepare for both jungle warfare and amphibious operations.

Training continued on the month-long voyage home, but due to limitations of space this was restricted to physical training, TEWTs and daily lectures. The aforementioned Maj Allan presented many of these lectures to 20 Brigade personnel, both officers and NCOs.²³ The officers of 2/13 Bn were divided into 'syndicates' and then had to present lectures to the rest of the unit. As the war diary stated, these:

Subjects have been chosen by CO from latest available pamphlets from Australia and would mostly deal with Japanese Army and Tactics, and lessons learnt from Pacific operations.²⁴

¹⁹ Pat Share (ed), *Mud and Blood "Albury's Own", Second Twenty-Third Australian Infantry Battalion*, Frankston, Victoria: Heritage Book Publications, 1978, p. 238.

²⁰ AWM52, 8/2/24, 7 January 1943.

²¹ AWM52, 8/2/20, 2 February 1943. Onboard ship.

²² AWM52, 8/2/24, 1 January 1943. See also AWM52, 8/3/32, 1-7 January 1943 and Serle (ed), *The Second Twenty Fourth Australian Infantry Battalion*, p. 235.

²³ AWM52, 8/2/20, 2 Feb 43.

²⁴ AWM52, 8/3/13, 15 Feb 43.

For those units onboard other ships without the benefit of Maj Allan's experience, lectures along similar lines were also the order of the day.²⁵ By late February the 9th Division had arrived in Australia.

After a period of leave the Division would concentrate on the Atherton Tablelands in April. Prior to that, in at least one instance, a repeat of the 7th Divisions' experiences of the previous year would occur. The 2/28th Battalion, a Western Australian unit, received its first training instruction for jungle warfare as it was reforming in Perth. They attempted to put this into practice, as the 2/14th had tried to do in the Echunga region of South Australia a year earlier, but like the 2/14th, had to admit that 'the local terrain does not lend itself particularly to this type of warfare'.²⁶ Once on the Tablelands the real jungle warfare acclimatisation and training would begin. Before then it is necessary to examine the experiences of 17 Brigade, who, as the 9th Division were steaming towards Australia, were fighting desperately to prevent the Japanese from capturing Wau aerodrome.²⁷ The lessons they would feed back to the mainland over the following eight months would contribute to the growing body of Australian jungle warfare knowledge. Most importantly, the lessons from 17 Bde, and later 3rd Division, would be incorporated by the General Office Commanding (GOC), Lt-Gen Savage into his 'Tactical Doctrine for Jungle Warfare' manual that would be prescribed for all 2 Corps troops.²⁸

'The heart of the jungle-covered ranges': 17 Brigade in the Wau-Salamaua Campaign

As discussed in the previous chapter, 17 Brigade had spent the last three months of 1942 at Milne Bay. Valuable experience in jungle conditions was gained, although

²⁵ AWM52, 8/3/32, 8-17 Feb 43. Each company of the 2/32nd Bn, for example, received lectures on topics such as 'Malayan Operations' and 'Conditions in New Guinea'.

²⁶ AWM52, 8/3/28, 27 March 1943. See chapter four, p.132 for 2/14th Bn trying to train for jungle warfare in the rolling farmland and broken scrub of Echunga, southeast of Adelaide.

²⁷ In January and February 1943, 6th Division was still widely fragmented. After the Kokoda and Beachhead campaigns, 16 Brigade sailed from Port Moresby for Australia during January. HQ 6 Div would sail in early February establishing camp at Wondecla on the Atherton Tablelands in March. 19 Brigade was still dispersed, with 2/11th Bn deployed along the WA coast in defensive positions, and 2/4 and 2/8 Bns providing the most experienced portion of Darwin's defence force. In June 1943 19 Brigade would move to Qld and begin training for jungle warfare. For more information on movements of 6 Division in this period see AWM52, 1/5/12, Jan, Feb and Mar 43.

²⁸ AWM54, 923/4/1, 'Tactical Doctrine for Jungle Warfare applicable to all formations under Command 2 Aust Corps' prepared by Lt-General Savage. This manual will be discussed later in this chapter, and peripherally in chapter seven, as it was used by AMF forces on Bougainville, but not to any great extent by the AIF Infantry Divisions.

much of their 'time was spent making roads and unloading ships'.²⁹ Another problem was the ongoing lack of effective disease-control measures at Milne Bay, which meant that many hundreds of soldiers contracted malaria and therefore went into battle already debilitated.³⁰ Last minute preparations in Port Moresby before the flight to Wau included the issuing of green face veils to all 2/7th Bn personnel.³¹ This attempt at camouflaging white faces that stood out like beacons amongst the darkness and shadows of the jungle would go no further.³² Upon arrival at Wau elements of all battalions found themselves in action, some within minutes of deplaning.³³ Soon after their arrival three of the most common problems of jungle warfare made their presence felt to 17 Brigade – lack of visibility, difficulty of command and communication, and the necessity for the wide dispersal of a commanders' forces, whether companies, platoons or, at times, sections.³⁴

The 8th Division in Malaya and the 7th Division during the first Papuan Campaign had identified these problems. But, notwithstanding training or preparations for these challenges, the first time a unit encountered them they caused difficulties that had to be overcome anew. The lack of any overarching doctrine, as mentioned earlier, saw each unit or formation confronting and attempting to solve the problems posed by jungle warfare on an individual basis. While the solutions they arrived at generally coalesced, at this stage of the war DMT and LHQ were unable to provide satisfactory guidance and training materials. Units were therefore forced to learn lessons that

²⁹ Speed (ed), *Esprit De Corps*, p. 216.

³⁰ Hay, *Nothing Over Us*, p. 255. At the end of its deployment at Milne Bay, the 2/6th Bn was 300 men short of its War Establishment. The other battalions were similarly affected. Anti-malarial measures had improved since the Aug-Sep battle but Milne Bay was still one of the most malarious regions of Papua.

³¹ AWM52, 8/3/7, 4 Jan, Movement Order No. 1. Suggestions that camouflaged face veils be issued to all units involved in jungle warfare had appeared at irregular intervals, but do not appear to have been followed up. It has not been possible to find any further reference to these face veils, or to locate any photographs depicting personnel wearing them. 2/5 and 2/6 Bns War Diaries make no mention of a similar issue. It is doubtful whether any experienced soldier would have chosen to use these veils, as they would have had a detrimental effect on visibility.

³² As discussed in the previous chapter, some attempts at camouflaging the skin had been made by 7th Division, but none had been truly successful. See for example the statement by Lt Mason, 2/14th Bn, during the Kokoda Campaign, p. 202. No effective camouflage cream had been developed by 1945. Men therefore rubbed mud and charcoal into their faces to darken them.

³³ AWM52, 8/2/17, 29 January 1943.

³⁴ A fourth problem, the difficulty of effectively using supporting fire, whether artillery or airstrikes by ground attack aircraft, will be dealt with shortly.

others had learnt at an earlier date.³⁵ 17 Bde, being isolated in Wau, and in combat, clearly could not wait for more comprehensive tactical or doctrinal instructions to arrive from Australia. The situation demanded that they – like 7th Division before them on the Kokoda Track and at Milne Bay – learn by trial and error. As with 7th Division this method of learning whilst in action led to men losing their lives unnecessarily, although not on the same scale as on the Track or at the Beachheads.

Between 28 January and 6 February, the Brigade would be involved in several major engagements, eventually resulting in the defeat of the Japanese forces attempting to capture Wau aerodrome. From the outset, the nature of the terrain and climate in the Wau-Salamaua Campaign would dictate both the scale and the pace of operations, arguably to a greater extent than at Milne Bay or the Beachheads.³⁶ All men, weapons, rations and equipment had to be airlifted into Wau, or airdropped at various Australian camps, such as the Summit, Skindewai and Ballams. The regular cloud cover and violent tropical downpours severely constrained these re-supply flights. Even the initial actions around Wau aerodrome between sizeable forces, with artillery and tactical air support and – at least for the Australians – short lines of communication, were highlighted by the confused and fragmented nature of the fighting. On the day they landed, individual platoons and sections of 2/7th Bn were sent in different directions to try and identify the main thrust of the Japanese advance.³⁷ With little knowledge of the surrounding area and inadequate maps, they – and their sister battalions – became involved in a series of actions with a virtually unseen enemy who could appear from any direction.³⁸

The 17 Brigade war diary for 1 February highlights the difficulty of commanding and coordinating units in mountainous jungle terrain. Multiple reports from the battalions

³⁵ As discussed in the previous chapter, 17 Bde had received copies of some 'Lessons Learnt' documents and after action reports from 7th Division, but would still need to take from those reports the information that they believed would be valuable, and applicable in their current circumstances.

³⁶ The razorback ridges along which the majority of this campaign was waged meant that logistics was a greater problem than at either Milne Bay or the Beachheads. While the weather was similarly challenging, supplies could be brought in by ship during both those campaigns. This was clearly not the case during the majority of the Wau-Salamaua campaign. Once the landings at Nassau Bay occurred on 29/30 June, this changed and a proportion of the force could be supplied by sea.

³⁷ AWM52, 8/3/7, 29 January 1943.

³⁸ The Japanese were, like the Australians, largely constrained by the terrain, which determined lines of approach to Wau. The one advantage the Japanese had in the initial encounters was that the Australians did not know of the existence of the 'Jap Track'. The Japanese infiltration tactics were also aided by thick jungle, which at least initially causing consternation.

listed the enemy being sited on their flanks, to their rear and even between companies and platoons.³⁹ As 7th Division had found on the Kokoda Track, in jungle warfare, all-round defence and self-sufficiency down to the smallest subunit, the rifle section, were critical. Command was made more difficult with a battalion commander as likely to find himself under attack at Battalion Headquarters, as the lead section of his advancing company several hundred yards away.⁴⁰ The ability to provide supporting fire, as was the norm in the North African and the Mediterranean theatres, was made immeasurably more challenging in this terrain. As the 2/7th Bn discovered, 'owing to the dense jungle and the deep re-entrant C Coy were unable to give fire support to A Coy'.⁴¹ With visibility often restricted to feet or yards, platoons and companies were frequently unable to see each other, let alone the enemy that their neighbour was engaging. For the individual soldier this difference between the North African and Wau campaigns was as much psychological as it was physical:

It was all little skirmishes all the time. There was no front line...You could guard this track. But they could still infiltrate and be going down along the rivers or through the scrub and around you.⁴²

The ability to adjust one's outlook to a very different form of combat, to be comfortable operating in sections or three man patrols, to be without contact with company or battalion headquarters for days at a time, to have little or no fire support – these were some of the new demands of jungle warfare.

After the defeat of the initial attacks 17 Brigade settled into a long period that one battalion history has called the 'weary months'.⁴³ Slowly and painstakingly, 17 Brigade and the Independent Companies, forced the Japanese back over the ranges north towards Salamaua.⁴⁴ As the 2/5th Bn's historian would state:

Gone were the days of battalion attacks or the advance of large bodies of troops. On some occasions company strength attacks would take place when

³⁹ AWM52, 8/2/17, 1 Feb 43.

⁴⁰ AWM52, 8/3/7. 30 Jan 43. On this day the 2/7 Bn WD records that 'Bn HQ had not escaped without attention from the enemy. A small party had worked their way through the long grass to the BHQ area and shots were exchanged'.

⁴¹ Ibid.

⁴² DVA, AAWFA, Francis Hall, 2/7 Bn, Archive No. 2053, Transcript, time: 5.05.30.00.

⁴³ Speed (ed), *Esprit De Corps*, p. 299.

⁴⁴ The various units defending Wau, now including 17 Brigade, 2/1st Fd Regt and two Independent Companies, would grow over the course of 1943. The expanded Brigade Group would eventually lose its designation of Kanga Force when Maj-Gen Savage arrived as Commander of 3rd Division and set up his headquarters, initially at Wau and then at Bulolo. 15 Brigade – a militia formation – of 3rd Division saw action for the most part in the Bulolo-Markham area.

the enemy held a larger area, but it was usually a war between small bodies of men up and down tracks and across razor-back ridges.⁴⁵

The harsh climate and mountainous terrain, the equal of the Kokoda Track, contributed greatly to the nature of the combat. For all involved it was a miserable campaign:

Such conditions of rain, mud, rottenness, gloom, and, above all, the feeling of being shut in by the everlasting jungle and ever-ascending mountains, are sufficient to fray the strongest of nerves. Add to them the tension of the constant expectancy of death from behind the impenetrable screen of green, and nerves must be of the strongest, and morale of the highest, to live down these conditions.⁴⁶

The appalling conditions and disease would mean that:

No company is at full strength in New Guinea... Our company [was] down to 40 odd men... They were evacuating left right and centre and you'd take two men to carry one man out and sometimes four.⁴⁷

Even if a man did not have malaria, the conditions were extremely trying. General Savage would later state that in the Wau-Salamaua Campaign 'man management [was crucial] the men were wet all the time. They tended to become depressed and depression led to actual illness'.⁴⁸ According to Bergerud, man management and logistics were the crucial roles of commanding officers in jungle warfare:

Officers commanding units above a company had little opportunity to maneuver in the South Pacific. Their skills were more mundane, although frequently just as important. They kept the supplies coming and saw to the basic deployment of their troops...The ability to observe the battlefield and thus wield effectively the weapons of mass destruction rarely existed in the South Pacific.⁴⁹

As commanders had discovered during the Kokoda Track Campaign, with visibility frequently measured in feet or yards, once they had deployed their forces, they could do little more than wait for reports to come in. When they eventually did, the commander would attempt to build from those scraps of information a picture of the

⁴⁵ Tregellis-Smith, *All the King's Enemies*, p. 192.

⁴⁶ 'Report on Operations 3 Aust Div in Salamaua Area 23 April to 25 August 1943' cited in David Dexter, *The New Guinea Offensives: Australia in the War of 1939-1945*, Vol VI (Army), Canberra: Australian War Memorial, 1961, p. 21.

⁴⁷ DVA, AAWFA, Wallace Cameron, 2/6th Bn, Archive No. 1133, Transcript, time: 7.08.00.00. An infantry company should have consisted of approximately 130 soldiers with each platoon being 33 men.

⁴⁸ Keating, *The Right Man for the Right Job*, p. 99. This quote is taken from an interview that Gavin Long, the chief historian at the Australian War Memorial conducted with Savage in 1944.

⁴⁹ Eric Bergerud, *Touched with Fire: The Land War in the South Pacific*, New York: Penguin Books, 1996, p. 279.

battle and respond accordingly. It may have become a cliché but there is some truth in the statement that ‘battles in the South Pacific were run by captains, lieutenants, or sergeants’.⁵⁰ A company or battalion commander was more likely to be ensuring that his platoons and sections engaged in combat were kept supplied with ammunition and that casualties were evacuated and any reserves deployed then he was to be making tactical changes. For Grey the operational level of command in the SWPA was higher than Bergerud claims, being ‘invested often at brigade and battalion level, where tactical control was of the highest order’.⁵¹ Both would presumably agree with the argument that in the SWPA, operational control resided at a lower level that had hitherto been the norm.

For much of the Wau-Salamaua campaign the role of a commander as a man manager was central. The competing demands of infantry patrol work, the evacuation of casualties, the construction and repair of tracks and footbridges, and the re-supply of forward units, all required his attention. Often these demands could not be resolved to the satisfaction of all concerned. As the 2/5th Battalion noted, ‘the evacuation of wounded presents a serious problem – 200 natives required to evacuate 8 casualties to Skindewai thus disrupting fwd supplies’.⁵² With tracks following the narrow and precipitous ridgelines, it was often impossible to have two units moving forward and back at the same time. Thus the evacuation of casualties at times prevented adequate supplies being moved forward for an attack. The deep mud churned up by thousands of feet and dozens of hooves exacerbated this problem.⁵³

Although every movement was of necessity measured in hours not miles, these unavoidable delays repeated – albeit on a reduced scale – the disagreements seen in the Kokoda Campaign. The 2/5th recorded that the terrain and distances meant that several days elapsed before their patrols could report their findings to Brigade thus undermining ‘the Force Commander’s desire for quick results...[and that]...the rift between BHQ back in Wau and the command up at the sharp end of the battle was becoming obvious’.⁵⁴ An officer of the 2/6th noticed the same problems:

⁵⁰ Ibid.

⁵¹ Grey, *A Military History of Australia*, p. 177.

⁵² AWM52, 8/3/5, 29 Mar 43.

⁵³ Hay, *Nothing Over Us*, p. 258.

⁵⁴ Tregellis-Smith, *All the King’s Enemies*, p. 212.

Messages and signals would come down to battalion HQ asking us to do certain things which on the map looked simple and straightforward, but which on the ground were often nearly impossible.⁵⁵

Notwithstanding this, various senior officers would, in contrast to Kokoda, move forward from Wau to see for themselves the difficulties under which their men were operating.⁵⁶ Brigadier Moten would mention in passing that the terrain was ‘not normal country for infantry’.⁵⁷ Further, he would record what all who had served in a similar environment had been forced to admit (chiefly) that:

The rugged terrain of the Wau-Salamaua area has proved equally difficult for both own tps and enemy. The plan of campaign throughout has been governed by “Q” considerations...the task of Kanga Force has been dictated by supply problems.⁵⁸

This realisation occurred more quickly for those having to face the challenges on a daily basis than for those who were watching the – as far as they were concerned – overly slow progress across their maps at NGF and LHQ.⁵⁹

Gradually the units operating in this campaign arrived at a situation whereby all the tasks required of them could be completed. This usually involved a period of several weeks in the frontline followed by several weeks assisting the engineers on track repair and construction, shorter periods of infantry training whilst in camp at Wau, and several days carrying supplies forward to augment the native carrier lines. During late February and most of March the 2/7th Battalion schedule was as follows:

For the first three days each Coy would have one pl patrolling, one pl on road work and one pl on training period and on the fourth day the whole Bn would concentrate on road work in order to assist the Engrs in finishing the job ahead.⁶⁰

Another crucial engineering task, and one that would become a feature of all subsequent jungle campaigning, ‘was the laying of booby traps round the positions of defending infantry with the object of discouraging Japanese penetration’.⁶¹ Soon the

⁵⁵ Bennett, *Rough Infantry*, p. 161.

⁵⁶ These included Generals Savage and Berryman, and Brigadier Moten.

⁵⁷ Bolger & Littlewood, *The Fiery Phoenix*, p. 246.

⁵⁸ AWM52, 8/2/17, May WD Appendices, ‘Report on Operations Period 1 Mar to 31 Mar 43’, p. 3.

⁵⁹ As Keating has discussed, there were disagreements between Generals Herring and Savage during this campaign. Many of these problems centred on the fact that Herring and his staff had not visited the area and as such could have no real conception of the difficulties faced by Savage, Moten and the men on the ground. See Keating, *The Right Man for the Right Job*, p. 132.

⁶⁰ AWM52, 8/3/7, 21 Feb 43.

⁶¹ McNicoll, *Ubique*, p. 177.

engineers were demonstrating to the infantry units how to set and camouflage their grenades and trip wires and, equally as important, how to deactivate them the next morning if the enemy had not tripped them.⁶² The increased importance of booby-traps in jungle warfare would see a large section on them appear in *MTP No. 23: Jungle Warfare*, which would be published by DMT and LHQ in mid-1943.⁶³

With the numerous engineering tasks beyond the capabilities of the 2/8th Fd Coy, the pioneer platoons of each of the battalions of 17 Bde were 'made available' to that unit.⁶⁴ Even this measure would not be enough, and as had occurred on several prior occasions, most notably at Milne Bay and Ceylon, the rifle companies of each battalion were required to work as labourers on a regular basis. As the units were rotated in turn back to Wau, they found themselves subject to the same modifications to war establishment that most of the infantry divisions in Australia were undergoing.⁶⁵ The main changes, which would be of great benefit in mountain and jungle terrain, were the introduction of an MMG platoon of four Vickers guns and the expansion of the mortar platoon to eight 3-inch mortars.⁶⁶

Throughout 17 Bde's deployment the diversion of infantry personnel to assist with engineering tasks became standard. In fact as one 17 Bde report stated, in the type of terrain faced by the brigade 'the work of an Inf Bn can be estimated as being 60% construction and 40% operations'.⁶⁷ One company from each of the three infantry battalions would be engaged in track work on a rotational basis.⁶⁸ In New Guinea, however, the weather regularly intervened and required unforeseen changes to daily routines. In late March torrential rainfall caused seventeen different mudslides to block the track to Edie Creek. 2/7th Bn had to supply nearly 100 men to work for

⁶² Reginald Davidson, *With Courage High: The History of the 2/8th Field Company Royal Australian Engineers, 1940-1946*, Melbourne: 2/8th Field Company, RAE Association, 1964, pp.113-4. (Jungle warfare against the Japanese would see an increased incidence of friendly casualties due to booby traps set and not deactivated each morning.)

⁶³ *Military Training Pamphlet No. 23* will be discussed in detail below.

⁶⁴ AWM52, 8/3/7, 14 Feb 43.

⁶⁵ Grey, *The Australian Army*, p. 149. Initially the four divisions chosen to become 'jungle infantry' divisions were 5th, 6th, 7th and 11th. When they returned to Australia, 9th Division would become the fifth division to undergo the changes. These changes will be discussed shortly. (3rd Division would be the sixth to undergo the changes, but as a militia formation has little bearing upon this study.)

⁶⁶ Speed (ed), *Esprit De Corps*, p. 232. The Carrier Platoon was moved into a Divisional pool. The reasons behind these changes will be examined later in this chapter.

⁶⁷ AWM52, 8/2/17, Kanga Force 'Report on Operations 1 Apr to 23 Apr 43', p. 1.

⁶⁸ AWM52, 8/2/17, 9 & 13 Mar 43.

several days on repair work.⁶⁹ This diversion of infantry – and at times artillery personnel – to perform road and track work, or to carry supplies to frontline positions, would be repeated during the 7th Divisions Ramu Markham Campaign and the 9th Divisions Lae-Finschhafen Campaign. Powell's statement with regard to natives on construction duties on the Wau-Bulldog Rd, that 'there was never enough native labour' was also applicable to the movement of supplies and the evacuation of casualties.⁷⁰ The appalling terrain, which was almost completely inaccessible to vehicular traffic, and the vast distances, proved to 17 Bde, as it had to those who had fought in the first Papuan Campaign, that jungle warfare in mountainous terrain was more arduous and demanding of the AIF than any previous campaign. It was in an attempt to relieve some of that burden that two different solutions – one ancient and one modern – were introduced and expanded respectively.

'Moving the guns wasn't easy': The problems of the supporting arms

The first of these, pack transport, had been operating in the Crystal Creek-Wau-Black Cat Mine area from October 1942, but as the roads around Wau were gradually improved it was felt they were no longer needed.⁷¹ With the arrival of 17 Bde however, the 17 Brigade Pack Transport Unit was reinstituted and provided valuable service for several more months.⁷² As the animals churned up the tracks with their hooves and required much fodder, however, jeeps, native carriers and airdropping gradually replaced them.⁷³ Supply by air to dropping grounds and thence by foot to various company and platoon positions became the norm in this campaign.⁷⁴ In some especially inaccessible locations, however, the loss rate from airdropping was so prohibitively high – between 50 and 95% – that alternative methods had to be tried.⁷⁵ When they became more freely available the use of parachutes proved successful and recovery rates improved dramatically.⁷⁶ Messages from Brigade were also dropped to

⁶⁹ Ibid, 22 Mar 43.

⁷⁰ Powell, *The Third Force*, p. 37.

⁷¹ Bolger & Littlewood, *The Fiery Phoenix*, pp.231-232.

⁷² It also operated in the Sunshine-Bulolo area supporting the 15 Aust Inf Bde, a militia formation.

⁷³ Bolger & Littlewood, *The Fiery Phoenix*, p. 231.

⁷⁴ It had, of course, been used during the Kokoda Campaign, but in this campaign it was the only practical means of supplying forward locations. Throughout the Kokoda Campaign, some supplies still came overland from Port Moresby.

⁷⁵ AWM52, 8/2/17, 30 Apr 43.

⁷⁶ AWM52, 8/3/7, 14 Apr 43.

forward units, in an attempt to speed up the transmission of orders.⁷⁷ The use of aircraft to augment the limited artillery support available also went through a series of experiments and changes.

Tactical air support had already been used in jungle conditions, most notably during the first Papuan Campaigns, although with limited success.⁷⁸ As a consequence of the problems experienced in those campaigns, changes were instigated to ensure that in future greater co-ordination between the army and air force could occur.⁷⁹ One of the first of these involved the appointment of Air Force Staff Officers 'to headquarters of Army formations in order that Direct Air Support and Army Co-Operation generally should be implemented to the fullest possible extent'.⁸⁰ Over the course of 1943 improvements would continue to be made to close air support doctrine and procedures. The 7th Division's Ramu-Markham Campaign, and in particular the assault on Shaggy Ridge would see considerably better air support than had been evident previously. For the Wau-Salamaua Campaign, however, weather and the commensurate target identification problems would reduce the effectiveness of air power.

Once Kanga Force had pushed the Japanese beyond the effective range of the 25-pounders of 2/1st Fd Regt firing from Wau, their only artillery support were the mountain guns of 1st Mountain Battery.⁸¹ To compensate, aircraft of the US Fifth Air Force, including the Australian 22 Squadron, provided ground attack aircraft.⁸² As the

⁷⁷ Ibid, 15 Apr 43. Wirraway aircraft of No. 4 Army Cooperation Squadron based at Port Moresby dropped these messages.

⁷⁸ *Journal of the Australian War Memorial*, No. 21, October 1992, George Raudzens, 'Testing the air power expectations of the Kokoda Campaign: July to September 1942'. See especially pages 24-26.

⁷⁹ AWM54, 85/3/8, 'Air Support during recent operations in New Guinea – Papers on Close Air Support Doctrine – Sep 42-Jan 43'. This 10-page report covered in great detail the challenges to tactical air support posed by jungle terrain, and recommended many improvements. Some of these would be in place for the Wau-Salamaua Campaign, but others – especially accurate direction of aircraft onto targets and the frequently appalling weather conditions – continued to cause problems. See also Nicola Baker, *More Than Little Heroes: Australian Army Air Liaison Officers in the Second World War*, Canberra: Strategic and Defence Studies Centre, ANU, 1994, especially pp. 70-77.

⁸⁰ NAA, MP742/1, item 240/1/504, 'Army/Air Co-Operation Policy'. (This file contains a series of letters between various headquarters discussing Army-Air co-operation in late 1942 and early 1943. The above quote is taken from a letter sent by the CGS to the Air Board on 18/2/43.)

⁸¹ After serving at the Beachhead battles the Battery had returned to Port Moresby to train before being flown into Wau in late February. They would serve in the Wau-Salamaua Campaign until August.

⁸² The intricacies of the Australian-US alliance with regard to air support are examined by a participant, Captain H. Phillip Braddock, 'A Story of Army Air Co-Operation in the Second World

Air Force Official Historian would later state, however, ‘the value of these activities was limited by the difficulty of seeing the enemy from the air’.⁸³ This major drawback would cause repeated problems, the most frequent being that the attacking aircraft found it extremely difficult to hit the targets that the army believed they had identified.⁸⁴ The difficulty of accurately identifying targets would also, on occasion, lead to friendly casualties.⁸⁵ These were not always due to inaccurate bombing, but also the exigencies of the terrain. As a 17 Bde war diary entry would state:

Both Army and Air Force doctrine on Air Support laid down that normally our troops should not be closer than 500 yds to the bomblines...In closely wooded jungle country it appeared to be necessary that troops in close support of an air strike take greater risks in relation to Start Line and Bomb Line, to allow them to reach their objective before the enemy could recover from the air attack.⁸⁶

As discussed in chapter five, prior to an attack in thick jungle country, the FOO and the attacking infantry frequently approached as close as possible to the Japanese positions. This meant that as soon as the supporting fire – whether mortar, artillery or tactical air – lifted, they could charge the remaining distance before the surviving Japanese had come to their senses and returned to their bunkers or gun positions. To wait 500 yards from a defended Japanese position – a reasonable distance in the North African or Mediterranean theatres – and then to attack would have been suicidal. Five hundred yards over jungle-strewn razorback ridges in the Wau-Salamaua area could take several hours to traverse.⁸⁷ With the Australians ‘gradually learning that only direct hits by supporting aircraft and artillery would be of much value’ the necessity to ‘hug’ the target area prior to an attack was self-evident, if highly dangerous.⁸⁸ As a consequence of the difficulties of employing air support, the battalions preferred to rely upon artillery. For the artillery units, however, operating

War’, pp. 61-71, *Journal of the Royal United Services Institute of Australia*, Vol 17, Nov 1996, pp. 61-71. See especially pp. 64-5.

⁸³ George Odgers, *Air War Against Japan: 1943-1945, Australia in the War of 1939-1945*, (Air) Vol II, Canberra: Australian War Memorial, 1957, p. 25.

⁸⁴ AWM52, 8/3/7, 26 Apr 43. The WD for this day discussed the air support provided for an attack: ‘Four Bostons came into the area and after circling the target five bombs were dropped in an indiscriminate manner followed by two ineffective straffing runs. The indication by smoke from the arty was good. Both the CO and IO left the area bitterly disappointed’.

⁸⁵ Bolger & Littlewood, *The Fiery Phoenix*, p. 246. On 27 March a stick of bombs from a Boston light bomber fell across a 2/7 Bn forward position, killing one man and wounding several others.

⁸⁶ AWM52, 8/2/17, 27 Mar 43.

⁸⁷ Keating, *The Right Man for the Right Job*, p. 124. The approach march by 2/6 Bn to attack Komiatum was 1200 yards but took eight hours. Admittedly this was at night.

⁸⁸ Dexter, *The New Guinea Offensives*, p. 31.

in the Wau-Salamaua area was arguably more challenging than the earlier jungle campaigns. Lack of observation of fall of shot, communications between the gun positions and the FOO or OPO, difficult of crest clearance and supply of ammunition were again constant challenges. Equally challenging was the continued lack of reliable maps.

In a sign that the lessons of the first jungle campaigns were beginning to be addressed, an artillery survey team was despatched in late February to begin work.⁸⁹ For the remainder of the campaign the teams struggled through the immensely difficult terrain, often being forced to employ methods that appeared in no training manual. The most rudimentary was 'compass and shouting'.⁹⁰ Andy Blackburn, one of the unit members, described this technique:

My companion, who was some distance ahead, would call out every so often. I would take a compass bearing in the direction from where his voice appeared to come thus recording the general trend of the route.⁹¹

Notwithstanding these problems, the survey units gradually created an accurate survey of the area. This enabled the artillery units to deliver targeted fire without the necessity for multiple ranging shots, nor endangering Allied forces. The fact that accurate maps were a prerequisite for the previous twelve months that Kanga Force had been operating in the area, and had not been provided, suggests that there were still problems at higher command levels in addressing the needs of those on the ground.⁹²

Exacerbating these issues was the near-impossible task of moving artillery pieces up and down the towering mountain ranges, as the infantry advanced. Following the large-scale battles of late January and early February, when the 25-pounders of 2/1st

⁸⁹ AWM54, 75/4/24, 'Artillery Operations in New Guinea January 1943 to Mid-February 1944' RAA New Guinea Force, p. 11, 'Acting on the lessons learnt at BUNA a Survey team was sent to the NADZAB area in Feb 1943'.

⁹⁰ Heather McRae, *Soldier Surveyors: A History of the 3 Australian Field Survey Company (AIF), 1940-1945*, Victoria: 3 Australian Field Survey Company, 1996, p. 78.

⁹¹ Ibid.

⁹² Both the above report – AWM54, 75/4/24 – and AWM54, 587/6/6 'Notes on Artillery Operations Salamaua 1943 by HQ RAA 1 Aust Corps', suggest that a proper Topographical Survey was necessary prior to the despatch of RAA Survey Teams. The RAA Survey Teams were frequently required to accomplish tasks beyond their capabilities and level of equipment. That they managed to accomplish them was more due to their determination and ability to improvise, rather than the thoroughness of the preparation before they were despatched.

Field Regiment were brought into action an hour after they were unloaded from DC3 transport aircraft at Wau aerodrome, it became evident that it would be impossible to move the guns further forward.⁹³ Notwithstanding this, in the time they were in action they contributed greatly to the defence of Wau. Of equal importance was the continuing accumulation of information on the employment of artillery in a tropical environment. After discussions with the Air Liaison Officer (ALO) and Wirraway pilots, a greatly simplified 'method of engaging targets with air co-op [was] evolved by Capt Wise and instructions issued to both troops'.⁹⁴ When the 1st Australian Mountain Battery (1st Aust Mtn Bty) arrived in late February these lessons were passed on and used to good effect throughout their deployment.

The continuing necessity for improvisation became evident to 1st Aust Mtn Bty within days of their arrival on 21 February. With the assistance of a party from 2/1st Fd Regt they were able to move their guns from Wau to Kaisenik on trolleys. As these became bogged in the mud the 'gunners very quickly adopted the native carrier method of carrying heavy loads – tie the load to poles and carry it on the shoulders'.⁹⁵ Occasionally the unit members were able to use the horses and mules of the Pack Transport Unit, but for the most part shouldering the loads became the normal – if exhausting – method of moving the guns from one position to another. Almost as difficult was re-supply of ammunition. A 17 Bde report stated that to move a single round of artillery ammunition from the aerodrome at Wau forward to the gun positions at Guadagasal took the labour of one carrier for a week.⁹⁶ This problem would not be solved during the campaign. Equally important, and similarly challenging, was the question of communications, both for the artillery and the infantry they were supporting.

⁹³ Haywood, *Six Years in Support*, p. 163: 'Collation of reports from parties penetrating far down the Markham Valley showed that movement of 25-pounders in the wake of the infantry would be a slow and strenuous operation'. See also Capt A. R. Ross (ed), *The Magazine of 17 Australian Infantry Brigade 1939-1944*, Melbourne: 1944, p. 52. A more recent account of the 2/1st Fd Regt Wau action by one of the unit's members appears in the November 2007 edition of *Wartime: Official Magazine of the Australian War Memorial*, Issue 40, Norrie Jones, 'Eyewitness: 1st Battery, 2/1st Field Regiment', pp. 40-42.

⁹⁴ AWM52, 4/2/1, 15 Feb 43. Appendix II contains the full procedure.

⁹⁵ Allan & Cutts, *As it seemed to us*, p. 84. The mountain guns could be broken down into smaller loads to make them easier to carry. At this stage the 'short' 25-pounder had not been introduced operationally.

⁹⁶ AWM52, 8/2/17, Kanga Force 'Report on Operations 1 Apr to 23 Apr 43', p. 7. This was a distance of approximately 20 miles.

Inadequate signal equipment, as discussed in the previous chapter continued to bedevil the units operating from Wau. Some members of the 1st Aust Mtn Bty were more fortunate in this regard as they had borrowed American assault line and power phones while at Buna.⁹⁷ They were the minority however, and, as in the earlier campaigns, ‘line communication [has] proved beyond doubt the safest method’.⁹⁸ As 7 Division signallers had found in 1942 ‘cable laying is extremely difficult and arduous in jungle areas’ and when combined with the ever-present threat of Japanese ambush made for an unenviable task.⁹⁹ Even when the cable could be laid forward there was no guarantee that amidst the tangled jungle and razorback ridges ‘a suitable OP to control [the] mortars’ could be found.¹⁰⁰ In similar circumstances to Milne Bay and the Beachheads, for an FOO to be certain that artillery or mortars would hit the target, he had to move dangerously close to the enemy.¹⁰¹ At times ‘sound ranging’, which had first been used in those earlier campaigns, was necessary.¹⁰² In at least one instance the only solution was for the FOO to crawl as far forward as possible and range the guns on his own position.¹⁰³ By this process of experimentation and the recording of what worked, and what did not, was a successful method of operation developed. These solutions appear to have been arrived at without external reference, as no mention of the reports written by the CRA or various Fd Regts after the first Papuan campaigns appears in the 17 Bde war diary.¹⁰⁴

The urgent need to increase the pool of knowledge on jungle warfare meant that throughout their deployment in the Wau-Salamaua area 17 Bde was collecting information, both on Japanese weapons and tactics and how best to improve their

⁹⁷ Ibid, Appx C, ‘Report by OC 1 Aust Mtn Bty on Operations to 23 Apr 43’, p. 1. Assault line was lightweight but strong cable for laying between the guns and the various observation posts. The power phone was also lightweight and portable, did not require an external power source and was not affected by humidity or rain. The report requested that both of these pieces of equipment be adopted for Australian forces. For the 7th and 9th Division campaigns beginning in September 1943, the US 536 handset or ‘Walkie-talkie’ was adopted and greatly assisted with communications between platoons and company HQ.

⁹⁸ Ibid.

⁹⁹ Ibid.

¹⁰⁰ AWM52, 8/3/7, 21 Apr 43.

¹⁰¹ AWM52, 8/3/5, 19 July 43. ‘FOOs operating within 50 yards of enemy forward posns’.

¹⁰² AWM52, 8/2/17, 8 May 43: ‘Arty FOO was unable to control fire by direct observation and was compelled to rely on sound from a fwd posn’.

¹⁰³ Allan & Cutts, *As it seemed to us*, p. 92.

¹⁰⁴ As 1st Aust Mtn Bty had served at the Beachheads they would, of course, have been able to apply the lessons they had learnt there to the new battlefield. The particular troop of 2/1st Fd Regt deployed to Wau had not seen action in that campaign. The troops that had were sent back to Port Moresby to rest and retrain.

own. Orders regularly appeared from Brigade HQ in which 'Coy Comds were asked for a report on their views on JAP TACTICS, eqpt, method used and lessons learned from Wau operations also any deficiencies in our eqpt'.¹⁰⁵ As with the Kokoda Campaign and Brigadier Potts' voluminous report, the most detailed report from 17 Bde appeared after they had returned to Australia.¹⁰⁶ Nevertheless, a regular series of reports and documents containing suggestions for improvements to methods, tactics, training and equipment appeared throughout the duration of their deployment.¹⁰⁷ In order to better evaluate and incorporate these reports into subsequent training, changes were occurring in the DMT and LHQ.¹⁰⁸

By the middle of 1943 17 Bde were nearing the end of their deployment. Whilst serving in the Wau-Salamaua area they had also contributed to the dissemination of jungle warfare learning by fostering in units of 15 and later 29 Brigades.¹⁰⁹ Throughout July and August this involvement increased as 17 Bde prepared to hand over responsibility completely and return to Australia.¹¹⁰ Nevertheless, the collection of information on the enemy and operations in jungle terrain continued. The lack of innovation by the Japanese with regard to their tactics in battle was noticed by the Australians and would later reappear in the expanded 17 Brigade Group report.¹¹¹ Whether or not the Axis' 'early victories lent a certain complacency' and resulted in the Japanese seeing little need to refine or improve their tactics is open to debate.¹¹² What appears beyond question, however is that their early defeats forced the Allies – including the Australian Army – to examine how and why they had occurred. Part of

¹⁰⁵ AWM52, 8/3/7, 25 Feb 43.

¹⁰⁶ AWM52, 8/2/17, 30 November 1943, 'Report on the Operations of the 17 Aust Inf Bde Group in the Mubo-Salamaua Area from 23 April to 24 Aug 1943'. The full report is 80 pages long and includes 14 appendices dealing with Allied and Japanese tactics and weapons, and problems encountered with comms, arty, logistics and casualty evacuation. It was distributed throughout 17 Bde and 6 Division, as well as to 1 and 2 Aust Corps, NGF and both LHQ and Adv LHQ.

¹⁰⁷ See for example, AWM54, 578/7/3, 'Kanga Force: Report on Wau-Mubo Ops Period 11 Jan 43 – 1 Mar 43' & AWM52, 8/2/17, 'Kanga Force: Report on Operations 1 Apr to 23 Apr 43'.

¹⁰⁸ These changes will be dealt with shortly.

¹⁰⁹ AWM52, 8/3/7, 9 Aug 43: 'A party of officers from 47 Bn under Major Leech attached to unit for experience'. See also DVA, AAWFA, Keith Ross, 2/6th Bn, Archive No. 0373, Transcript, time: 4.33.30.00. (When a new unit arrived in an operational theatre it was standard practice for the unit they were replacing to spend a period of time helping them become acclimatised. This could involve merely showing the new unit the positions of the enemy on a map. In the case of 17 Bde it was more detailed, and would see the AIF soldiers leading militia patrols, explaining ambush techniques and the best methods of siting defensive positions and laying booby traps.)

¹¹⁰ AWM52, 8/2/17, 6 Aug 43: 'Arrangements were made for observer parties from 15 Bn (29 Bde) to be attached to units of 17 Bde for experience of own and enemy tactics'.

¹¹¹ AWM52, 8/2/17, 2/7 Aust Inf Bn: 'Report on Ops – Bobdubi Area 29 Jul – 6 Aug 43' p. 1.

¹¹² Richard Overy, *Why The Allies Won*, London: Pimlico, 2006, p. 7.

this learning process was the in-depth study of operations in the tropics, a field that; as chapter one demonstrated, had been given little thought prior to 7 December 1941.

In late August and September 17 Brigade arrived in Australia, where, after a period of leave, they would reform and begin training for their next campaign. The lessons of January to August would not be forgotten, with Staff School courses run for units and formations of 3rd Division in late 1943 to mid-1944 drawn from that period.¹¹³ General Savige's instruction manual, *Tactical and Administrative Doctrine for Jungle Warfare*, compiled and issued to all units in 2 Corps serving under his command on Bougainville, was also largely based on the experiences of the Wau-Salamaua Campaign.¹¹⁴

For 17 Brigade the most important lesson to be taken from their operational experience in the Wau-Salamaua area – the centrality of effective patrolling – merely reinforced the lessons of the first Papuan Campaign. As the report stated:

Patrolling, particularly aggressive patrolling, is the key to successful jungle fighting. Although a commander can use air photos and maps to study the terrain and generally select his objectives, it is on the patrols that he must rely for accurate information...A high standard of training is required for patrolling the jungle.¹¹⁵

While this statement would not be revelatory to any of the AIF divisions – for whom patrolling in order to obtain information on the enemy and the terrain had been standard operating procedure in North Africa, Greece, Crete and Syria – lack of reliable maps and the inability of air photos to provide adequate detail in a sea of green foliage, meant that its importance could not be stressed too highly in jungle terrain.¹¹⁶ Notwithstanding other innovations during the course of the war, thorough

¹¹³ AWM254, 168 Pts 1 & 2. '15 Aust Inf Bde – Staff School Course 1. 29 Nov – 12 Dec 43'. As mentioned earlier, General Savige was the commander of 3rd Division. Notation in the front cover of Part 2 of this large file states that 'all these were included in the trg instn issued by HQ 2 Aust Corps in Bougainville Jan 45'.

¹¹⁴ Keating, *The Right Man for the Right Job*, p. 154. Much of *Tactical and Administrative Doctrine for Jungle Warfare* is clearly taken from the Jan to Aug 43 experiences, with one section, that on jungle patrolling, having the date 13 Oct 43. The less than voluminous amount of information on tank-inf cooperation in jungle is a reflection of the fact that armour was not used in the Wau-Salamaua Campaign. That section is based upon the experiences of 4th Aust Armd Bde in the Sattelberg-Wareo-Sio battles of October 43-Feb 44.

¹¹⁵ AWM52, 8/2/17, Appendix 14 'Own Tactics: Patrolling', p. 4.

¹¹⁶ As mentioned in earlier, constant aggressive patrolling had been crucial to the defenders of Tobruk. An inability to supply the garrison with regularly updated accurate aerial photographs meant that the intelligence gathered by 9th Division and 18 Brigade patrols was extremely valuable.

jungle warfare training – for all members of the combat arms – and aggressive patrolling by Australian forces would provide the cornerstone to effective operations in the jungles of the SWPA.

‘Training in Battle Conditions’: LHQ, Canungra and Beenleigh

With 17 Brigade the only AIF infantry brigade in action between February and August, a steady stream of visitors from Australia arrived to gather first-hand information on jungle and mountain warfare.¹¹⁷ Some of the more important, at least with regard to the future development of jungle warfare training and doctrine in Australia, were Lieutenant-Colonel McDonald and several teams of instructors from Canungra. As was discussed in the previous chapter, the standard of instruction – and therefore the standard of trainees – at Canungra in the early stages was not satisfactory.¹¹⁸ With the return to Australia of jungle warfare experienced officers and NCOs in early 1943, this gradually began to improve, although it was proving difficult to keep up with the rapid expansion in the size of Canungra.¹¹⁹

In order to maximise the distribution of jungle warfare information LHQ decided that the next most useful course of action was to provide a detailed outline of the syllabus from Canungra so that all units and formations in Australia could benefit. The March 1943 issue of the *Army Training Memorandum* therefore contained four pages outlining the type of training that occurred at Canungra, as well as a simplified breakdown of the training syllabus.¹²⁰ The necessity of increasing the number of units who had a basic understanding of the methods and tactics to be employed in jungle

¹¹⁷ Several Independent Companies were also in action. As they had not served in the Middle East or Mediterranean theatres their experiences fall outside the parameters of this thesis.

¹¹⁸ The standard of recruit arriving at Canungra had improved by mid-1943, but it would not be until early 1944 that they would be uniformly suitable. With the establishment of the Recruit Training Centre at Cowra, NSW in November 1943, recruit training was finally centralised. This would ensure that all personnel would arrive at their respective corps properly prepared. For more detailed information see AWM54, 937/1/2, p. 4.

¹¹⁹ Hamilton, ‘A History of Canungra’, p. 11. In December 1942 there were approximately 1,300 men in training. By April 1943 this had increased to 3,320. It would grow to over 6,000 by early 1944. Much of this increased demand came from other services and nations, with RAN and RAAF, US, British, Indian, Dutch and Philippino personnel all undergoing training from 1943-45. See AWM52, 35/5/65 for any month in 1944 to see lists of various nationalities training at Canungra. In fact so many US personnel would pass through Canungra that US specific cadre courses were instituted in 1944. The entire personnel on the course would be US and all weapons and equipment were US Army issue. Instructors would be a mix of Australian and US personnel.

¹²⁰ *Army Training Memorandum* No. 21, March 1943, ‘Training the reinforcement for jungle warfare’, pp. 12-16.

warfare, appears to have outweighed the fact that many units would not be able to replicate jungle conditions in their current training locations. To improve the quality and wider applicability of the information distributed by Adv LHQ and DMT via the *Army Training Memorandum*, ‘observers were appointed who were able to send back reports for inclusion in [ATM]’.¹²¹ In late 1943 an ‘Operational Report Section’ at LHQ was formed whose task was:

The collection and collation of reports on operations to ensure that the lessons learned [were] made available to commanders who might be faced with similar circumstances in the future.¹²²

Although it had not reached its apogee, the ability of the Army to provide considerably improved doctrinal and training material than even a year earlier was noticeable. These developments would also have an effect at Canungra and Beenleigh – the LHQ Tactical School.

By March 1943 some of the first trainees to have passed through Canungra had been assigned to units overseas, while others were sent to bolster the depleted 7th Division units on the Tableland. One reinforcement who joined the 2/6th Bn at Wau would comment that ‘his...trg at Canungra proved invaluable. The country there was identical to that round Mubo. The patrol tactics were the same’.¹²³ With positive feedback on Canungra graduates from the CO of an Independent Company in the Wau-Mubo area, Lt-Col McDonald took the opportunity to examine for himself the terrain and tactics that he and his staff were attempting to replicate in Queensland.¹²⁴ In mid-March he arrived at Wau where he viewed the Independent Companies and examined the 17 Brigade Training School that Brigadier Moten had established.¹²⁵ In

¹²¹ AWM54, 937/1/2, ‘Directorate of Military Training. Account of Activities, 1939-1945’, p. 12.

¹²² Ibid.

¹²³ Hay, *Nothing Over Us*, p. 326.

¹²⁴ AWM52, 35/5/65, 25 Apr 43, RO Part 1, Extract from Letter. The following is an extract from Major G Warfe OC 2/3 Aust Ind Coy: “The reinforcements you are sending are first class, and a credit to the 1 ACTB. Please pass my regards and thanks to the instructors responsible”. As discussed in chapter five, the JWTC (Canungra) consisted of two main elements: the Advanced Reinforcement Training Centre (Jungle Warfare) and the 1st Australian Commando Training Battalion (1 ACTB). Reinforcements for any unit that was to serve with the Australian Military Forces (AMF) in the SWPA had to complete the 28-day course at the Adv Reinf Trg Centre, while any reinforcements for the Independent Companies trained at 1st ACTB. The Ind Coys were also based at Canungra and supervised their own training, receiving new personnel from 1 ACTB.

¹²⁵ AWM52, 8/2/17, 15 Mar 43. This school was similar to those that 17 Bde had established on Ceylon and at Milne Bay. When units were withdrawn from frontline action, personnel would be sent to the School to work on their skills. Different cadre courses for ORs, NCOs and officers dealt with

April, Major T. T. Lunn – the commanding officer of the Adv Reinft Trg Centre (JW) at Canungra, led an observer tour of New Guinea visiting several battlefields and the NGF Trg Centre.¹²⁶ On this occasion he was unable to visit Wau but in mid-1943 he returned to do so. In May another group of instructors from Canungra flew to Wau and spent two weeks visiting the units in action in the area. As the tour leader would later record:

It was found that only after a visit to the Coys in contact with the enemy, were the real problems of Jungle Warfare fully appreciated...the period spent with a fwd Bn that has had 6 months jungle service, was of exceptional interest.¹²⁷

Upon their return to Canungra, the instructors were able to incorporate the ideas and problems they had observed in action into the syllabus and create more realistic training scenarios. As a consequence of these improvements in instruction, units receiving recruits were able to state that they had a 'high degree of physical fitness and weapon efficiency' and that their jungle skills were very good.¹²⁸

With the increasing number of units and formations that their Training Teams were required to visit, LHQ was similarly desirous of keeping their personnel up to date. To this end in April four members of the training team were sent as observers to Wau.¹²⁹ The commander of the LHQ Training Teams, Lt-Col Wolfenden, and his instructors also regularly visited Canungra, Adv LHQ and DMT to collect 'up to date' material.¹³⁰ They would then be attached – usually for a period of two to four weeks – to formations or Commands and run jungle warfare training exercises.¹³¹ The secondment of officers who had seen action in the first Papuan Campaigns added to the authenticity of the lectures and training they imparted, as the 19th Brigade in the Northern Territory would attest.¹³² In this manner the dissemination of current

topics such as map reading, patrolling and ambushing in jungle conditions. See AWM52, 8/3/7, 22-28 Feb 43 for more detailed information.

¹²⁶ AWM52, 35/5/65, 'Report on Observer Tour of New Guinea' 23 Apr 43. Lunn had been seconded from 2/7 Bn.

¹²⁷ Ibid, 'Report on Observer Trip by Capt A. T. Irwin – Aust Trg Centre (JW) Canungra'.

¹²⁸ Burns, *The Brown and Blue Diamond at War*, p. 163. The 2/27th Bn received 40 reinforcements in June and were impressed with the training they had undertaken at Canungra.

¹²⁹ AWM52, 1/2/1, Advanced Land Headquarters G Branch (Adv LHQ G Branch), Appx B, 'Resume of Training Activities', p.1.

¹³⁰ Ibid, p. 1. For Lt-Col Wolfenden visit to Canungra see AWM52, 35/5/65, 1 Feb 43.

¹³¹ How the training teams oversaw training was discussed in greater detail in the previous chapter, pp. 231-2.

¹³² In February 1943, Wolfenden and Capt Dickenson, who had been seconded from 2/14th Bn, spent several weeks in the Northern Territory. Here they lectured 19 Bde, 6th Division and conducted training exercises. See AWM52, 8/2/19, Feb WD and appx 4.

techniques and tactics was able to occur on a broader basis. In a further measure to ensure that the Training Teams were providing realistic information to all units, Wolfenden was sent to Wau in June. He would spend a month seconded as Second in Command of 2/6th Battalion, gaining much practical experience of jungle conditions.¹³³

The training of higher-level officers – clearly the most important level in attaining operational success – was improved in early 1943 with the establishment of the LHQ Tactical School at Beenleigh, Queensland.¹³⁴ As DMT recorded, the School was to ‘teach the tactical doctrine of fighting and teach the art of command’.¹³⁵ It had been intended that the Commandant of the School was also to supervise training at Canungra. With the massive and extremely rapid expansion of Canungra, this was deemed impossible. Once all the AIF divisions had returned to Australia, and it was clear that all future operations would be in the SWPA region, training at Beenleigh changed to meet these altered operational requirements. Specifically it was determined that although:

The policy adopted at the Tactical School was to teach war as such and its principles in ordinary circumstances, [it would] subsequently...examine and determine the differences of method which were necessary for fighting in tropical country.¹³⁶

This was a clear admission that, notwithstanding the views of some officers, there were clear differences between operating in the jungle and other theatres of war.¹³⁷ Close liaison between Canungra and Beenleigh would continue for the duration of the Second World War, ensuring a uniformity of instruction and a timely integration of new jungle warfare techniques and tactics into training syllabi. As at Canungra, jungle warfare experienced officers were seconded to Beenleigh on a regular basis to assist with training and to ensure that instruction was up to date and reflected the

¹³³ AWM52, 8/2/17, 14-16 June 43. Although it has proven impossible to categorically substantiate, the complaints about the accuracy and applicability of the training provided by Wolfenden and his teams in 1942 appear to have led to the decision to ensure that they gained operational experience in New Guinea. See chapter five, pages 215 and 233 for the complaints by 25th and 17th Brigade in September and October 1942.

¹³⁴ AWM52, 35/5/65, ‘Formation of LHQ Trg Centre (Jungle Warfare)’, 3 Nov 42, p. 2. Beenleigh is in the Gold Coast hinterland south of Brisbane. Prior to January 1943, the LHQ Regimental Officers School had been based in Narellan, NSW.

¹³⁵ AWM52, 937/1/2, p. 11.

¹³⁶ Ibid.

¹³⁷ This point will be discussed in greater detail shortly with regard to *MTP No.23 – Jungle Warfare* and again in chapter seven when the *Tropical Warfare* manuals of 1945 are examined.

reality of combat in Papua and New Guinea.¹³⁸ Officers of both the Junior and Senior Wings of the Tactical School would regularly visit Canungra ‘during their six weeks course’, enabling them to improve their tactical knowledge.¹³⁹ The effect of these improvements would soon be felt throughout the Australian Army.

‘A state of utter disrepair’: 16 Brigade and 7th Division on the Atherton Tablelands

During the first few months of 1943, as 17 Brigade was becoming accustomed to its new area of operations around Wau, the battle weary soldiers of 7th Division and 16 Brigade were completing their periods of leave before reforming on the Atherton Tablelands in March. As they returned, 2/14th Battalion was not alone in highlighting the fact that ‘the large incidence of malaria is seriously hampering the re-organization and training of the battalion’.¹⁴⁰ Relapses would continue to see thousands of men who had served in the first Papuan Campaign admitted to hospital over the course of 1943, many of them on multiple occasions.¹⁴¹ Notwithstanding these problems, as soon as men marched in to their camps in the area around Ravenshoe, Wondecla and Herberton, training began.¹⁴² All units appeared to follow the format recorded by 2/16th Battalion: route marches, weapons training, drill and PT.¹⁴³ The need to be extremely fit in order to survive the rigours of jungle warfare – which had been proven beyond doubt during Kokoda – was acknowledged in the first ‘Training Instruction’ issued by 16 Bde upon arrival at Ravenshoe.¹⁴⁴

Simultaneously, the controversy surrounding the selection of a single sub-machine gun for the Australian Army to employ in jungle warfare continued. In late October 1942, both 16th and 21st Brigades had provided positive reports on the new Owen gun,

¹³⁸ AWM52, 8/3/9, 26 Jun 43, ‘Table F Seconded Officers: Capt Hoad – Instructor LHQ Tactical School’.

¹³⁹ AWM52, 35/5/65, ‘Notes for the Commander in Chief’, May 43, p.3.

¹⁴⁰ AWM52, 8/3/14, 1 Apr 43. See also Johnston, *The Silent 7th*, p. 163. ‘The War Cabinet heard in March that more than 95 per cent of the 7th Division had been infected with malaria’.

¹⁴¹ An examination of any battalion war diary for the period January to July 1943 confirms this point. See for example AWM52, 8/3/27, 24 Feb 43 ‘Monthly Summary’ which lists the numbers of men who were evacuated during the previous month. Also AWM52, 8/3/9, 19 May, ‘Thirty one members evacuated sick with malaria as result of blood test’.

¹⁴² Most units would agree with the 2/16th Bn historian that the Atherton Tablelands ‘particularly the eastern side...[containing] a jungle without fevers and without foes [was] the ideal training ground for jungle warfare’. Uren, *A Thousand Men at War*, p. 187.

¹⁴³ AWM52, 8/3/16, Appendix to December 1942 WD, ‘Reinforcement Training Syllabus – Period 25 Jan 43 – 22 March 43’.

¹⁴⁴ AWM52, 8/2/16, 21 Feb 43, ‘16 Aust Inf Bde Training Instruction No.1’, p.1. (The 2/3rd Bn WD contains a complete copy of this 3p document, unlike the 16 Bde WD, which merely discusses it.)

specifically referring to its weight, the weight of its ammunition and the fact that it was very reliable in jungle conditions.¹⁴⁵ They both suggested that it replace the Thompson SMG.¹⁴⁶ In January 1943 the 2/10th Battalion would record that ‘the OWEN gun was stated by the tps to be the better and Bde [was] advised accordingly’.¹⁴⁷ This was not, however, the end of the matter, as many in higher authority in the military and in procurement had decided that the Austen SMG should be adopted by the Australian Army instead of the Owen.¹⁴⁸ Eventually both would be produced in large numbers, although the vast majority of AIF infantry units preferred and used the Owen.¹⁴⁹ These high-level discussions would, for the most part, not affect the soldiers at the frontline. What it did demonstrate was that the Australian Army was gradually beginning to realise that the new combat environment would not only require modified doctrine and training methods, but different weapons and equipment from the North African and Mediterranean campaigns.

As more men returned from leave, the length and complexity of training exercises increased. The training syllabus of the 2/16th Battalion was created after carefully consulting various battalion and brigade reports from the Kokoda and Beachhead Campaigns.¹⁵⁰ While the units were taking these initial steps, at brigade level and

¹⁴⁵ NAA, MP729/6, item: 26/401/748 ‘Sub Machine Guns New Guinea’. These two reports form part of a large – 80-page – folder, including reports from various battalions who had used the Owen in action. All reported favourably. The TSMG, on the other hand – if not kept scrupulously cleaned – had a tendency to jam in the muddy conditions of jungle warfare. It was also heavier, as was the weight of its .45 calibre ammunition, as compared to the 9mm Owen.

¹⁴⁶ Ibid. It appears that the GOC NGF General Mackay made the decision to forward approximately 300 Owen guns to Port Moresby for distribution to units who would assess them under combat conditions. One of the other documents in this file is a very strongly worded letter from Blamey stating that as the Australian Army held sufficient quantities of the TSMG they would continue to be issued until further notice. See Ibid, ‘Armament Policy in Relation to Sub-Machine Guns New Guinea Policy’, 12 Nov, in reply to C-in-C’s letter of 2 Nov 42.

¹⁴⁷ AWM52, 8/3/10, 24 Jan 43.

¹⁴⁸ The Austen was an Australian version of the British Sten 9mm SMG. It contained elements of the Sten combined with the German MP38/40 Schmeisser SMG. The Owen would pass all the testing, while the Austen would fail several. For more information on the recalcitrant behaviour of the Army see Ross, *Armed and Ready*, pp. 371-381 and Kevin Smith, *The Owen Gun Files: An Australian Wartime Controversy*, Sydney: Turton & Armstrong, 1994.

¹⁴⁹ NAA, MP729/6, item: 26/401/768, ‘Owen and Austen Data for C-in-C’. From the point of view of the Army and the Ministry of Munitions the overriding argument in favour of the Austen appeared to be that it was calculated to be slightly cheaper to produce. Its major drawbacks as far as the troops who would have to use it were concerned was its reliability and the fact that the magazine – as on the Sten gun – could not be loaded by hand, due to spring pressure, but required another tool to perform that task. In combat this was a major negative.

¹⁵⁰ AWM52, 8/3/16, Appendix to December 1942 WD, ‘Reinforcement Training Syllabus – Period 25 Jan 43-22 Mar 43’. Maj F. Sublet who was administering command at the time wrote this document. The first priority was to ensure the troops regained their fitness and stamina, before more tactically challenging exercises were initiated.

above planning was occurring in an attempt to provide a single, unified training program.¹⁵¹ The ultimate aim was to arrive at that ‘overarching doctrine’ that had been noticeably missing thus far with regard to Australian jungle warfare learning.

To this end a series of conferences attended by 2nd Aust Corps as well as 6th and 7th Division officers occurred. There were two main items under discussion, both of which would affect the manner in which the AIF trained and fought for the remainder of the war. The first of these conferences concerned the organisation and structure of the army and would not involve great input from the units themselves. High-level discussions had already seen the relevant decisions made. On 13 February 1943 LHQ notified all formations and units under command that:

It has been decided that, in view of the experience gained during the recent campaign in NEW GUINEA, to carry out certain re-organization in the composition of Infantry Formations. The main effect of the re-organization is to create three types of Divisions. A) Armoured Divisions B) Standard Infantry Divisions C) Jungle Infantry Divisions.¹⁵²

The first formations to undertake the changes would be 5th, 6th, 7th and 11th Divisions. As discussed earlier in this chapter, when they arrived home 9th Division would also become a ‘jungle infantry division’.¹⁵³ Only the jungle infantry divisions would require changes to their War Establishment. As Grey has identified, the ‘imperatives behind the changes were manpower, transport, and communications’.¹⁵⁴ The CGS, General Northcott stated that the new organisation was to be:

Flexible and capable of various groupings [and that] All units, sub-units, transport and equipment which are not essential for general operations in jungle conditions have been eliminated from the Div organization.¹⁵⁵

Although the higher-level decision making behind these changes is not especially pertinent to this thesis, the impact of those changes upon the officers and men who were to implement them is.¹⁵⁶

¹⁵¹ Exactly what occurred in the period until mid-March is difficult to determine, as the entry in the 7th Aust Div WD admits: ‘During the period 1 Jan to 11 Mar 43 no accurate details of occurrences affecting the div are available, but the following is based on the best information now available’.

¹⁵² AWM54, 721/2/11, ‘Organization Jungle Divisions’ Part 2 of 5. The above quote is taken from the file entitled ‘Re-Organization of Infantry Formations in the AMF’, p. 1.

¹⁵³ Ibid, p. 1. 3rd AMF Division would also change to a jungle division.

¹⁵⁴ Grey, *The Australian Army*, p. 149.

¹⁵⁵ AWM54, 721/2/11, p. 2.

¹⁵⁶ For a more detailed discussion of the changes necessary to become a ‘jungle division’ see Palazzo, ‘Organising for Jungle Warfare’, pp. 91-94.

For the combat arms, the biggest practical changes would occur in the infantry battalions and their primary supporting arm, the artillery. Two of the platoons in the HQ Company of an Infantry Battalion, Nos 2 (Anti-Aircraft) and 4 (Carrier) were no longer required.¹⁵⁷ A Divisional Carrier Company would be created and carriers allocated as needed. An MMG Platoon for each Bn would be created, equipped with four Vickers MMGs, and the mortar platoon would be increased from four to eight 3-inch mortars.¹⁵⁸ These changes would mean a reduction in personnel from the standard WE of 910 down to approximately 800.¹⁵⁹ Although not mentioned in the LHQ document, 2/14th Battalion recorded that the strength of their Pioneer Platoon doubled.¹⁶⁰ The comments by Sublet in December 1942, that, 'it is pointless training personnel as Carrier-drivers, vehicle drivers, AALMG', and that 'the people who count are the rifle men' had come to fruition.¹⁶¹ In jungle warfare every member of a battalion would go into battle expecting to fight as an infantryman.

More importantly, these changes were an attempt to solve two problems with one measure. The mountainous tropical terrain of the first Papuan Campaign had proven a great impediment to the movement of transport and thus reduced the amount of support available to the infantry units. As was highlighted in the previous chapter, due to their weight, infantry battalions had also reduced their own support weapons, and had ultimately paid the price when opposed by Japanese units who had a preponderance of LMGs, MMGs and the ubiquitous mountain guns.¹⁶² It was in an attempt to increase the self-sufficiency and firepower of the infantry battalions that the addition of a MMG Platoon and the increase in the number of 3-inch mortars occurred.

Never again, it was hoped, would there be repetition of the situation at Alola where the Australians could see a multitude of Japanese in the distance but had no weapons

¹⁵⁷ AWM54, 721/2/11, p. 4.

¹⁵⁸ A Tank-Attack Platoon would also be introduced, but in the majority of the bns would see little action.

¹⁵⁹ The removal of the Carrier pl in particular saved considerable numbers of personnel such as drivers and mechanics.

¹⁶⁰ Russell, *The Second Fourteenth Battalion*, p. 215. The comments on page 12 of this chapter regarding the amount of time spent by infantry units in 'construction' work in jungle conditions underscore the necessity for this change, official or not.

¹⁶¹ AWM52, 17 Dec 42. Sublet had made these recommendations in a letter to the commander of the 2/16th Battalion LOB personnel back in Port Moresby.

¹⁶² See chapter five, pages 158-61.

capable of hitting such a target.¹⁶³ In fact, by mid-1943, the firepower of an Australian infantry division was vastly greater than in previous years. As Ross has demonstrated, while the number of rifles in a jungle infantry division remained roughly the same – 11,000 – the increase in the number of automatic weapons and mortars was very substantial.¹⁶⁴ Even when ambushed an Australian unit would in future be able to bring to bear far greater firepower than its Japanese opponent. And, as technology improved, reductions in weight would allow even greater firepower to be carried by the same number of troops.¹⁶⁵ This overwhelming superiority was later commented upon by a Japanese officer, who stated that ‘we could not do much against their firepower’.¹⁶⁶ Although not as well resourced as the US Army, as they adapted to the terrain and climate of the SWPA, the Australian Army began to place greater reliance upon firepower to save lives. The final campaigns of 1945 would see the natural culmination of this trend.

For the artillery, the primary changes would be in the number of regiments assigned to each division, the introduction of the ‘short’ 25-pounder and a vast reduction in their motor transport establishment.¹⁶⁷ Field Regiments would drop to one per division, as it was believed that it would be too difficult to transport and supply all three.¹⁶⁸ Initially these changes appeared logical. As Palazzo has argued:

¹⁶³ See for example, Paull, *Retreat From Kokoda*, p. 154, ‘The Japanese raised a flag over Alola and celebrated their victory...from their positions higher up in the valley, the Australians saw it all...their resentment ran high. They almost wept at the recollection of the Vickers machine-guns which New Guinea Force had ordered them to leave at Port Moresby. Alola still lay within the range of a Vickers, but of no other weapon carried by the Australians’.

¹⁶⁴ Ross, *Armed and Ready*, p. 423. On this page Ross includes a detailed table comparing an Australian division’s firepower in 1942 to 1943. The increase is marked, especially with regard to SMGs, which went from less than 400 to more than 2,200. So too is the comparison to a Japanese division which, with their added transport and logistics problems, was actually less well equipped than it had been in 1941.

¹⁶⁵ For example over the course of 1943, both the 2 and 3-in mortars were reduced in weight, as was the weight of each individual 3-in mortar round, meaning that infantry battalions could carry more ammunition. See Ross, *Armed and Ready*, p. 423. See, also, Kuring, *Recoats to Cams*, p. 212 for a photo of members of the 2/6th Bn in 1945 employing the 2-inch light mortar.

¹⁶⁶ Major Horie Masao quoted in Peter D Williams & Naoko Nakagawa ‘The Japanese 18th Army in New Guinea’ in *Wartime: Official Magazine of the Australian War Memorial*, Issue No. 36, September 2006, p. 60.

¹⁶⁷ The development of the Australian designed ‘Short’ 25-pdr will be dealt with on pages 296-7.

¹⁶⁸ It is also arguable that the belief that artillery was too difficult to employ and too awkward to move in the tropics played a part in this decision. See, for example, the statement by the CO of 2/3rd Fd Regt in mid-1943 after the unit’s move to an operational theatre was cancelled: ‘Again the views of those who doubted the artillery’s role in jungle warfare prevailed’. Bishop, *The Thunder of the Guns*, p. 530.

Fewer vehicles also meant a lower requirement for maintenance personnel and reduced the amount of supplies the division needed, thereby lowering the strain on Australia's limited logistical support.¹⁶⁹

The fact that the changes may have been too drastic would only become evident when the 7th Division began to pursue the retreating Japanese across the plains of the Markham and Ramu Valleys from September 1943 onwards. The understanding of Brig Porter, which would later appear prescient, was also not realised at the time.¹⁷⁰ In some quarters, however, disquiet over the reduction in transport for infantry formations was raised prior to combat. One of the first of those to signal his doubts would be General Vasey – GOC 7th Division – who pointed out to LHQ several problems.¹⁷¹ The introduction of the almost universally disliked 'Carts Hand Jungle Special' would not adequately compensate for the removal of much of a unit's own transport.¹⁷²

These two-wheeled metal handcarts were first noticed being used by the Japanese during the Kokoda Campaign and appeared an effective solution to the problem of transport and movement of battalion's support weapons, ammunition and supplies in jungle conditions.¹⁷³ The infantry battalions of 7th and 9th Divisions would train with these carts prior to their deployment to New Guinea, but on the relatively dry tracks and roads of Australia, not on the tortuous mud-choked tracks they would face once in action. Reports written after the Beachheads Campaign had suggested that they

¹⁶⁹ Palazzo, *The Australian Army*, p. 184.

¹⁷⁰ AWM54, 923/1/6, 'Notes on recently expressed concepts of tactics' HQ 30 Aust Inf Bde, 11 Oct 1942, p. 2. In this report Porter had written that the Army tended to remember lessons from its most recent battles and make changes based upon those lessons. This did not allow for mature reflection nor proper planning for future scenarios or terrain. Porter included the comment that 'after the Owen Stanley incident, I expect we will enter the plains on foot, carrying a mountain battery or two'. (This report was discussed in the previous chapter.)

¹⁷¹ AWM54, 721/2/11, 'Re-organization of Inf Formations for Jungle Warfare', 15 Mar 43. Vasey's main point was that in combat it may be necessary to pare transport to a minimum due to the terrain, but that whilst training and moving around rear areas, infantry units would still need sufficient vehicles. See also Russell, *The Second Fourteenth Battalion*, p. 215: 'Lack of motor transport caused by "jungle scales" of transport hampered training. It must have been overlooked by higher authority that while a battalion might have to fight in country where transport could not be used, yet during training much time could be saved by using transport to move men and stores to and from suitable areas'.

¹⁷² AWM52, 905/20/2, 'Equipment for Jungle Warfare: Entrenching tool, light utility cart', p. 1. The fact that they had been designed to be towed by men on foot and not by Jeeps was also a significant drawback.

¹⁷³ AWM54, 577/7/35, 'Notes on 7th Division Operations Kokoda to Soputa by Major Parbury', p. 11.

would not prove useful in difficult terrain.¹⁷⁴ Nevertheless they would be issued and deployed with 7th and 9th Division. Soon after their initial use in September-October 1943, most units would discard them. A report written in December 1943 commented that the handcarts:

Are not liked as they are hard to push and jeeps can be used almost anywhere jungle handcarts can. Their only value seems to be in flat country in static or semi-static conditions for moving stores short distances within headquarters.¹⁷⁵

Although a few battalions commented favourably on them, the majority disliked them, and they would not be used during the final campaigns.¹⁷⁶

The second series of conferences was more directly related to tactics and training, although by the time the relevant manuals resulting from these conferences had been distributed en masse, 7th and 9th Divisions would have begun deploying to New Guinea. During the second week of February, 21st Brigade 'discussed the agenda paper of a conference to be held at HQ 7 Aust Div on 19 Feb on the subject of Jungle Warfare'.¹⁷⁷ Representatives of all battalions and brigades in the Division were ordered to attend the conferences.¹⁷⁸ Over the next five days various topics were discussed. The first concerned the compilation and eventual publication of a jungle warfare training pamphlet.¹⁷⁹ The next day saw discussion of the reorganisation required to bring the Division into line with the newly proposed War Establishment changes for 'jungle infantry divisions' as well as an examination of the 'equipment and training of the Div' for jungle warfare.¹⁸⁰ On 22 February, 'Direct Air Support' and the possibilities of it replacing artillery support in jungle conditions were

¹⁷⁴ Ibid, p.11. Maj Parbury had stated that over terrain that jeeps could not traverse the handcarts 'are of little use and could not accompany a bn on the move'. This advice was clearly not heeded.

¹⁷⁵ AWM54, 589/7/11, 'Report by Lt-Col A. G. Wilson on Tour as Observer in New Guinea from 26 Nov to 16 Dec 1943', p. 19. As they were issued to the infantry battalions – effectively to replace the motor transport that had been removed by the change to 'jungle division' WE, this can be regarded as a failure.

¹⁷⁶ Crooks, *The Footsoldiers*, p. 275.

¹⁷⁷ AWM52, 8/2/21, 17 Feb 43.

¹⁷⁸ Having fought under the command of 7th Division in the Papuan Campaigns, 16 Bde, 6th Division, was still attached and as such were required to attend. To this end the Brigade Commander and two of the three Bn COs attended. The majority of the representatives, however, were captains of the various infantry battalions of 7th Division. As the majority of 18 Bde did not return from Papua until Mid-March, none of this Bde attended these conferences.

¹⁷⁹ The first and last days of the conference concerned the manual that would become *MTP No. 23*. This will be discussed in greater detail shortly.

¹⁸⁰ AWM52, 1/5/20, 19 Feb 43. These changes were discussed above. The most important changes were the reduction in transport and the increase in the numbers of MMGs and 3-inch mortars on a battalions W/E.

considered.¹⁸¹ The final day of discussions concerned the '7 Aust Div pl and sec comds handbook', which would eventually be published as *Supplement to Military Training Pamphlet (Australia) No. 23 Jungle Warfare – Notes for Platoon and Section Leaders*.¹⁸² The conference decided that an outline of the pamphlet would be given to the brigades who would then forward their suggestions on its content back to 7th Division HQ.¹⁸³ Although those at the 7th Division conference could not know it at the time, decisions made at a higher level would eventually play a greater part in the content of those manuals.

The issues under discussion at this conference had their genesis at Advanced Land Headquarters [Adv LHQ] in Brisbane. As Adv LHQ stated:

Many reports have been coming in from NEW GUINEA and the information has been collated, passed to the appropriate people for their remarks, forwarded to DMT, MELBOURNE, and in due course will come out as complete publications or in the form of articles for inclusion in ATMs.¹⁸⁴

A draft version of a training pamphlet to be called 'Jungle Warfare' was foremost among these.¹⁸⁵ Advanced copies of this pamphlet would be sent to all formations and commands in Australia on 2 March 1943 with the covering note stating that 'contents will be studied and applied to training where applicable'.¹⁸⁶ Before full distribution could occur, however, unfavourable reaction to the contents would be received at Adv LHQ. Both Generals Vasey and Boase criticised numerous aspects of the pamphlet.¹⁸⁷ The statement by Boase that 'the publication gives evidence of being hastily prepared and inadequately edited' is hard to refute.¹⁸⁸ The pamphlet was an

¹⁸¹ Ibid, 22 Feb, 'Direct Air Support – Jungle Warfare', Appx D.

¹⁸² Ibid, 24 Feb 43. 6th Division would in June 1943 publish their own jungle warfare training manual. It would, at 82 pages, be considerably longer than *MTP No.23* but contained very similar material and suggestions. It will be dealt with shortly.

¹⁸³ Ibid, 'Notes on Div Conference 0900 Hrs 19 Feb 43', p. 2.

¹⁸⁴ AWM52, 1/2/1, Apr 43, p.1.

¹⁸⁵ A copy of the provisional pamphlet appears in the papers of Gen Sir Thomas Blamey. 3DRL/6643, Series 3, Wallet 19 of 160 Box 28, 1 of 2 'Jungle Warfare Training Pamphlet March 1943'.

¹⁸⁶ AWM54, 937/3/33, 'Military Training Pamphlet No. 23 Jungle Warfare Comments on draft by Maj-Gen Vasey'. One of the several documents in this file is entitled 'MT Pamphlet – Jungle Warfare – Advanced Copy'. This covering letter contains the full distribution list and has been signed on behalf of Maj-Gen Berryman the Deputy Chief of the General Staff.

¹⁸⁷ Ibid, 'Jungle Warfare Pamphlet' comments by Gen Vasey GOC 7 Aust Div, 13 Mar 43; and 'Subject: Military Training Pamphlet (Australia) No 23 Jungle Warfare', comments by Lt-Gen Boase, Comd First Aust Army, 19 Mar 43.

¹⁸⁸ Ibid, 'Comments by Lt-Gen Boase'. While normally grammatical errors would not be an overly important consideration in a training pamphlet, in this case as Boase argues 'the construction of

amalgam of numerous reports dating from at least December 1941 through to the close of the Beachheads Campaign.¹⁸⁹ There also appears to have been some confusion in the intended purpose of the pamphlet. As Vasey identified, although the first section stated that it was written ‘primarily for the company and the battalion commander’ it ranged widely over topics, some of which are the responsibility of a Divisional or Corps Commander, while others dealt with section and individual training.¹⁹⁰

Another criticism was that the pamphlet covered ground that had already been better dealt with by such manuals as *Infantry Training 1937*, *Infantry Minor Tactics 1941* and the two volumes of *Field Service Regulations*. What the manual should have done was to better enunciate ‘those matters which are peculiar to jungle warfare’.¹⁹¹ The haste in its preparation which led to these problems was, of course, directly attributable to the urgent need for direction on training and doctrine. All units and formations in Australia wanted to know how they should prepare their soldiers for combat in the SWPA. To meet this demand, LHQ and DMT (appear to have) moved precipitously. These criticisms would eventually see the pamphlet reissued, in an altered form. Not before, however, several pages taken directly from the provisional copy appeared in the latest issue of the *Army Training Memorandum*, No 21 for March 1943.¹⁹²

sentences is in some cases so faulty that they are unintelligible or convey an obviously incorrect meaning to the reader’.

¹⁸⁹ Ibid, p.1. Utilising a range of reports from Australian, British, Dutch and American experiences was a sensible course of action – especially as the pamphlet would be issued to US Army units, and copies of it were despatched to Allied armed forces including Britain. However in this case it had led to some confusion. Examples from various countries experiences against the Japanese were included but the whole lacked clarity. More importantly, as Boase identified, there were several critical omissions, specifically the employment of artillery and engineers in the jungle and air-ground co-operation. Although touched on, these areas required far more detailed examination.

¹⁹⁰ AWM, Allied Land Forces in the South-West Pacific Area, *Operations: Military Training Pamphlet (Australia) No. 23 – Part XX – Jungle Warfare (Provisional)*, p. 3. As Vasey commented, subjects such as ‘relief’ of formations in the section under man management and that on ‘strategic reserve’ are well outside the sphere of a company or battalion commander.

¹⁹¹ AWM54, 937/3/33, ‘Jungle Warfare Pamphlet’ comments by General Vasey, p. 1. This is a very similar criticism to those made of General Bennett’s training manual, discussed in chapter two. Specifically, that Bennett’s manual ranged widely, from section level to strategic, but did not adequately address the major differences that combat in the jungle presented and how those differences should be overcome.

¹⁹² *Army Training Memorandum* No. 21 March 1943, Part II Training: ‘Military Training Pamphlet (Australia) No 23 – Part XX – Jungle Warfare’. Pages 8-16 dealt with jungle warfare, the forthcoming pamphlet and Canungra.

In order to address the criticisms, the pamphlet was revised, although it is arguable that sections of it were still beyond the authority of a company or battalion commander. To more clearly delineate those areas that were the responsibility of company and battalion commanders, and those that were the purview of platoon and section commanders, the information in the pamphlet was divided into two. Soon after the complaints discussed above by Generals Boase and Vasey were received by the DMT, altered versions were printed. The preface would still state that:

This pamphlet endeavours to collect all the available information which has been gained from the experience of fighting under jungle conditions. In a pamphlet of this nature written primarily for Company and Battalion Commanders, it is neither possible nor desirable to deal specifically with any particular area of operations and is a general appreciation of the experience which has been gained from fighting in Malaya, Philippines, New Guinea and the Solomons.¹⁹³

Although improved, particularly with the addition of more information from the recently completed Papua operations, it still dealt in generalities, resembling to an extent a volume of *FSR*. Nevertheless, it did provide the most useful manual thus far created on many 'aspects of fighting under jungle conditions' and was superior to the brief chapters in *FSR* or *IT37*.¹⁹⁴ For the men on the ground, however, the second of the two pamphlets, dealing with infantry minor tactics and junglecraft would be the more readily applicable.

Of particular interest to those at the 7th Division conference was the discussion that focused around jungle warfare training at the unit and sub-unit level. The last day of the conference would see those present 'discuss and adopt [the] final draft of Pamphlet on Jungle Warfare, and methods of training for jungle warfare'.¹⁹⁵ The necessity for more relevant training manuals based upon recent experiences was highlighted by a 25 Bde exercise in March. The suggested training pamphlets to be examined by officers prior to the exercise included *Infantry Minor Tactics 1941*, Bennett's *ATM No. 10* and Colonel Brink's *Tactical Methods*.¹⁹⁶ While *IMT 41* contained much useful information for the infantry officer, its benefits, and those of the other two pamphlets, were restricted to more open theatres of warfare, or to

¹⁹³ Operations. *Military Training Pamphlet (Australia) No. 23 XX Jungle Warfare (Provisional)*, Melbourne, 1943, p. 5.

¹⁹⁴ Moreman, 'Jungle, Japanese and the Australian Army: learning the lessons of New Guinea', p. 7.

¹⁹⁵ AWM52, 8/2/25, 24 Feb 43. See also AWM52, 8/2/16, 19-24 Feb 43.

¹⁹⁶ AWM52, 8/2/25, 'Tactical Exercise with Troops – Company Ambush' p. 1.

countries like Malaya or Ceylon with a developed road network. Provisional copies of *MTP No. 23* would be distributed to units in May. However, as stated earlier, the final version of this training pamphlet occurred too late to be used by 7th or 9th Division in this training period. The pamphlet, *MTP No. 23 – Jungle Warfare – Notes for Platoon and Section Leaders*, would provide the basis of individual, section and platoon tactics and training throughout the Australian Army until superseded in late 1944.¹⁹⁷

The 44-page pamphlet or ‘Jungle Soldier’s Handbook’ as the introduction referred to it was ‘to be read with the existing textbooks and NOT to replace them’.¹⁹⁸ In an unambiguous response to what General Vasey described as ‘too much Hoodoo’ around the concept of ‘jungle warfare’, LHQ was insistent that ‘the principles laid down in our existing army publications...all apply in jungle warfare’.¹⁹⁹ Nevertheless, the manual admitted that those principles and practices would need to be adjusted to meet the ‘points and considerations peculiar to jungle operations’.²⁰⁰ To that end the pamphlet began by defining the nature of ‘tropical’ and ‘jungle’ country, and moved on to ‘Japanese characteristics’ and the importance of hygiene, before examining training.²⁰¹ As an adjunct to this manual, in early June LHQ distributed the 70-page handbook *Friendly Fruits and Vegetables*.²⁰² It contained descriptions and photos of many common tropical foodstuffs, in the hope that troops would be able to supplement their diet and, if they became lost in the jungle, would be able to survive.

MTP No. 23 – Notes for Platoon and Section Leaders progressed through chapters on individual, section and platoon training and tactics before finishing with a chapter on patrolling, which included a number of diagrams of section and platoon formations for various patrols in jungle, and many diagrams on how to set booby-traps. The patrol diagrams are markedly different to those that appear in *Infantry Minor Tactics* -

¹⁹⁷ The full title is as follows: Operations – Supplement to *Military Training Pamphlet (Australia) No. 23 – XX Jungle Warfare (Provisional) Notes for Platoon & Section Leaders*, Allied Land Forces in the South-West Pacific. In December 1944 and February 1945 two new manuals, expanded and updated versions of the 1943 pamphlets, would be introduced. They will be discussed in the following chapter.

¹⁹⁸ *MTP No. 23 – Jungle Warfare*, p. 6.

¹⁹⁹ AWM54, 937/3/33, ‘Jungle Warfare Pamphlet’ comments by Gen Vasey, p. 1. LHQ comments appear in the introduction to *MTP No. 23 – Jungle Warfare*, p. 6.

²⁰⁰ *MTP No. 23 – Jungle Warfare*, p. 6.

²⁰¹ *Ibid*, p.5.

²⁰² AWM52, 1/2/1, ‘Resume of Training Activities’, p. 1. *Friendly Fruits and Vegetables*, LHQ, Aust, 31st May 43.

Australia 1941, which was discussed in the previous chapter.²⁰³ No longer were two sections up and one back, with the platoon commander moving with the rear section. The more appropriate jungle formation of a two or three-man scout group forward, followed by the section commander with the LMG group and then the rest of the section in file behind, was clearly based upon combat experience of the first Papuan Campaign.²⁰⁴ In fact, the division of a section into ‘scout’, ‘Bren’ and ‘support’ groups appeared for the first time in *MTP No. 23* and would continue to form the basis of jungle patrols for the remainder of the war.²⁰⁵

Another change that appeared at this time was also clearly based upon the experiences of that campaign. According to Laffin, the 25 Brigade Commander, Brig Eather:

Had made it clear in training that as soon as contact with the enemy was made, the platoons were to be committed, without reserve...This meant, in army parlance, that there was no time for the young commanders to ‘make an appreciation of the situation’, as they had been trained to – especially those who had been to officers’ schools. Now, using their full force of thirty to forty men, they were expected to press forward vigorously as soon as they had made contact with the enemy.²⁰⁶

Although the 25th Brigade war diary is not quite as emphatic, it emphasised that reserves should be committed ‘without undue delay [to deny the enemy] the chance of regaining the initiative’.²⁰⁷ While this appears to directly contradict the modified patrol formation, which appeared in *MTP No. 23*, discussed above, it actually complemented it. Prior to contact a section or platoon would adopt the more cautious – and more appropriate – ‘one up, two back’ jungle formation, but once contact had occurred the section, platoon or even company commander should not order his force to go to ground and consolidate their position. Their preponderance in automatic weapons should be utilised and the Japanese position rapidly attacked. During the Kokoda Campaign in particular it had become accepted practice that the best way to overcome Japanese resistance was to attack as soon as a position was identified.

²⁰³ See chapter five, p. 197. See also chapter one for discussion of formations in the desert.

²⁰⁴ See *MTP No. 23 Notes for Platoon and Section Leaders*, Appx “C”, p. 32, ‘Leading Section moving along a jungle trail’ and ‘Leading Platoon Moving on a Jungle Trail’. The diagrams were discussed in the text and referred to regularly.

²⁰⁵ See, for example, *ATM No. 29*, 17 January 1944, pp. 4-6, ‘Notes from New Guinea’. (Arguably it still exists today with ‘scout’ and ‘gun’ groups forming the basis of Australian Army infantry sections in the 21st Century.)

²⁰⁶ Laffin, *Forever Forward*, pp. 116-7.

²⁰⁷ AWM52, 8/2/25, 1 July 43, ‘Bn Exercise with Troops No. 2’, p. 1.

Waiting for orders or support resulted in the position being rapidly reinforced. This meant that when an attack was launched the Australians suffered greater casualties than they would have if an attack had occurred more quickly. When the updated *Tropical Warfare* manuals were published in late 1944 and early 1945, these tactics were described, making it clear they were to be adopted.²⁰⁸

As Kuring has noted, the 1943 training period would therefore see the introduction of several new or refined tactical techniques to enable the Australian Army to operate more effectively in jungle warfare, including section and platoon immediate action and contact drills – most of them devised to deal with the Japanese tactics identified in the early campaigns.²⁰⁹ Although it had taken time – and many casualties – more appropriate jungle warfare doctrine and training was now appearing. Moreman's statement that 'a highly effective standardised tactical doctrine for jungle warfare was developed and pass[ed] on throughout the Australian Army', during 1943 is correct.²¹⁰ Modification would continue to occur until the end of the Pacific War, but to a large extent, the changes necessary to enable the Australian Army to successfully operate in jungle and tropical terrain had begun to standardise. Although Coates' overarching doctrine may not have existed yet, it was moving steadily closer.

The contemporaneous debate over whether or not the Australian Army needed to make some of the changes contained in *MTP No. 23*, in order to successfully operate in the jungle and defeat the Japanese is largely a matter of perspective and empathy. As this study has shown, to the soldiers at the frontline who were required to make the transition from North Africa to Papua, there were marked differences between the two theatres. They had lost comrades at Milne Bay, Eora Creek and Gona, some of who would have survived if jungle warfare appropriate training systems and doctrine had been in place. To them the need for change and adaptation was self-evident. For commanders such as Vasey or Boase, however, with their broad knowledge of military principles and doctrine as well as greater experience of warfare, many of the

²⁰⁸ *Tropical Warfare*, Pt II 'Notes for Junior Leaders' 1945, p. 28: 'Whatever course of action he (the section commander) decides on, it must be rapidly put into effect; any delay may result in the loss of the entire section...It is essential that the section should push forward and attempt to destroy the opposition, otherwise the advance of the whole column may be held up by a burst of fire from one isolated machine gun, or one shot from a sniper'.

²⁰⁹ Kuring, *Red Coats to Cams*, pp. 170-1.

²¹⁰ Moreman, 'Jungle, Japanese and the Australian Army', p. 10.

changes were seen as unnecessary.²¹¹ From the reduction in the number of artillery regiments and transport under the new 'jungle infantry division' establishment, to the views expressed in *MTP No. 23*, these were deemed a hasty overreaction to a string of defeats.²¹² The ambivalence over the necessity for systemic change is reflected in the comments by Vasey earlier.²¹³ It is also noticeable in the lack of clarity identified by Boase and Vasey in the DMT's draft version of *MTP No. 23*.²¹⁴ Ultimately, however, these higher-level discussions were beyond the purview of those who would be most affected by the changes, the soldiers of the combat arms. They simply hoped that the changes to training, weapons and equipment that occurred over the course of 1943 would allow them to operate in the jungle more effectively and to defeat their Japanese opponent.

A more immediate outcome of the aforementioned conferences was a concerted attempt to create a better unified training program across the Divisions, and in fact across all the AIF units training on the Atherton Tablelands.²¹⁵ To this end 6th Division began issuing training instructions on Jungle Warfare beginning in late March.²¹⁶ The first was similar to those being issued by 7th Division and stated that 'training for Jungle Warfare is additional to, and does NOT replace, the normal training'.²¹⁷ Three weeks later however, 6th Division altered its stance and admitted that the 'special features of Jungle Warfare...necessitate certain special training'.²¹⁸ Moreover it stated that:

Training in jungle warfare can only be effectively carried out in the jungle. Whilst the normal training can be carried out in the vicinity of unit camps, the adaptation of this training to the special features of the jungle requires regular training, and practice in bivouacing and living, in the jungle

²¹¹ Moremon, 'No 'Black Magic': Doctrine and Training for Jungle Warfare' clearly supports this stance. Palazzo, 'Organising for Jungle Warfare', appears to disagree.

²¹² The outcome of these changes will be discussed in greater detail in the following chapter.

²¹³ See page 283.

²¹⁴ See pp. 280-1.

²¹⁵ AWM52, 8/2/16, 17 April, 'Commanding Offices of 2/1, 2/2 and 2/3 Aust Inf Bns today inspected methods of training, throughout this Bde with view to getting new ideas and if possible to standardise methods of training'.

²¹⁶ AWM, PR84/370, Private Papers of Lt-General Sir F. H. Berryman, Series 3, Item 41, *1 Aust Corps Training Instructions*. This 200 plus page document contains 22 different training instructions, manuals and pamphlets, covering all aspects of jungle and amphibious warfare. They cover the period from early 1943 until early 1945.

²¹⁷ Ibid, 27 Mar 43, '6 Aust Div Training Instruction No. 1 – Jungle Warfare', p.1. (Emphasis in original.)

²¹⁸ Ibid, 14 Apr 43, '6 Aust Div Training Instruction No. 2 – Jungle Warfare Training, p.1.

itself...and, at least half of [the soldiers'] training [should] be carried out in the jungle.²¹⁹

Included in the training instruction were orders for all units to begin construction of 'jungle stalker ranges'. The instruction made it clear that 'ALL arms and services' under command would commence this type of training.²²⁰ These training instructions would culminate in *6 Aust Div Training Instruction No. 11 Jungle Warfare*, which was issued in July 1943.²²¹

This highly detailed training manual followed the same format as *MTP No. 23* and, as the front cover states, was 'issued provisionally within the Division in amplification of *MTP (Australia) No 23*'.²²² The chapter headings are virtually the same as *MTP No. 23*, but each was longer and contained more diagrams of patrol formations, defence and ambush positions. As discussed in the previous chapter, elements of this manual appear to have been taken from the suggestions put forward by two company commanders from 2/2nd Battalion who had fought on the Kokoda Track. In particular, the platoon diagrams and suggestions regarding the training of reinforcements in jungle warfare are revised versions of those that appear in rough draft in Fairbrother and Ferguson's notes.²²³

The purpose of the 6th Division manual was clearly set out from the beginning, stating that:

This instruction has been written for the sole purpose of consolidating in convenient form the experiences and opinions of Officers, NCO's and men who fought the Japanese in New Guinea, and of drawing from these experiences lessons which will help us in our future encounters with the enemy.²²⁴

Furthermore the instruction made clear that:

²¹⁹ Ibid, p.1. This 7-page instruction went into greater detail than the first one and listed the training that all the various arms of the Division should undertake.

²²⁰ Ibid.

²²¹ AWM, 355.423 J95, Printed by First Aust Army. This *Training Instruction* was dated 30 Jun 43 and distributed throughout 6th Division in July and August.

²²² Ibid, front cover.

²²³ AWM54, 937/3/7. See pages 2-3 and appendices A, B, C and D. (As 16 Bde was the only formation of 6th Division to have seen combat in Papua, it is understandable that information provided by battalions from the 16th would form the basis of this Training Instruction.)

²²⁴ 6 Aust Div Training Instruction No. 11 Jungle Warfare, page 1.

For the purposes of training, for operations, and for the battle drill of units, the tactical doctrines set out in this instruction will be adopted by all units of 6 Aust Div as standard.²²⁵

Elements of this training instruction would be incorporated into General Savage's *Tactical and Administrative Doctrine for Jungle Warfare*, which, as mentioned earlier, would be issued to Second Australian Corps in 1945.²²⁶ Both *MTP No. 23* and *Training Instruction No. 11* would be used by 6th Australian Division in their training until they were superseded by the *Tropical Warfare* training manuals issued in late 1944 and early 1945. Although it may appear that the publication of two training manuals approximately a month apart demonstrates that the army was still searching for a uniform approach to jungle warfare lesson learning, the contrary is actually true. The great similarities clearly evident in these manuals highlights the fact that an almost universally applicable training and doctrinal system for jungle operations had been realised. All units who had seen combat against the Japanese had taken remarkably similar lessons from those experiences, and distilled them down into very similar training manuals. This would allow DMT to disseminate more accurate training ideas to those units who had not yet fought in the SWPA.

Due to the many problems discussed earlier, jungle warfare training could not begin in earnest for 6th or 7th Division until late March.²²⁷ When it did, the familiar pattern of individual, section and platoon training, with the emphasis on hardening, 'bushcraft' – including 'living in bush or jungle' – and 'health' was followed.²²⁸ 16 Brigade followed a similar format, although with the inclusion of assault and obstacle courses.²²⁹ Another major change to the first jungle campaigns was the time devoted to education on tropical diseases. Troops had the importance of anti-malarial and

²²⁵ Ibid, page 1.

²²⁶ By that time, 6th Aust Division would be operating in the Aitape-Wewak Campaign and no longer under command of General Savage. See AWM54, 937/3/38 'Tactical and Administrative Doctrine Jungle Warfare 1945', p. 1 for a full list of the distribution of this manual to 2 Corps. Enough copies were issued to every officer and NCO in the Corps. Unlike the rest of the army who would use the *Tropical Warfare* manuals – which will be discussed in the following chapter – Savage ordered that his manual would 'be the basis for training and operations of units under' his command.

²²⁷ They included the slow trickle of men returning from leave, the dozens of repeat hospital admissions due to malaria and the need to create camps and training areas out of virgin bush using a minimum of hand tools.

²²⁸ AWM52, 8/2/21, 11 Mar 43, 'Conference Notes – Conference of COs on 11 Mar 43', Appx B. The Bde Comd, Brig Dougherty, held a conference with his Bn COs, with the main discussion topic being training.

²²⁹ AWM52, 8/2/16, 26 Mar 43 'Training Conference', p.1. 7th Division would not begin training on assault courses until April.

scrub typhus procedures drummed into them, with some units believing they spent as much time on those aspects of jungle warfare as on the tactical side.²³⁰ That in jungle warfare disease control measures were just as important as tactics was highlighted by the Assistant Director Medical Services (ADMS) of 7th Division, Colonel Kingsley-Norris who stated that when the division returned to Australia in early February, 95% of the formation had been hospitalised due to disease.²³¹

As the health, fitness and skill level of the troops improved, so the variety of training methods evolved in order to continue that improvement. Initially this involved units following the suggestions in *ATM No 21* of March 1943.²³² Soon more complex methods were developed. The construction of jungle assault or 'stalker' courses was one of the most useful.²³³ The 2/2nd Battalion created three of them, one each for a man using a rifle, SMG or Bren gun. The comment that the jungle assault course consisted of 'ingenious devices [which] were arranged to give the firer the impression of being in typical enemy infested jungle country', could equally describe the courses built by any AIF infantry unit on the Tableland.²³⁴ Varying between 200 and 400 yards long, they required a soldier to move along a jungle track, and 'kill' a series of targets and life-size dummies operated by pulley systems.²³⁵ Some would need to be engaged with small arms fire, others with bayonet or grenade.²³⁶ The aim was to develop the soldiers' powers of observation and, most importantly, increase his reaction time. Men who missed the silhouettes, or who took too long, were told they had been killed and had to repeat the course until their accuracy and speed were

²³⁰ Barter, *Far Above Battle*, p. 212.

²³¹ Kingsley-Norris, *No Memory For Pain*, p. 185. Laffin, *Forever Forward*, p. 113, describes an address given by the newly arrived RMO of the 2/31st Bn who stated that 'The medical service will play a big part in all future operations in the tropics...The whole of the 7th Division was wiped out, on paper, by sickness and battle casualties in the Owen Stanleys show'. For discussion of the lack of understanding of the threat posed by malaria see Walker, *The Island Campaigns*, pp.114-6 and Sweeny, *Malaria Frontline*, pp. 29-31.

²³² *ATM, No. 21*, Mar 43, pp. 12-16, 'Training the Reinforcement for Jungle Warfare', page 13, suggests that a man be blindfolded and, holding his Owen SMG, be placed in the centre of a circle of troops. They should remain silent and then one at a time make a noise such as breaking a twig or cough quietly. The man in the centre would have to instantly point and line his weapon on the person who made the noise. Over time this should become instinctive.

²³³ In various unit war diaries they are given different names, but the majority call them jungle assault courses, jungle range course and stalker courses. All were fundamentally the same.

²³⁴ AWM52, 8/3/2, 30 Apr 43. See also Wick, *Purple Over Green*, p. 248, All the courses 'were constructed to represent a section of a typical jungle track with life-size dummies'.

²³⁵ Serle, *The Second Twenty-Fourth Australian Infantry Battalion*, p. 244.

²³⁶ AWM52, 8/3/31, Appx F to April WD, 'Sketch of Proposed Assault Course No. 1 with Proposed Aiming Points'.

at acceptable standards.²³⁷ With jungle terrain meaning that contact frequently occurred at pointblank range, and with no time to take a carefully aimed shot with the weapon brought up to the shoulder, these type of ranges were crucial in improving the chances of survival for Australian soldiers in jungle warfare.²³⁸

By early May all units had constructed similar ranges. Most were based upon the units' experience during Kokoda or the Beachheads Campaigns, while others were collaborative and arrived at after consultation and exchange of ideas between battalions.²³⁹ The earliest of these type of ranges appear to have been constructed in January 1943, after visits by Australian personnel to the US 41st Division stationed at Rockhampton.²⁴⁰ Many troops noticed a difference between the training they were undertaking in 1943 and that undertaken during 1942:

This time the veterans of the Battalion approached jungle training much in the mood of specialists anxious to become perfectionists. To them this was no meaningless drill. To the uninitiated the use of camouflaged uniforms; the slow, noiseless infiltration through the jungle; the elaborate methods of keeping in touch and the lessons of living off the land seemed rather theatrical; but the veterans were able to appraise the value of this training, and, by their enthusiasm and leadership, inspire the newly-joined troops to apply themselves to the task in hand.²⁴¹

Once all units had attained an acceptable standard at the sub-unit level, exercises with other corps and at battalion and brigade level commenced. Here too, the different challenges posed by a tropical environment were foremost in commanders' minds. In June 18 Brigade recorded that, 'improvised crossing of water obstacles to be

²³⁷ AWM52, 8/3/27, 13 May 43, '2/27 Aust Inf Bn Scout Course'. This 4-page document goes into great detail of every stage of the 2/27th's jungle scout course. It lists what each target/dummy is and what action should be taken by the soldier as he moves through the course. Points were to be deducted at every target if it was not properly 'killed'.

²³⁸ AWM52, 8/3/16, 30 Apr 43 'Musketry Training'. This document lists the various types of practices that every member of the 2/16th Battalion had to undertake. Most involved 'firing from hip' at distances of 30 yards. See also, AWM52, 8/2/25, 22 Feb, Appx A 'Trg Instn No. 21', p. 2 'Field Firing: To be based on jungle encounters (firing from the hip etc) with all light automatic weapons'.

²³⁹ AWM52, 8/2/21, 17 Apr 43, [A party of officers] 'moved to HQ 25 Aust Inf Bde and inspected "individual battle practice course" of the 2/33 Aust Inf Bn'.

²⁴⁰ NAA, SP1008/1, item: 538/1/311 'Jungle Warfare – Construction of Rifle Range'. This report included a description of the range and followed a soldier through the course and described what actions he should take depending on the type of target or silhouette he encountered. The personnel who visited the US division were members of NSW L of C who reported their findings to HQ Second Aust Army. AIF war diaries for units based on the Atherton Tablelands contain no reference to this source of information. It is therefore open to speculation as to whether or not the US assault ranges had any influence upon the Australian jungle assault courses.

²⁴¹ Uren, *A Thousand Men at War*, p. 187.

practiced. Engr Pl to accompany Bde and give instn in use of assault boats'.²⁴² The vast numbers of rivers and streams, all of which could rise rapidly after torrential rain, would exacerbate the problems of movement. In jungle warfare, the importance of the engineers would be greater than ever.

'A soldier first': Engineers become jungle-minded

For the Engineers, just as for the infantry, operating in the jungle posed formidable challenges. Before solutions to these challenges could be found, however, there needed to be clarification of the tasks that engineers were expected to accomplish in tropical situations. Until more concrete direction was received, engineer units concentrated on improving their infantry skills in jungle conditions.²⁴³ Soon 6th Division would record that 'RAE 7 Aust Div [was] contacted re proposed role of engineers in Jungle operations'.²⁴⁴ One problem was that the reduced scales of transport – under the new 'jungle divisions' WE – would have a greater impact upon engineer units, who would not be able to use many of the pieces of mechanical equipment crucial to the construction of bridges, roads and culverts.²⁴⁵ Throughout April and May, RAE personnel of both 6th and 7th Division would attend a series of conferences in an attempt to find solutions. In June the G1 of 6th Division would ask HQ RAE 6th Division for information on 'enr Eqpt which would normally accompany Fd Coys on jungle operations', demonstrating that there was still much confusion about exactly how the engineers would operate in the jungle.²⁴⁶ In late July a letter from the CRE of 6th Division to the Engineer-in-Chief highlighted some of the issues:

The engineer problem in jungle warfare is very different to the problem in open type warfare and radical alterations to the engineer equipment carried by a jungle division are necessary to meet the changed conditions. In jungle warfare engineer units have to rely far more on their own local resources and in their capacity to improvise and make things.²⁴⁷

²⁴² AWM52, 8/2/18, 2-5 Jun 43.

²⁴³ AWM54, 937/3/20, 'RAE First Aust Army – CRE Lecture No. 21 – Jungle Fighting' [nd]. This 8-page document was created after a recent visit by LHQ Trg Teams who had demonstrated 'offensive and defensive patrols' and jungle fighting.

²⁴⁴ AWM52, 5/5/10, HQ RAE, 6th Division, 16 Apr 43.

²⁴⁵ AWM52, 5/5/11, HQ RAE 7th Division, 2 Jun 43. A conference on this day had as one of its main topics 'transport and labour problems'.

²⁴⁶ Ibid, 28 Apr 43.

²⁴⁷ AWM52, 5/5/10, 'Matters for representation to the E in C', 28 Jul 43.

A report written after 7th Division had crossed the Markham River and established the aerodrome at Nadzab in September 1943, would discuss these issues, particularly the reduced scales of vehicles and mechanical plant.²⁴⁸ While the shortage of mechanical equipment would not be as confounding a problem as it had been in the first Papuan Campaigns, it was still not resolved to the satisfaction of the engineers. Sheer hard work by hand, often aided by natives, pioneers and infantrymen, would be the norm. Many of the issues, particularly the inadequacy of transport on the new WE, would not be solved until the training period prior to the final campaigns in late 1944 and into 1945.²⁴⁹

Notwithstanding these problems, 1943 would see major changes in engineer training with the establishment of a centralised RAE training centre at Kapooka in Southern NSW.²⁵⁰ All personnel would undergo a sixteen-week training program that was divided into four separate month-long blocks. While the engineers had always followed the maxim that ‘a sapper must be a soldier first and an engineer second’, the nature of jungle warfare reinforced this.²⁵¹ The first four-week segment was therefore devoted to small arms and infantry minor tactics. Experienced Field Companies, who were already allotted to various units and formations’, would follow the same procedure. Although the exact role of engineers in jungle conditions had not been completely resolved, all knew that in forthcoming operations the first necessity would be to ‘produce trained sappers capable of acting as fighting troops’.²⁵² In May HQ RAE 6 Div would undertake a 17-day course to improve their ability to move, survive and fight in the jungle.²⁵³ Only upon completion would they move onto the more technical aspects of a sapper’s role.

²⁴⁸ AWM52, 5/5/11, Appx C5, ‘RAE Appendix E to 7 Aust Div Report on Operations July-September 1943’. See especially pp. 6-8 for discussion of ‘allotment of mech eqpt to fd coys’ and ‘adequacy of general items of engr eqpt and stores’.

²⁴⁹ Even in the final campaigns, very few units or formations would agree that they had enough transport or mechanical equipment. This was especially true of the 6th Division’s Aitape-Wewak Campaign, and when comparisons were made with the US Army, who appeared to have more than enough vehicles.

²⁵⁰ McNicoll, *Ubique*, p. 145. (Today the Australian Army Recruit Training Centre.) Engineering training in Western Command – WA – remained separate, due to the distances involved.

²⁵¹ *Ibid*, p. 146.

²⁵² AWM52, 5/5/10, 1 Jun 43, ‘Training Instructions to RAE Units 6 Aust Div RAE’, p.1.

²⁵³ *Ibid*, 5/5/10, 14 May 43, ‘Outline Training Programme to HQ RAE 6 Aust Div for period 15/5/43 to 31/5/43’.

2/6th Fd Coy would have each of its three platoons undertake a 'three day course in Infantry jungle tactics' with one of 25 Brigades three infantry battalions.²⁵⁴ Eventually HQ RAE of each division would construct their own jungle rifle ranges and assault courses so that the Fd Coys under their command could use them as regularly as they needed. Their training instructions were close replicas of infantry units, with exercises on 'jungle living', 'movement in jungle' and 'scouting'.²⁵⁵ This training period also saw infantry battalions improving their engineering skills. As part of their training syllabus 2/27th Bn listed that they needed to practice the following:

Crossing of water obstacles with all gear. Selection of pl localities. Field engineering as required for jungle warfare including the digging of weapon pits, erection of trip wires.²⁵⁶

At the same time as this was occurring, it was realised that the School of Mechanical Engineering, instead of producing officers ready to serve in the tropics, was operating on almost unchanged lines from the First World War. When appointed in May 1943 to command the School, Colonel McGowan discovered that:

The syllabus consisted of four weeks squad drill, six weeks digging trenches and erecting barbed wire fences as for the 1914-18 War, and two weeks to cover bridging and all other engineering subjects.²⁵⁷

This was changed almost instantly with the focus firmly upon preparing officers for the operational environment and the challenges they would soon be confronting. As McGowan stated:

I extended the course for an additional eight weeks to include instruction on booby traps and anti-personnel mines, water supply, roads, accommodation, bridge design, report writing, engineers in opposed landings, and concluded with engineer tactical exercises without troops for the final three weeks.²⁵⁸

These changes would ultimately result in more highly skilled engineers, better able to solve the myriad of problems that occurred regularly in the New Guinea and island campaigns. Arguably the most important lessons concerned improvisation in the field

²⁵⁴ AWM52, 5/13/6, 2/6 Fd Coy RAE, 31 May 43.

²⁵⁵ AWM52, 5/5/10, 1 Jun 43, 'Training Instructions to RAE Units 6 Aust Div RAE', pp. 1-2.

²⁵⁶ AWM52, 8/3/27, Appendices, A Coy 'Training Syllabus' 3 May – 8 May.

²⁵⁷ McNicoll, *Ubique*, p. 146. McGowan had been CO of the AIF Middle East School of Military Engineering located on the Suez Canal. As such he had experience of modern warfare and the requirements of successful military engineers.

²⁵⁸ *Ibid.* It can be argued that many of the changes that McGowan and the E-in-C introduced were as much about modernising training, as they were about preparing for operations in the tropics. Nevertheless, from mid-1943 onwards many of the changes that occurred to the syllabus reflected the necessity for engineering skills specifically related to jungle and tropical problems, such as bridge building, road making and laying of booby-traps, none of which were a substantial issue for the AIF in the ME.

when ‘companies were spread far and wide at their various activities’ and had to provide immediate solutions for the infantry, artillery and armoured formations they were supporting.²⁵⁹

‘Close co-operation with the infantry’: Artillery apply the lessons of Papua

At the same time as the engineers were beginning to tackle the difficulties posed by the new operational theatre, so too was another corps, the artillery. For many artillery regiments, 1943-44 would be a frustrating period. As the army struggled to develop operating procedures so that the artillery could be effectively utilised, many units believed they would be sidelined for the remainder of the war.²⁶⁰ Upon their return to Australia, the artillery regiments of 9th Division also noticed that:

There still persisted in Australia among high-ranking officers a senior school of thought that insisted that NG had taught that arty was unsuitable for extensive use in a jungle division.²⁶¹

When the number of artillery regiments allocated to a Division was reduced from three to one – in line with the ‘jungle infantry division’ changes – this belief only increased.²⁶² It would take another campaign, but for the final campaigns in 1944-45 these reductions would be reversed and the 6th, 7th and 9th Divisions went into battle supported by three regiments each.²⁶³ Before then the artillery, as with all the combat arms, would attempt to determine what changes must be made to enable their effective operation in the jungle.

To assist with this process a detailed report was released on 24 February 1943 by LHQ, which summarised the recently completed campaigns and discussed solutions to the most commonly identified problems. In line with the other combat arms, the first point the report made was that ‘training for jungle warfare is additional to, and

²⁵⁹ J. A. Anderson & G Jackett, *Mud and Sand: 2/3 Pioneer Bn at War*, Sutherland, NSW: 2/3 Pioneer Battalion Association, 1994, p. 132.

²⁶⁰ See, for example, Henry, *The Story of the 2/4th Field Regiment*, p. 196: ‘At one time it appeared that the use of arty in jungle warfare would be impracticable...this caused many to seek transfers to other army units’.

²⁶¹ David Goodhart, *The History of the 2/7 Australian Field Regiment*, Adelaide: Rigby Ltd, 1952, p. 260.

²⁶² See Horner, *The Gunners*, p. 356, for more detailed discussion on the alterations to HQ RAA and the role of the CRA under the new divisional structure.

²⁶³ These campaigns will be discussed in chapter seven.

not in place of, normal artillery training'.²⁶⁴ Nevertheless, the report did suggest that even an officer with a high standard of gunnery ability would find jungle conditions extremely challenging. Covering all relevant topics, from shell and splinter ranging, through observation and communications, the report made it clear that one of the prerequisites for effectively operating in the jungle was to train in appropriate conditions. Regiments needed to ensure that 'guns should be manhandled over all conditions of country', that 'local protection of OPs and gun areas' by the unit itself occurred and that 'shoots should be conducted in areas approximating to jungle'.²⁶⁵ In response to this all artillery regiments would – like the engineers – be practising infantry minor tactics and working more closely with infantry units than previously.

The training programmes instituted by the various artillery regiments to address the points in the LHQ report closely resembled those for the infantry units. Improving physical fitness with regular sessions of 'PT, route marches and obstacle courses' were first on the agenda for the 2/3rd Field Regiment.²⁶⁶ This was closely followed by overnight and multi-day exercises in which 'perimeter defence' and 'jungle craft' were incorporated.²⁶⁷ The necessity for protection of gun positions would continue to be important in jungle warfare and was highlighted in reports being received from the Wau-Salamaua Campaign.²⁶⁸ Once the reduction in transport and gun limbers under the new WE was implemented, units began practising moving their artillery cross-country by hand. A party from 2/3rd Field Regiment would take a week to drag one of their 25-pdrs almost 5 kilometres, having to utilise block and tackle, cut a path through virgin scrub with axes, and build numerous small bridges to ford creeks.²⁶⁹ Although the report on this exercise claims that much valuable information was learnt, the regimental history is less complimentary.²⁷⁰ Nonetheless, for those units who had yet to see action in Papua, this training period would provide valuable insights into the difficulties they would eventually face.

²⁶⁴ AWM54, 75/4/18, 'Artillery in Jungle Warfare – Notes compiled from reports, from Pacific War Zone – 1943, p. 1. This report appears in numerous locations at the AWM and NAA archives under various titles. All (seem to) contain exactly the same 8-page report.

²⁶⁵ Ibid, p. 7.

²⁶⁶ AWM52, 4/2/3, 23 Jun 43, Appx G 'Training Instruction No. 2', p.1.

²⁶⁷ Ibid, p.1.

²⁶⁸ AWM52, 75/4/24, Appx B 'Local Protection Gun Positions', p. 32.

²⁶⁹ AWM52, 4/2/3, 3 Apr 43, 'Jungle Training'.

²⁷⁰ Bishop, *The Thunder of the Guns*, p. 523, 'Some of those who took part regarded [the exercise] as sheer bastardry'.

It was in a further attempt to address the challenges of providing artillery support in mountainous and tropical terrain, that the short 25-pounder was created. The initial jungle campaigns had clearly demonstrated the need for a lighter and more portable artillery piece than the standard 25-pdr.²⁷¹ The Director of Artillery therefore suggested that 'the 25-pounder should be redesigned by shortening the barrel and recuperator and by making the trail lighter'.²⁷² By early 1943 the first of these was being demonstrated to artillery units. The 2/4th Field Regiment would make history in September 1943 when they would be parachuted into action with two of their short 25-pdrs.²⁷³ In under an hour they would have one of them assembled and ready to fire. In time, most Fd Regts would contain a battery of the 'shorts' and two batteries of the standard guns.

The majority of units who had to use them in action – especially those regiments who had used the standard Mk II 25-pdr in action in the Middle East – were unimpressed. The 2/3rd Field Regiment referred to their shorts as 'little horrors'.²⁷⁴ The range of the short was considerably less than the standard gun, accuracy was not as good, it was more difficult to tow due to the modified trail, and the removal of the gun-shield – to save weight – was also a big drawback to the gun-crew.²⁷⁵ Even the circumspect official history admits that the short 25-pdr 'caused a heavy blast effect on the crews, who, in consequence, sometimes suffered from severe earache and temporary deafness, as well as occasional nose-bleeding'.²⁷⁶ It was, however, considerably lighter, could be broken down into transportable parts very rapidly, airlifted or delivered by parachute and loaded onto a jeep.²⁷⁷ Another regimental history probably gave a more balanced appraisal of the modified gun when it stated that 'it

²⁷¹ Horner, *The Gunners*, p. 355. As Horner mentions, the formation of the 1st Mtn Bty in July 1942 – with pack howitzer – highlighted the urgent need for such a weapon.

²⁷² D. P. Mellor, *The Role of Science and Industry: Australia in the War of 1939-1945*, (Civil), vol v, Canberra: Australian War Memorial, 1958, p. 238.

²⁷³ AWM52, 4/2/4, 4 Sep 43.

²⁷⁴ Bishop, *The Thunder of the Guns*, p. 545. See also Warby, *The 25-pounders*, p.302, which states that it was only after they had handed back their shorts and replaced them with the standard 25-pdr Mk II that 'they were able to view them with anything but deep loathing'.

²⁷⁵ The standard 25-pdr weighed 1,800 kgs, with the short being 500 kgs less. It could also be disassembled in under two minutes. These two features were the main aim of the modification, but the reduction in weight meant that on firing the lighter gun would recoil much more severely, throwing itself off line and necessitating realignment after each shot. The shortened barrel meant that the range was also approximately 2,600 metres less than the original gun.

²⁷⁶ Mellor, *The Role of Science and Industry*, p. 239.

²⁷⁷ Ross, *Armed and Ready*, p. 399. The British Army was sufficiently impressed with the short that they produced more than 400 of them for use in Burma, whilst Australia built fewer than 150.

appeared to us that the Short was an excellent jungle adjunct to the original 25-pdr, but not a substitute for it'.²⁷⁸ Being used in action approximately a year after it was first suggested is a demonstration that in some areas the army was rapid in its ability to respond to the demands of the new operational theatre of the SWPA.

In another sign that the artillery regiments were anticipating the problems of moving their 25-pdrs around the jungles and mountains of the tropics, several of them undertook training with 4.2 inch mortars. Although lacking the range of either the standard Mk II or short 25-pdr, these British weapons outranged both the 2 and 3-inch mortars of the infantry battalions. More importantly, for jungle warfare they were portable and 'could be man-packed into difficult areas'.²⁷⁹ 2/1st Field Regiment would train with them in 1943 and determined that 'there is a possibility that Mortar's [sic] may be able to undertake Arty roles in rugged country'.²⁸⁰ When the regiment eventually saw action during the Aitape-Wewak Campaign, members of one Troop from the 2/1st provided support with their mortars for 17 Bde as they moved inland through the mountains of the Torricelli Ranges.²⁸¹

While modifications to weapons were occurring, and new weapons were experimented with, the Fd Regts continued their training, with much time devoted to working with infantry units. To improve the level of understanding and knowledge between infantry and artillery, officers of each corps were seconded to either an infantry battalion or an artillery regiment.²⁸² For several training exercises a field regiment would be tasked to support a single battalion. On other occasions, as infantry and artillery attempted to adjust to the change necessitated by 'jungle division' WE, one battery would work with a brigade. In mid-June 1943 the belief that there was still some way to go before everyone was satisfied with the standard of doctrine was emphasised after an 'exercise disclosed the need for a clear conception of the tactical employment of arty in the jungle'.²⁸³ By the time the 7th and 9th

²⁷⁸ Goodhart, *The History of the 2/7 Australian Field Regiment*, p. 260.

²⁷⁹ Horner, *The Gunners*, p. 397.

²⁸⁰ AWM52, 4/2/1, 3 Aug, 'Report on Mortar – Arty Course'.

²⁸¹ Haywood, *Six Years in Support*, pp. 187-190. Their mortars were parachuted into them, assembled and ready for action very rapidly. See also AWM52, 4/2/1, WD for Jan, Feb and Mar 45.

²⁸² AWM52, 8/3/14, 20 Jun 43, 'Lieut R. J. McFarlen returned to 2/4 Fd Regt, accompanied by Lieut A. L. Sargent who left to undergo one weeks training with the Artillery Regiment'.

²⁸³ AWM52, 4/2/4, 15 June. 2/4th Fd Regt had been working with 25 Bde.

Division embarked for Port Moresby in August and September, the majority of these uncertainties would be close to resolution.

The final weeks training in Port Moresby would allow the field regiments to hone their skills by practicing tasks such as splinter and sound ranging, and to demonstrate the use of delayed action fuzes to infantry battalion commanders.²⁸⁴ The lack of transport and vehicles for moving the artillery – although identified in the 1943 training period – would, as predicted, cause much heartache in combat. For example, once they arrived at Finschhafen, the 2/6th Field Regiment would have to ‘acquire’ caterpillar tractors to move their guns out of the knee-deep mud.²⁸⁵ Nevertheless, the Ramu-Markham and Lae-Finschhafen campaigns would see many of the lessons of this training period come to fruition. Most notable was the much closer coordination of infantry, artillery and engineering units, which was required in jungle warfare as FOOs moved up with the foremost infantry companies, and engineers assisted the artillery Troops in moving their guns forward.²⁸⁶

‘Tanks should not operate alone’: Armoured Corps modifications

In the months following the Beachhead Campaign, the future use of tanks in jungle conditions was still under review. The assertions made after the fighting at Milne Bay, that ‘mechanized units will have little or no combat value in the jungle itself’ and that they would be easily destroyed on tracks and roads were only partially refuted with the Beachheads experience.²⁸⁷ Later reports agreed that, while they were essential in overcoming Japanese resistance at Cape Endaiadere-Giropa Point, they were completely road-bound at Sanananda and as a consequence easily picked off by Japanese anti-tank guns.²⁸⁸ The one thing that all reports agreed upon was that if tanks were to be used in jungle warfare, the M3 Light tank should not be the tank

²⁸⁴ AWM52, 4/2/4, 22-24 August 43.

²⁸⁵ Warby, *The 25 Pounders*, p. 338. These had to be borrowed from the RAE who had too few tractors themselves.

²⁸⁶ AWM52, 4/2/4, Sep and Oct 43 War Diary entries. See also Henry, *The Story of the 2/4th Field Regiment*, pp. 217-223 and Horner, *The Gunners*, p. 371.

²⁸⁷ AWM54, 579/6/5, ‘Operation Milne Bay 24/8/42 to 8/9/42 – Lessons from Operations’, p. 15. These comments appear in the conclusion by Brig Field, CO 7 Aust Inf Bde.

²⁸⁸ See AWM54, 581/7/31 Part 2 of 2, ‘Report on Operations, 18th Infantry Brigade’ Appx A ‘Notes on Tank and Inf Cooperation in Cape Endaiadere-Giropa Point and Sanananda Area Ops, pp.11-2 and AWM54, 577/7/29, Part 1, ‘Report on Operations in New Guinea – Notes on Operations Owen Stanleys – Buna Area, Serial I Operations using M3 Light Tanks in New Guinea’, pp. 3-5.

chosen.²⁸⁹ Its many deficiencies – as an infantry tank – were listed in both the main reports to appear in early 1943.²⁹⁰ Fortuitously, the most appropriate tank for jungle warfare was already available in Australia. The first Matilda Infantry Tanks had been received by the Armoured Fighting Vehicle School at Puckapunyal in October 1942, to teach infantry-armour cooperation.²⁹¹ As Handel states, the fighting at the Beachheads had proven that:

A heavier tank, with thick armour, suitable for low-speed work and able to crash through jungle, was the type required for operations in the South-West Pacific.²⁹²

The Matilda admirably met those criteria and for the remainder of the war would be the only tank used by the Australian Armoured Corps in combat.²⁹³

Another change that came about in early 1943 was the realisation that it would be next to impossible to employ armour in large formations in the SWPA. As Hopkins noted, this:

[r]esulted in the formation of the 4th Armoured Brigade [which] became in part an armoured pool from which units and even sub-units could be provided to form the armoured components of amphibious task forces... Additionally it exercised an important trg function and provided policy direction [and] undertook development and trg in connection with various types of specialised equipment.²⁹⁴

Throughout the rest of the war, various Armoured Regiments would be assigned to support infantry brigades or divisions as required. These units would find themselves operating in a similar manner to the artillery regiments, with squadrons and frequently three-tank troops working independently.

²⁸⁹ To this end an order for 142 more of them was cancelled in Sep 43, one can only presume because the lessons of the Beachhead battles had been accepted. See NAA, 729/6, item: 51/403/350, 'Review of Tank Situation', Sep 43.

²⁹⁰ See pp. 240-1 of the previous chapter for a discussion of the points raised by 2/6th Aust Armd Regt.

²⁹¹ Handel, *Dust, Sand and Jungle*, p. 63. The Matilda was regarded as virtually obsolete for combat in Middle East and European theatres, being undergunned and too slow. The British were therefore happy to part with them.

²⁹² Ibid, pp.63-4. The fact that it had a diesel and not a petrol engine was also a plus, reducing the fire risk if the tank was hit by anti-tank gun fire or detonated a mine.

²⁹³ Units in Australia would continue to train with a variety of tanks included the aforementioned M3 Light Tank and the M3 Medium Tank, the Grant. Various modified tanks – such as bridge-layers and flails would be used in the later campaigns. In 1944 both the British Churchill and American Sherman would be evaluated, but neither would see action with Australian forces.

²⁹⁴ Hopkins, *Australian Armour*, pp.125-6.

As it was becoming clear that the future role of the tank in the islands would involve even closer cooperation with the infantry and other corps, mid-1943 saw training along those lines expand. On 13 June, 2/9th Australian Armoured Regiment received a visit from a LHQ Jungle Warfare Training Team who demonstrated infantry tactics.²⁹⁵ Over the next month the unit would use these lessons – along with the 4 Aust Armd Bde Trg Inst No 3, which dealt with the use of the Matilda in the jungle – in training exercises with various infantry units.²⁹⁶ It would be late 1943, however, before this training resulted in the publication of appropriate training materials.

After Colonel Marshall returned with his unit, the 2/8th Armd Regt, from Papua, he was appointed to the Army Tactical School at Beenleigh ‘where he continued his most valuable work of setting AFV doctrine down on paper’.²⁹⁷ This work would eventually result in the publication of a manual dealing with ‘the combination of tanks and infantry in tropical warfare’.²⁹⁸ Throughout July all the brigades of 7th Division would undertake training exercises in infantry-armour cooperation. For 18 Brigade initial demonstrations were attended by officers before ‘one troop M3 medium tanks from C Sqn 2/9 Aust Armd Regt [was] att to each battalion 7-11 Jul for tng and demonstration’.²⁹⁹ Ironically, 7th Division would not operate with tanks in the forthcoming Lae-Ramu/Markham Campaign. It was the 9th Division in its assault upon the heights of Sattelberg, which would see the 1943 training with armour put into practice.³⁰⁰

‘Tough and Sweaty Training’: 9th Division experience the new paradigm

Soon after the 9th Division arrived home from the Middle East they began to concentrate upon preparations for their next operational role. On 14 April General Morshead would release 2 Aust Corps Training Directive No.1. It stated that all formations under command – including 9th Division – would ensure that:

²⁹⁵ AWM52, 3/1/15, 2/9 Aust Armd Regt WD, 12 Jun 43.

²⁹⁶ AWM52, 3/1/15, ‘Training Instruction No. 3’, 5 Jun 43.

²⁹⁷ Hopkins, *Australian Armour*, p. 128.

²⁹⁸ Ibid.

²⁹⁹ AWM52, 8/2/18, 1-11 Jul 43. See also AWM52, 8/3/33, 1 July 43.

³⁰⁰ The infantry-armour training in Australia was valuable, but it is arguable that the intensive four day training period undertaken in early November by the 26th Inf Bde and ‘C’ Squadron, 4th Armd Bde was of greater importance, both in the capture of Sattelberg, and in the development of inf-tank tactics in jungle terrain. This will be dealt with in the following chapter.

Training will be kept on a broad basis. By this means, formations will be well fitted to undertake operations in any type of country. At the same time, all formations will be trained to fit themselves for jungle warfare, and in addition selected formations, when detailed, will be trained for combined operations.³⁰¹

To meet this directive, within weeks of their arrival training cadres from 6th and 7th Divisions were being despatched to 9th Division units, with similar sized detachments from the 9th being fostered in to train with the jungle experienced units.³⁰² On 21 April the GOC of 9th Division held a 'conference of Bde Comds, COs of Div Tps on reorganisation of div and training for jungle conditions'.³⁰³ Over the next two weeks numerous training directives and instructions were issued by HQ 9th Division, the most detailed of which were based upon the 18 Brigade Buna and Sanananda operations and 21 Brigade's experiences on the Kokoda Track.³⁰⁴ A training HQ to collate information and provide guidance across the division was established, remaining in operation until mid-July.³⁰⁵

Although they did not know it yet, the division would have approximately two months to train for jungle warfare.³⁰⁶ In July, training for amphibious operations would commence at Trinity Beach, north of Cairns.³⁰⁷ Before then, the soldiers of the 9th Division, like those of 6th and 7th Divisions before them, would have to adjust their tactics and training to the new environment. And, like the 6th and 7th, they would come to intensely dislike the 'rotten jungle, full of leeches, big leeches, and these big - these vines with big leaves, and if they hit you they stick to you and they sting

³⁰¹ AWM52, 1/5/20, 9 Australian Division General Staff Branch (9 Aust Div GS Branch), 18 Apr 43, '2 Aust Corps Training Directive No. 1' p. 1. This 9-page document covered most of the various corps – excluding armour – and how their roles would differ in jungle conditions.

³⁰² Ibid, 20 Apr 43, '9 Aust Div exchanged training teams with 6 and 7 Aust Divs, personnel to remain on loan for approx one month'.

³⁰³ Ibid, 21 Apr 43.

³⁰⁴ Ibid, 29 Apr 43, '9 Aust Div Training Instruction No. 4 – Lessons from Operations in New Guinea' and 1 May, 'Owen Stanley – Buna Operations Information Gained on the Enemy'. Both 4-page documents are summaries of the far more detailed 18 and 21 Bde 'Report on Operations' discussed in chapter five.

³⁰⁵ AWM52, 1/5/20, 17 Jul 43, 'Decided that Trg HQ will be disbanded early in the week'. It was disbanded once the division was tasked to embark for New Guinea.

³⁰⁶ AWM52, 8/3/28, 30 Apr 43. 2/28th Bn recorded that their training syllabus for the nine weeks from 1 May consisted of: 2 weeks individual tng; two weeks sec & pl tng; 2 weeks coy tng; 2 weeks bn tng; culminating in a 1 wk Bde Ex. Training for the rest of 9 Div was very similar.

³⁰⁷ AWM52, 8/2/20, 1 Jul 43, 'Orders for move of the Bde to Cairns area for amphibious training were received'.

you'.³⁰⁸ While for the 2/24th Battalion the transition to the jungle also brought with it many problems:

General discomforts experienced when operating in this area were caused by leeches, thorns, briars, brambles, spikes...continued dampness, things that sting, itch and generally bitch and things that go bump in the night.³⁰⁹

As training progressed, 9th Division quickly realised that, 'combat in the jungle type of country...will necessitate a much higher physical condition and staying power than was necessary in the unit's operations in the western desert' as both 6th and 7th Divisions had discovered before them.³¹⁰

Men who were able to disguise not being completely fit during the North African campaigns, where motor transport was generally available, were found out as the jungle training became more arduous. Many were 'boarded' and had to find roles with HQ Company or outside the infantry battalions.³¹¹ As mentioned above, to facilitate information exchange over the next two months, training teams from all the brigades that had fought in Papua were seconded to 9th Division, with selected personnel from 9th Division being sent in the opposite direction to train with 7th Division units.³¹² Yet, as has been identified, the wide variety of the operational experiences of the troops from the various brigades could cause confusion. The 26th Brigade Commander would later recount that, 'what they were telling us differed markedly. Eventually, we made up our own minds'.³¹³

Nevertheless, 9th Division was far more fortunate than those who had preceded them, as their members admitted.³¹⁴ 2/28th would state that the training team from 2/1st Battalion provided 'advice and suggestions [which] were to prove invaluable during

³⁰⁸ DVA, AAWFA, Ronald Burridge, 2/13th Bn, Archive No: 2142, Transcript, time: 7:38:00:00.

³⁰⁹ Serle, *The Second Twenty-Fourth Australian Infantry Battalion*, p. 244.

³¹⁰ AWM52, 8/3/24, 26-30 Apr 43.

³¹¹ Incapacitated soldiers would have to appear before a medical board that would determine if they were to be downgraded to a lower classification or demobilised.

³¹² The experience of 2/32nd Bn is telling. In the period between 20 Apr and 19 May, training teams from 16, 18 and 21 Brigades provided lessons and guidance. See AWM52, 8/3/32, 20 Apr, 4, 13 and 17 May for more information.

³¹³ Coates, *Bravery Above Blunder*, p. 53. The quote is taken from the 26th Brigade Commander, Brigadier Whitehead.

³¹⁴ AWM54, 589/2/26, Part 3, '9 Aust Div Report on Operations and Capture of Lae & Finschhafen 4 Sep-2 Oct 43', p. 1 'These attachments [6 and 7 Div trg teams] proved of greatest benefit'.

the trg period'.³¹⁵ Similarly, Macfarlane would recall that the lectures and advice provided by Lt Bob Thompson of the 2/14th Battalion were:

Very helpful, because we were getting first hand knowledge of what we could expect ourselves, and it helped us in our learning experience...Thompson would go out on a twenty-four hour stunt [with the bn] and talk to us...about their own experiences and what we should expect to see [in jungle combat].³¹⁶

Critically, the need to alter the methods and procedures of desert warfare was imparted. In particular, the contrasting problems of patrolling, which necessitated a more measured approach in the jungle, and the methods needed to overcome fixed defences in jungle terrain, which were frequently very difficult to locate.³¹⁷ To improve their level of knowledge of jungle warfare 20th Bde would provide its officers with an exceptionally detailed document. In mid-May,

A file of extracts of Jungle Trg was also given out. This has been prepared by the CO in collaboration with visiting offrs of 7 Aust Div, and all information available at the present time on the conditions and difficulties of jungle fighting has been herein collated. The distribution is one per offr. Offrs are to consider this as a doctrine of trg and pass on and discuss this information with their men.³¹⁸

This 31-page file, 'Jungle Warfare Extracts', contained information from ten different training manuals and pamphlets as well as 'Lessons Learnt' documents.³¹⁹ Throughout the rest of their period of jungle warfare training the officers of the Brigade would use this document in planning weekly syllabi. The file covered all aspects of operating in tropical conditions, from infantry minor tactics, artillery, armour and the combat support arms, to hygiene, logistics and airdropping. Although the manual – like the training instructions prepared for 6th and 7th Divisions – would hasten to add that:

³¹⁵ AWM52, 8/3/28, 25 Apr. See also, John Broadbent, Phil Pike, Ray Rudkin and Bruce Trebeck (eds), *"What we have...we hold": A History of the 2/17th Australian Infantry Battalion 1940-45*, Sydney: 2/17th Battalion History Association, 1990, p. 195.

³¹⁶ Interview, Major Alan Macfarlane (Retd), 2/24th Bn, 26/5/06, Tape 1, side B.

³¹⁷ G. H. Fearnside (ed), *Bayonets Abroad: A History of the 2/13th Battalion AIF in the Second World War*, Swanbourne WA: John Burridge Military Antiques, 1993, p. 326. The problems of not adequately adapting tactics from the desert, especially with regard to offensive operations and the difficulty of providing covering fire were discussed in the previous chapter. See p. 198 & pp. 213-4 in particular.

³¹⁸ AWM52, 8/3/13, 17 May 43.

³¹⁹ AWM54, 923/1/5, 'Jungle Warfare Extracts 1943'. Included in the source materials for this document were the 'Notes on Operations' from Malaya, Milne Bay, Kokoda and the Beachheads, the 'Soldiering in the Tropics' pamphlet, discussed in chapter five, and the draft version of *MTP No 23 – Jungle Warfare*.

Tactics in the Jungle are not “BLACK MAGIC”. Certain special trg is needed and certain special emphasis on particular principles of war is needed, but the fundamentals laid down in Inf Trg still apply.³²⁰

As the men of the 9th Division increased their training on the Tablelands they would determine to what extent changes needed to be made in order to operate effectively in the jungle. Once the Lae-Finschhafen Campaign began many of the participants would be more inclined to agree with Palazzo that ‘combat in the South West Pacific area was fundamentally different from that which the AIF had experienced in the Middle East’ than those who believed that little change was necessary.³²¹ Although ‘Jungle Warfare Extracts’ does not appear to have been distributed on a formation or corps level, with the creation of documents such as this, it is clear that the Australian Army was well on the way towards a formal jungle warfare doctrine.

Before moving onto amphibious training the 9th division would undertake combined operations training in June. The differences between North Africa and operations in the tropics were once again thrown into stark relief when it was realised that artillery support for a divisional exercise consisted of a single battery per brigade.³²² Nevertheless, the 9th Division would be far better prepared for the forthcoming operations as the notes on a 26th Brigade exercise demonstrate. The objects of Exercise “Hotfoot” included:

To exercise each bn of 26 Aust Inf Bde for a continuous period of 7 days in the main phases of jungle warfare up to and including bn attack and withdrawal. To test bn organisation of supply, communication and administration. To test and review training so far carried out. To gain experience in supply by air. Co-operation with supporting arms.³²³

7th Division had, of course, undertaken brigade level exercises prior to deployment to Papua in 1942, but with inappropriate doctrine their training did not adequately prepare them for the battles ahead. The experience of those who went before them would enable 9th Division – and the 7th in the Ramu-Markham Campaign – to be avoid repeating many of the mistakes that the 7th had made.

³²⁰ Ibid, Part 2: Our Tactics in the Jungle, p.3.

³²¹ Palazzo, ‘Organising for Jungle Warfare’, p. 89.

³²² AWM52, 1/5/20, 3 Jun, ‘Combined Training’. In North Africa, three field regiments had usually supported the division, one per brigade. At the Battle of El Alamein, the 9th Division’s artillery had fired 50% more than the Corps average. The idea that now they would have such comparatively minimal support was difficult for many to accept.

³²³ AWM52, 1/5/20, 23 Jun 43, ‘Notes on 26 Aust Inf Bde Exercise “Hotfoot”’.

After completing amphibious training in July with the US 532nd Engineer Boat and Shore Regiment, the 9th Division would depart for Papua in August.³²⁴ Only days before embarkation the 20th Brigade would receive their new 'jungle green' uniforms. In an echo of the lack of planning at Kokoda and Milne Bay, the two other Brigades would have to fend for themselves.³²⁵ 2/24th Battalion would eventually cajole a quantity of dye and some salt from the laundry unit at Milne Bay and work out a rudimentary process for dyeing the battalion's uniforms – as had the 21st Brigade a year earlier.³²⁶ Macfarlane would later tellingly state that 'everything was makeshift', the Army was 'not ready for this [jungle operations] and they had to 'improvis[e] in a lot of things'.³²⁷ Notwithstanding these problems, the two and a half weeks at Milne Bay was of significant value as:

The troops quickly realised that jungle trg on the Tablelands of Qld was a pale imitation of the real thing. Only New Guinea itself could teach them the real meaning of mud, rain, mountains and anopheles mosquitoes.³²⁸

Other lessons that could only be learnt in the suffocating jungles of the tropics included the difficulties of observation and determining what needed to be carried and what could be discarded.³²⁹ As the final amphibious exercises at Normanby Island concluded, the 9th Division was as well prepared as it could be for its first jungle campaign.

Unlike the units flung desperately into battle in the dark hours of August-September 1942, when the 7th and 9th Divisions once more went into battle they would be extremely well trained and far better armed and equipped. After they had completed

³²⁴ Although central to the Australian Army between 1943-45, the subject of amphibious operations is beyond the purview of this thesis. For further information see Glenn Wahlert (ed) *Australian Army Amphibious Operations in the South-West Pacific: 1942-45*: Edited Papers of the Australian Army History Conference held at the Australian War Memorial, 15 November 1994, Georges Heights, NSW: Army Doctrine Centre, 1995.

³²⁵ W. G. Loh & J. D. Yeats (eds), *Red Platypus: A Record of the Achievements of the 24th Australian Infantry Brigade Ninth Australian Division 1940-45*, Perth WA: Imperial Printing Company Ltd, 1945, p. 44. See photo and caption of troops standing on the beach at Buna dyeing large drums of uniforms.

³²⁶ Serle, *The Second Twenty-Fourth Australian Infantry Battalion*, pp. 250-1. The officer who used his initiative and undertook the dyeing was rebuked, but the battalion then passed the information onto their sister units so that they too could go into battle wearing more appropriately camouflaged uniforms.

³²⁷ Interview, Alan Macfarlane, 2/24th Bn, 26/5/06, Tape 1, side B.

³²⁸ Masel, *The Second 28th*, p.130. 24th Brigade spent seven days at Milne Bay before sailing to Buna where they continued training for another two weeks. 26th Bde spent approximately three weeks at Milne Bay.

³²⁹ For observation problems see AWM52, 8/3/15, 15 Aug 43. The mortar pl held a practice shoot and realised it was 'impossible to observe the [fall of] shot'. For anti-malarial and weight issues see John G. Glenn, *Tobruk to Tarakan: The Story of a Fighting Unit*, Adelaide: Rigby Ltd, 1960, p. 195.

their training on the Tableland, 7th Division would move to various camps around Port Moresby where they would continue their training. Here they would be able to acclimatise and tailor that training to the forthcoming operations. River crossings, ‘intercom in semi-open country’, carrying of ‘two Vickers MG and ammn across country’ and ‘cross-country practice in cable-laying and maintenance’ were all practiced in terrain that resembled the Ramu-Markham area.³³⁰ Finally, the first brigade to be deployed – the 25th – undertook an exercise that was ‘planned to simulate the Lae track from Nadzab’.³³¹ This training period would also see the introduction of the US Army 536 handset, generally referred to as the ‘walkie-talkie’.³³² While these would greatly assist with the speed of communications and most importantly, it was claimed, ‘saved the lives of many a runner’, once again ‘linesmen toiled tirelessly in the heat and mud’ laying cable – demonstrating that in tropical conditions it was still the most reliable method available.³³³

By September 1943 great strides have been made towards developing a uniform doctrine, which was discernibly absent in the early months of 1943. As the 9th Division returned home from the Middle East and the 6th and 7th Divisions recovered from the first Papuan Campaigns, the Australian Army was still struggling to evaluate the lessons of Kokoda, Milne Bay and the Beachheads. With a plethora of ‘lessons learnt’ documents, operational reports and suggestions from all quarters on how the army should be organised, trained and equipped for future operations this was not surprising. Once the AIF Divisions had reformed and began training on the Atherton Tablelands the experience of those who had fought in the first jungle campaigns was incorporated into more appropriate training programmes. With the exchange of training cadres between 6th, 7th and 9th Divisions, the construction of jungle scout and assault ranges, and an increased emphasis upon acclimatisation to the jungle, the AIF was well advanced in its attempts at achieving a tactical uniformity with regard to jungle warfare that had hitherto not existed.

³³⁰ AWM52, 3/3/31, ‘Tng Syllabus – Week ending 8 Aug 43’, p.1.

³³¹ Crooks, *The Footsoldiers*, p. 264. This four-day exercise was as realistic as possible, involving all attached troops and the artillery unit who would support them in action.

³³² AWM52, 8/3/31, 26 Aug 43, ‘Demonstration to all Coys of “Walkie Talkie” sets’.

³³³ For statements on speed of communications and runners see Crooks, *The Footsoldiers*, p. 276. For comments on laying cable see Dimmack, *Signals of the Silent Seventh*, p.90.

These changes were due in no small measure to the aforementioned improvements instituted by LHQ and DMT. By June, both Canungra and Beenleigh were enjoying the benefits of increasing numbers of instructional staff who had operational experience in the jungles of the SWPA. This in turn saw an improvement in the quality of personnel at all levels – from the rifle section up to Divisional Headquarters. With the increased numbers of experienced battalion officers being seconded to the LHQ Training Teams, the wider dissemination of jungle warfare learning across the Australian Army continued. As more streamlined and efficient systems for the collection, collation and distribution of lessons learnt material were introduced, the DMT began to produce more useful training manuals and pamphlets. The large-scale establishment and expansion of Schools, under centralised control, also undoubtedly improved training across the army.³³⁴ Although not all these changes occurred in response to the new challenges posed by operating in tropical locales, the training which was undertaken at those establishments much better prepared soldiers for the challenges of jungle warfare than had previously been the case.

Once the 7th and 9th Divisions returned to action in September it quickly became apparent that there would be no repeat of the desperate defensive battles of the Kokoda Track. This can be attributed to several factors. One was identified by Lesley Cook who, in late 1943 stated that the: 'high class, first class troops [of the Japanese Army] had gone, and they weren't the same soldiers at all'.³³⁵ Moreover, many years of fighting, on several fronts, and the privations imposed by the US Air Force and US Navy's submarine fleet in particular, had taken a heavy toll on the Japanese military capacity for war fighting. As has been demonstrated elsewhere, however, until early 1944 the Australian Army had undertaken the majority of the land fighting in the SWPA.³³⁶ If the swathe of changes and improvements across the breadth of the Australian Army, with respect to doctrine and training, tactics, weapons and equipment had not occurred during the course of 1943, it is arguable that Australian casualties could have been as troubling as in the first Papuan Campaigns. The six-

³³⁴ AWM54, 937/1/2. A telling comparison appears when examining Appendices 'F' and 'H'. These list the Schools respectively in June 1942 and July 1945. Not only are there far more of them by 1945, but they are also more corps and task specific thereby allowing more focused training.

³³⁵ DVA, AAWFA, Cook, 21 Brigade Sigs, Transcript, time: 09.01.00.00.

³³⁶ Coates, *Bravery Above Blunder*, p. 256 and Long, *The Six Years War*, p. 323 and *The Final Campaigns*, p. 40.

month training period in 1943 meant that the 7th and 9th Divisions would be far better prepared for the forthcoming campaigns than had the 6th and 7th Divisions a year earlier. There would be two more years of hard fighting to come, but by September 1943 the critical elements in the development of Australian jungle warfare doctrine and training were in place. Ramu-Markham and Lae-Finschhafen would merely confirm this.

Chapter 7: 'No new lessons of importance': The Final Campaigns

At Balikpapan, on the east coast of the island of Borneo on 1 July 1945 the final 'large-scale Allied operation' of the Second World War took place.¹ As the LVTs carrying the assault waves of the 7th Division moved towards the shore under cover of a massive naval and air bombardment, the culmination of more than three years learning and development unfolded. Although the overwhelming nature of the fire support available to the Australian Army – in stark contrast to their first jungle campaigns of 1942-43 – appeared to render superfluous the jungle warfare skills they had obtained over the years since Kokoda and the Beachheads, numerous 'quick and merciless melees' in the jungle blackness belied that interpretation.² The experience gained in those bloody and expensive battles in Papua, followed by the crucial training period on the Atherton Tablelands in 1943, had enabled the battle-hardened divisions of the 2nd AIF to absorb and then successfully impart their knowledge to the rest of the army and also to the wider Commonwealth forces.³ While the necessity for the strategically peripheral final Australian campaigns of 1944-45 is still debated, the 'skill and professionalism' with which they were conducted would not have been possible without those initial experiences.⁴ That the experience could have been obtained in a less costly manner has already been discussed, but does not diminish the scale of the transition that the Australian Army had undergone between 1942 and 1945.

Once the 9th Division had completed its Huon Peninsula operations in February 1944, all the AIF divisions that had served in the Middle East had obtained jungle warfare

¹ Long, *The Final Campaigns*, p. 502.

² Crooks, *The Footsoldiers*, p. 392.

³ NAA, MP729/6, item 17/401/581, 'Lethbridge Mission'. This voluminous document was provided to members of the British Army Lethbridge Mission, which visited Australia and 7th and 9th Divisions' in New Guinea in 1943. The primary aim of the Mission was to obtain as much information as possible on Australian Army training and tactics of jungle warfare. The document answered virtually every conceivable question and contained all the accumulated Australian knowledge on operations in a tropical theatre against the Japanese. See, also Moreman, 'Jungle, Japanese and the Australian Army: learning the lessons of New Guinea', pp. 8-11.

⁴ Stanley, *Tarakan*, p. 203. (Although Stanley was referring to Oboe One – the Tarakan operation – it is appropriate for all the final campaigns.) For other works that discuss the controversial 1945 campaigns see, for example, Charlton, *The Unnecessary War*; Grey, *The Australian Army*, p. 157 and *A Military History of Australia*, pp. 184-8; Keogh, *South West Pacific 1941-45*, p. 406; Long, *The Final Campaigns*, p. 547 and John Robertson, *Australia at War 1939-1945*, Melbourne: Heinemann, 1981, p. 179.

experience.⁵ This chapter will examine the 1943-44 Ramu-Markham and Lae-Finschhafen Campaigns and the long training period that followed, before finishing with a brief overview of the 1945 campaigns. It will assess the developments and innovations that occurred during this two-year period and identify which of those were applied in the final campaigns. Most importantly it will evaluate the revised jungle warfare doctrine and training adopted over the course of 1943, and to what extent modification was necessary in light of the subsequent campaigns. The chapter will argue that the *Tropical Warfare* manuals, published in December 1944 and February 1945, provide a key indicator of the state of jungle warfare development in Australia. Although refined and expanded, the similarities between *MTP No. 23*, discussed in the previous chapter, and these manuals, suggest that, to a large extent, by late 1943 effective and appropriate doctrine and training methods were in place. The most noticeable additions were to the chapters on the employment of the supporting arms – especially the use of armour – in a tropical environment. Ultimately, however, the final campaigns did not witness any major developments or revisions to the lessons that had been obtained over the course of the preceding three years.

Kuring is correct that the *Tropical Warfare* manuals ‘continued to be the Australian Army’s main references on the subject’ until the late 1950s.⁶ However, this must be qualified by the fact that they were largely ignored until 1955. Far more significant is that when the Australian Army required new jungle warfare training manuals – concurrent with both the deployment of ground forces to the Malayan Emergency and the simultaneous re-establishment of Canungra in 1955 – it only slightly modified the *Tropical Warfare* manuals of 1944-45.⁷ This confirms that the most important lessons of the jungle campaigns had already been correctly identified and translated into appropriate doctrine.

⁵ 19 Brigade, 6th Division was the only large formation of the 2nd AIF not to have seen action in the South West Pacific. It would have to wait until 6th Division’s Aitape-Wewak Campaign beginning in November 1944 for this to change. 2/14th Fd Regt of 8th Division, which remained in Darwin when the Division was captured in Singapore, also had to wait until 1944 before it served in the SWPA.

⁶ Kuring, *Redcoats to Cams*, p. 175.

⁷ AMF, *Infantry Training Volume IV (Australia), Tactics (Tropical Warfare) Part I, Infantry Section Leading*, 1956 & *Infantry Training Volume IV, Tactics (Tropical Warfare) Part II, Platoon and Company in Battle*, 1957. (At 255 and 476 pages respectively, these manuals are more detailed than their predecessors. In particular, they include larger sections on the use of the supporting arms in tropical environments. Nevertheless, it is clear from their content that they are a natural progression of those earlier manuals and contain much of the same material.)

‘Not as bad as we were told’: 9th Division in New Guinea

Upon completion of their final training at Buna and Milne Bay, the three brigades of 9th Division boarded troopships and sailed for Red Beach. Their task was the capture of Lae. After the climatic battle to seize the heights of Sattelberg in November the 26th Brigade would reflect that neither the enemy nor the environment was as fearsome as reports had intimated. Nonetheless, it is clear that for many in the 9th Division, their first experience of jungle warfare was extremely challenging.⁸ As Madeley would recount, ‘fighting the Japs in the jungle was very hard on the nerves: you never knew where they were, especially snipers up trees’.⁹ While they were far better prepared than the units who had fought the Japanese in the first Papuan Campaign, many of the same problems that had confronted the 6th and 7th Divisions recurred for the 9th Division. For all involved, conditions were much more unpleasant than their previous experiences, with the constant ‘mud and slush and rain’ making the most simple of tasks very awkward.¹⁰ As the 2/13th Battalion’s historian would state:

The change from open warfare, on which it had been reared, to close jungle conditions in itself was a severe trial, but when accompanied by the conditions imposed by the New Guinea jungle, it was doubly severe. It was not a case of man against man or tank against tank, unit against unit, or corps against corps, as in the Middle East theatres for as well as fighting the Japanese soldier on an individual basis, men had to combat mosquitoes, fever and disease, rain, mud and leeches, and invariably action would be fought over shocking terrain with the infantryman obliged to carry on his back everything he needed.¹¹

Fighting in this environment clearly demanded exceptionally fit troops. However the need to carry virtually everything they required over appalling terrain frequently resulted in physical exhaustion prior to combat.¹² That the appalling and precipitous terrain was too steep for vehicular transport, also meant that a commander was forced to detail a sizeable percentage of his force to work as porters – as had been the case during the 17th Brigade’s Wau-Salamaua campaign. This, of course, meant a reduction in the size of the force at his disposal for carrying out his primary task,

⁸ See Dexter, *The New Guinea Offensives*, p. 650, ‘Many of the lads consider it to have been harder and more nerve-wracking than any 10 days at Tobruk or El Alamein’.

⁹ Joe Madeley, 2/13th Bn, quoted in Janet Hawley, ‘Once Were Soldiers’, *The Age*, Good Weekend supplement, 25-27 April 2008, p. 26.

¹⁰ DVA, AAWFA, Joseph Backhouse, 2/28th Bn, Archive No. 0735, transcript, time: 7.20.30.00.

¹¹ Fearnside, *Bayonets Abroad*, p. 355.

¹² Kuring, *Redcoats to Cams*, p. 175.

defeating the enemy. On one occasion approximately 640 men from the 2/2nd Machine Gun Battalion and the 37/52nd Battalion were allotted as carriers to keep supplies coming forward.¹³

For a division that had fought in the highly mechanised theatre of the Western Desert, the fact that each battalion now had to rely upon approximately a dozen jeeps for all their transport needs represented a major adjustment. In a similar vein, a year later, as they prepared for the Aitape-Wewak Campaign, the 2/11th Battalion would state that the heavy loads they had to carry into battle meant that ‘we were more like mechanised infantry in the Western Desert (minus transport) instead of being a Jungle Battalion’.¹⁴ The impossibility of supply by any other means than carrier line also saw a repetition of the arguments that had occurred between Allen, Rowell, Blamey and MacArthur during the Kokoda Campaign. The 2/24th Battalion would record that higher headquarters ‘were calling for more speed, and, looking at their maps and air photos, were sending constant enquiries as to why the forward coys were not gaining ground more quickly’.¹⁵ The failure to appreciate that terrain and logistics – and not the enemy – were frequently the major determinants governing the pace of operations was clearly a lesson that each formation new to jungle warfare had to learn for themselves.¹⁶ Lessons could be passed on to those who would follow, but this did not guarantee that when confronted with the same problems adaptation would be easy, let alone seamless.

Throughout the course of the Lae operation, followed by the longer and more difficult Finschhafen-Sattelberg campaign, the 9th Division – despite having the benefit of the Atherton Tablelands training period – came to the realisation that first-hand experience was crucial for success in the jungle. The problems of command and control and the decentralised nature of warfare in such tortuous jungle clad mountains

¹³ Serle, *The Second Twenty-Fourth Australian Infantry Battalion*, p. 265. These troops were carrying supplies for the 2/24th Bn while others were needed to supply the two other battalions in 26th Brigade.

¹⁴ H. M. Bink (ed), *The 2/11th (City of Perth) Australian Infantry Battalion 1939-45*, Perth: 2/11th Battalion Association, 1984, p. 132. The 2/11th was one of the battalions of 19 Brigade, 6 Division and did not see action in the South West Pacific until the Aitape-Wewak Campaign.

¹⁵ Serle, *The Second Twenty Fourth Australian Infantry Battalion*, p. 281.

¹⁶ See, for example the comment in Ronald J. Austin, *Let Enemies Beware: “Caveant Hostes”: The History of the 2/15th Battalion, 1940-45*, McCrae, Vic: 2/15th Battalion AIF, 1995, p. 216, by the battalion CO that it was not the enemy, or their training that caused problems, but the terrain and weather that was the biggest challenge.

were epitomised, on a small scale, by the 2/13th Battalions' involvement in the battle of Kakakog. The battalion history admitted that it was 'difficult to portray in detail [and that] it was, on the whole, a platoon show, though in many instances isolated sections found themselves fighting independent actions'.¹⁷ On a larger scale, even when a full brigade was able to undertake a coordinated assault, such as 26th Brigade's upon the heights of Sattelberg, the commander, Brigadier Whitehead was forced 'to attack with three battalions forward on three separate routes'.¹⁸ Battalions would fight almost independent battles, unable to observe or directly assist the other, but with the outcome of the wider battle dependant upon each successfully completing its assigned task.

As the 6th and 7th Divisions' had already realised, the decentralised nature of jungle warfare, with its emphasis upon self-sufficiency, meant that the standard of training – and not just fitness – throughout a unit, had to be higher even than it had been in the desert. When a section or platoon was allocated an independent task or cut off by enemy action from the remainder of the unit, the need for self-reliance and the highest level of training and ability of all its individual soldiers became self-evident. This made it especially surprising that at least one brigade of 9th Division in action at Finschhafen would receive reinforcements who 'had little training and no battle experience'.¹⁹ As discussed earlier, in both 1941 and 1942, the rapid advances by the Japanese had seen similarly unprepared soldiers thrust into combat, with unfortunate results.²⁰ While strategically 9th Division would not suffer as a result of having to train these men and fight the Japanese at the same time, many of the reinforcements would become casualties due to their inexperience. Although this would be the last time untrained soldiers were posted to AIF units, it is extremely difficult to understand how it could have taken until October 1943 for this practice to cease.

In the jungle every soldier required exceptional competence with all the weapons of the infantryman, and needed to know how to react instantly to the unexpected.

¹⁷ Fearnside, *Bayonets Abroad*, p. 343.

¹⁸ Palazzo, 'Organising for Jungle Warfare', p. 89 & Coates, *Bravery Above Blunder*, p. 209.

¹⁹ Broadbent, *What we have...we hold!*, p. 275 and Fearnside, *Bayonets Abroad*, p. 350.

²⁰ See chapters two and five for discussion of untrained soldiers hurriedly despatched to Malaya and Papua.

Echoing Bergerud's comments, the historian of the 2/32nd Battalion would argue that in jungle warfare:

Success now depended on the section leaders and platoon commanders because lack of visibility and spasmodic communications made it difficult for company and battalion command to influence the course of events, once battle had been joined.²¹

The increased use of 'walkie-talkies' and even carrier pigeons would help with communication and control to an extent, but a battalion or brigade commander, now more than ever, had to rely upon his subordinates to carry out his orders with little ability to influence the course of events. This would be reflected in the *Tropical Warfare* manuals published in late 1944.

Similarly, the artillery regiments and field engineers of the 9th Division found the new operational environment more challenging than the desert and – most importantly – called for much closer cooperation with the other combat arms. As the only arm to have four-wheel drive vehicles – and caterpillar tractors – the engineers were much in demand. The artillery, in particular, were dependant upon them to prepare gun positions and to manoeuvre their 25-pdrs.²² With the few tractors available being in great demand, manpower, as so often in the Beachhead Campaign, was generally the only method possible to move the guns.²³ And there was never sufficient manpower to accomplish all the required tasks. 9th Division, like 7th Division in the Ramu-Markham, would realise that jungle warfare required more engineer personnel and mechanical equipment than was permitted on their war establishment.²⁴

When the 2/6th Field Regiment arrived at Finschhafen, they were able to pass on their recently acquired knowledge to the 2/12th Field Regiment and to improve the work of the FOOs and OPOs working with the infantry battalions of the 9th Division.²⁵ Over the course of October and November 1943 this assistance would pay dividends with

²¹ Tregellis-Smith, *Britain to Borneo*, p. 201.

²² Warby, *The 25 Pounds*, p. 341. All units – whether infantry, artillery or engineers – had a small number of American 4wd Jeeps. Tractors and bulldozers, however, were in much shorter supply.

²³ Parsons, *Gunfire!*, p. 159.

²⁴ AWM54, 589/7/9, 'Operation Postern: Lessons and comments ex Royal Australian Engineers, 9th Aust Division reports – 1943', p. 35, 'the normal establishment of three Fd Coys to the Divisional Engineers...is insufficient and additional engineer personnel must be provided'.

²⁵ AWM52, 4/2/6, 9 November & 9 December 1943. The 2/6th Fd Regt had served at Nassau and Tambu Bay providing support for Australian and US operations in the Wau-Salamaua Campaign.

9th Division battalion commanders adamant that the accuracy of fire support, especially when close targets required engagement, had been exemplary.²⁶ As in the early jungle campaigns, occasional friendly casualties were unavoidable. These were due to inaccurate maps, uncertainty of friendly positions and the Japanese practice of ‘hugging’ the Australian positions in an attempt to render artillery support too dangerous.²⁷ Although Coates is largely correct in arguing that ‘intimate air support...was never really effective during the campaign’, many of the units involved gained experience in working with Arty/R aircraft that would later prove valuable.²⁸ In order to continue transmitting ideas and lessons – such as these – that had been developed and refined in this campaign, to as wide an audience as possible, entries in the *Army Training Memorandum* contained more up to date material.²⁹ In this manner and, as discussed in the previous chapter, by the more timely distribution of comprehensive ‘lessons learnt’ material, improvements in the dissemination of knowledge across the Australian Army continued.

‘Torpy sits on Sat’: Matildas prove their worth

Of great value for the conduct of jungle operations throughout the remainder of the war in the South West Pacific was the knowledge gained in the use of armour during the campaign, most notably in supporting the assault on the heights of Sattelberg. As discussed in chapters five and six, the use of tanks in the jungle had not been categorically proven, notwithstanding their pivotal role in the Beachhead battles.³⁰ A brief training period at Milne Bay during which ‘C’ Squadron, 1st Army Tank Battalion and 26th Brigade had worked together, foreshadowed the far more important training period of late October and early November in the Heldsbach plantation on the road to the summit of Sattelberg.³¹ Beginning with C Company of the 2/48th Battalion on 31 October, each rifle company, together with a platoon of engineers from the

²⁶ Ibid, 9 December 1943.

²⁷ Tregellis-Smith, *Britain to Borneo*, p. 202. During an attack the Japanese would attempt to engage the Australians at ranges under 30 metres. By doing this they hoped that the Australian FOOs would be unable to call for artillery support as the possibility of friendly casualties was too great.

²⁸ Coates, *Bravery Above Blunder*, p. 252. See also AWM52, 4/2/6, 9 December 1943 & Warby, *The 25 Pounders*, p. 359 for discussion of operating with the Boomerangs of No 4 Air Co-operation Squadron RAAF.

²⁹ See, for example, *ATM* No. 29, 17 January 1944, Part II, Training – Artillery and Infantry Co-operation, p. 13.

³⁰ See chapter five, pp. 240-3 and chapter six pp. 298-9.

³¹ Hopkins, *Australian Armour*, p. 132.

2/13th Field Company would spend three days training with a troop of three Matilda Infantry tanks.³²

On 17 November, the assault began. As the tanks slowly advanced, they used their Besa machine-guns to spray the scrub on either side of the narrow mountain track, while the 2-pounder turret gun or 3-inch howitzer was used to destroy Japanese bunkers and gun emplacements.³³ Engineers, covered by the infantry, rendered safe mines and booby traps or employed their D6 bulldozers to ensure the Matildas could continue the advance.³⁴ An armoured corps officer – generally the Troop Commander – walked behind the tanks with the infantry platoon and communicated via walkie-talkie or telephone with the tanks, directing their fire and warning them of any concealed enemy positions.³⁵ This method of communication would be adopted in all future tank-infantry operations.³⁶ An advance of only 450 yards was made on the first day of the assault, but nine days later the summit was reached.³⁷ The use of a combined infantry, armour and engineer force, supported by a company of the 2/2nd MG Battalion, field and heavy artillery regiments and an ‘American rocket projector’, provided a precursor to the style of operations that would reach its inevitable conclusion at Balikpapan and Labuan Island.³⁸ Equally importantly, the lessons learnt here would be largely applicable during the 6th Division’s coastal advance towards

³² Ibid, p. 132; Handel, *Dust, Sand and Jungle*, p. 76 and Coates, *Bravery Above Blunder*, p. 210. See also AWM52, 8/3/36, November to December 1943.

³³ AWM54, 925/7/29 ‘Report of employment of tanks in operations North of Finschhafen’, pp. 1-3 ‘1 Aust Tk Bn AIF Narrative for November 1943’.

³⁴ Ibid, p. 2. See also, McNicoll, *Ubique*, p. 205. The D6 dozers had angled grader blades, which deflected small arms fire, and enabled the engineers to grade the track and push obstacles clear. (A contemporaneous US Army report AWM54, 925/7/26, ‘Extracts from a report on tanks in New Guinea 1943’, 4 October 1943, demonstrates similar tactics were used by the US on Arundel Island. See also, AWM54, 925/7/9, ‘Report on Tank Operations, The use of tanks in SWPA, 1943’. LHQ received this 40p report, largely based on US operations on New Georgia, on 8 December 1943. It has proven impossible to determine to what extent these US reports were used by the Australian Army and whether they had any bearing on the Australian tactics employed at Sattelberg.)

³⁵ Handel, *Dust, Sand and Jungle*, p. 65.

³⁶ AWM54, 617/7/3, ‘C Squadron 2/9 Aust Armd Regt. Ops Reports Tank-Inf Fighting Vehicles and activity reports Oboe One Tarakan – July 1945’, p. 3.

³⁷ Dexter, *The New Guinea Offensives*, p. 652. After the 2/48th Bn had captured the heights of Sattelberg the message ‘Torpy sits on Sat’ was sent to the 2/32nd Bn. ‘Torpy’ was the nickname of Brigadier David Whitehead, commander of 26 Brigade. He had previously commanded the 2/32nd Bn. The use of slang and nicknames was to deceive the enemy.

³⁸ Coates, *Bravery Above Blunder*, p.210.

Wewak, and to an even greater extent the drive by 3rd Division along the Buin Rd on Bougainville.³⁹

After their successful role in the seizure of Sattelberg the Matildas continued to provide crucial support to the 9th Division, and later the 4th AMF Brigade.⁴⁰ Even before these operations were concluded, detailed reports were being compiled, initially from 4th Australian Armoured Brigade and the 26th Infantry Brigade, and soon after from Headquarters New Guinea Force.⁴¹ One of the first of these urged caution and suggested that:

Although the tactics employed in the SATELBERG campaign and the advance to SIO, proved successful, it is felt that too much reliance cannot be placed on same as the enemy will obviously have found a means to combat tanks when they are next employed against them.⁴²

Fortunately for the Australians, throughout the remainder of the Pacific War, the Japanese military did not develop effective anti-tank weapons notwithstanding the occasional success.⁴³ The tactics developed – both in the training period prior to, and further adapted and modified during the assault on Sattelberg – would be used with only slight alterations by Australian units during all subsequent operations in the South West Pacific.⁴⁴ A highly detailed training document compiled by 20 Brigade 9th Division, prior to their planned exercises with armoured forces in mid-October 1944, is clearly based upon these early reports released in January and February 1944.⁴⁵ Although additional suggestions derived from exercises conducted over the course of 1944 appear, the tactical formations adopted and the types of training suggested for

³⁹ See DVA, AAWFA, Colin Salmon, 2/4th Aust Armd Regt, 'A' Sqn, Archive No. 0388, Transcript, time: 4.20.30.00. Salmon was a tank commander on Bougainville and in this transcript discussed the close co-operation necessary for success in that campaign. The tactics employed closely mirror those developed at Sattelberg.

⁴⁰ Coates, *Bravery Above Blunder*, p. 243.

⁴¹ See AWM54, 591/7/25, 'Employment of Tanks in Jungle Warfare 4th Armoured Brigade Nov/Dec 43 – Finschhafen-Sattelberg-Wareo' (This file contains three reports, including sections of AWM54, 925/7/29); AWM54, 593/7/3 'Main Lessons from recent Operations Sattelberg-Wareo The Employment of Army Tanks in Jungle Warfare – Jan 44' HQ 26 Aust Inf Bde and AWM54, 925/7/21 'Tank Operations – New Guinea' 19 February 1944, HQ NGF.

⁴² AWM54, 925/2/2, 'Tank Tactics – Employment of Tanks in New Guinea 1944', HQ 1 Aust Tank Bn (AIF) 23 Feb 44, p. 1.

⁴³ DVA, AAWFA, Salmon, Transcript, time: 3.15.00.00. 'Well, it was almost point blank range. The six inch shell made an awful mess and hit the first tank'.

⁴⁴ AWM54, 589/7/11. On p. 10-11 of this report Lt-Col Wilson discussed the use of armour in the jungle and included diagrams of the formations employed.

⁴⁵ AWM54, 925/7/27 'Training with Tanks – Notes on a discussion held 10.10.44, before commencement of training, 20th Aust Inf Bde'. Only the first third of this document deals with tank-inf training, the rest being devoted to other aspects of infantry training for jungle operations.

the armour, infantry, engineers and artillery were essentially the same as those from the early 1944 reports.⁴⁶ This would remain true for the rest of the war. In fact, a report written after the Oboe One landings on Tarakan in May 1945 stated that ‘in all cases the tactics of infantry tank cooperation were those developed in the FINSCHHAFEN operations, and their soundness was confirmed’.⁴⁷

The only modifications suggested, and adopted, were to the tanks themselves. With greatly restricted visibility in the jungle resulting in combat occurring at extremely short ranges, and anti-tank weapons firing from directly ahead, the front of the Matilda was clearly the most vulnerable.⁴⁸ Due to its sturdy construction, however, the only areas of the Matilda that demonstrated any vulnerability were the idler gear, the tracks and the turret ring. To obviate this problem, reports suggested either that ‘shields should be fitted’ or that ‘extra armour be added to the front of the tank’.⁴⁹ As Handel highlighted, these recommendations were acted upon. Consequently, over the first half of 1944, all Matildas had ‘cast steel guards [installed] over the front idlers’ to protect the tracks.⁵⁰ Similarly, turret ring protection was added to ensure that a lucky hit from an anti-tank gun could not jam the turret and prevent it from being rotated to engage enemy positions.⁵¹ Although the introduction of specialised bridge-laying and flamethrower equipped tanks for the final 1945 campaigns provided more options for the infantry-armour assault, the tactics developed over the course of the Finschhafen to Sio advance required little modification. As with the majority of the doctrinal and training methods for jungle operations previously discussed, by January

⁴⁶ See for example, AWM54, 423/8/41, Pt 2, ‘Employment of Matilda Tanks in jungle – Extracts from 4 Aust Armd Brigade Training Instructions’. Much of the information contained in this report, dated January 1944 – including the 1st Army Tank Bn report from November 1943, discussed above – is reproduced in this document.

⁴⁷ AWM54, 617/7/47, ‘Report on Operations “Oboe One” The Landing at Tarakan Island Borneo’, p. 24. See also AWM54, 925/7/25, ‘AFV User Report Op – Oboe One’, 2/9 Aust Armd Regt, May 45, p. 1.

⁴⁸ The thick jungle and commensurate difficulty in spotting the enemy forced the Matildas to fight ‘closed up’; that is with the tank commander and the driver operating with all the hatches covered for safety. This made it more difficult for the crews to spot the enemy firing at them, which increased the likelihood of the tanks being hit by enemy fire. In the North African campaign, tank crews generally operated with the hatches open.

⁴⁹ AWM54, 593/7/3, ‘The Employment of Army Tanks in Jungle Warfare’, HQ 26 Aust Inf Bde, 13 Jan 44, p. 10 and AWM54, 423/8/41, ‘Extracts from 4 Aust Armd Bde Training Instruction No 7. Employment of Tanks in Jungle Warfare New Guinea’, p. 3.

⁵⁰ Handel, *Dust, Sand and Jungle*, p. 65. See also Peter Donovan, *Waltzing Matildas: The Men and Machines of the 2/9th Australian Armoured Regimental Group in Australia and Borneo 1941-46*, Blackwood, South Aust: Donovan and Associates, 1988, p. 80.

⁵¹ Handel, *Dust, Sand and Jungle*, p. 65.

1944 the Australian Army had effectively adapted to the tropical environment and the tactics of their Japanese opponents. As Keogh stated, ‘while the jungle remained an impediment to movement, it no longer held its former terrors’.⁵² Subsequent campaigns would merely refine and reinforce the lessons already learnt. This was as true of 7th Division as it was of the 9th.

‘Much Better Prepared’: The 7th Division in the Ramu-Markham

For the men of the 7th Division stepping from their transports at Nadzab aerodrome, the campaign they were about to commence, although lengthy and arduous, would be remembered more favourably than Kokoda and the Beachheads.⁵³ Having been tempered in the furnace of those campaigns and then reinforcing those experiences on the Atherton Tablelands, the battles to follow – although costly once again due to malaria – would witness the culmination of more than a year’s learning.⁵⁴ After the campaign the 18th Brigade, in a significant echo of the 9th Division following the Lae operation, recorded that ‘it is not considered that the operations bought to light any new lessons of importance, though many lessons of previous operations were again emphasised’.⁵⁵ Foremost among these were the need for supreme fitness in the mountainous and humid terrain, close cooperation between the combat arms and the importance of accurate, plentiful and timely fire support – whether air or artillery.

Notwithstanding the greatly reduced allocation of vehicles causing logistical problems – as had been predicted during the transition to the ‘jungle infantry division’ establishment – the men of 7th Division generally found this campaign to be a vast improvement over their introduction to jungle warfare in 1942. As Baldwin would state, ‘it was physically demanding but you couldn’t compare it to the Owen Stanley Ranges, the food supply was good...[and] we also we had artillery support which was very comforting’.⁵⁶ For the majority of the units, the advance through the kunai grass in which temperatures could soar to over 50 degrees Celsius, although enervating, did

⁵² Keogh, *South-West Pacific 1941-45*, pp.342-3.

⁵³ See, for example, Laffin, *Forever Forward*, p. 115: ‘The battalions were certainly much better prepared for the new operations than they had been for the Kokoda Trail’.

⁵⁴ *Ibid*, p. 128 for casualty figures for the 2/31st Bn over the campaign. Companies of 135 men on departure from Port Moresby had been reduced to 50 by the end of the campaign.

⁵⁵ AWM254, item 214, ‘The New Guinea Campaign: Report on Operations of 18 Australian Infantry Brigade, Ramu Valley – Shaggy Ridge 1 January to 6 February 1944’, Lessons, p. 9.

⁵⁶ DVA, AAWFA, Baldwin, 2/27th Bn, transcript, time: 9.03.30.02-9.06.00.00.

not involve sustained combat.⁵⁷ This does not mean that casualties were minimal, with the ever-present threats of malaria and scrub typhus. Notwithstanding the considerably improved anti-malarial measures, infections continued at a high rate.⁵⁸ Commensurate with those improvements were those made to the operation of the Brigade Field Ambulance, which ensured more rapid medical attention and subsequent evacuation by jeep to Dumpu and thence by aircraft to Nadzab if required.⁵⁹

Those who faced the most difficult challenges, at least until the 7th reached Dumpu, were the engineer and artillery units. As the route of the advance across the plains of the Markham and then the Ramu Valley closely followed the two rivers, there was a plethora of creeks and streams to cross. Many were passable to infantry, but all required the engineers to construct bridges or fords to facilitate the passage of the guns, ammunition and supplies that followed. While supporting the 2/14th Battalion, the 2/4th Field Regiment 'got half way across this creek when the runners on the bridge gave way. The gun and everything sank down into the bed of this creek'.⁶⁰ Eventually the gunners were able to borrow enough jeeps to drag the 25-pounder out of the creek, but in so doing they destroyed the remnants of the bridge, much to the chagrin of the engineers who then had to begin construction all over again.⁶¹ Unlike those earlier campaigns, where they appeared to have been deployed as an afterthought – on a token scale – and frequently used in rear Line of Communication areas, the engineers worked tirelessly to keep the track open ensuring that although 'husbanding of resources' was necessary 'the men at the sharp end never felt short of food and equipment'.⁶²

The importance of engineers, both in supporting the forward infantry companies during the advance, and using their expertise to help support logistics units, was once again highlighted during this campaign. One of their most important roles in jungle warfare against the Japanese was assisting with the preparation of night defensive

⁵⁷ Johnston, *The Silent 7th*, p. 180.

⁵⁸ Dickens, *Never Late*, p. 29, for improvements in anti-malarial measures and Draydon, *Men of Courage*, p. 186 for high rate of infection.

⁵⁹ Draydon, *Men of Courage*, p. 186.

⁶⁰ DVA, AAWFA, Marsden, 2/4th Fd Regt, transcript, time: 6.15.00.00.

⁶¹ Ibid, time: 6.15.30.00. See also, Henry, *The Story of the 2/4th Field Regiment*, p. 230.

⁶² Johnston, *The Silent 7th*, p. 206.

positions and booby traps for the artillery regiments.⁶³ Although on the defensive, the Japanese frequently sent out raiding patrols who launched night attacks on infantry and artillery positions. The centrality of the engineers to a successful jungle warfare campaign was further highlighted by Lt-Col Wilson who, whilst working as an observer visiting 7th Division, recorded that ‘wherever I went the need for more engineers was stressed [and that] mechanical equipment such as bulldozers and road graders are essential’.⁶⁴ The need for more engineers was reiterated after the campaign in a report which argued that an ‘additional field company’ for each division and more mechanical equipment were necessary for jungle warfare in ‘undeveloped country’.⁶⁵ By the end of the war, the engineers, as a percentage of the Australian Army had increased dramatically. From a low of two percent in North Africa in 1941, by 1945, the RAE consisted of slightly less than ten percent, demonstrating that in the tropics, more than any other theatre, they were crucial to successful operations.⁶⁶

For the artillery, this campaign would reinforce the lessons learnt in the earlier jungle campaigns and demonstrate the accuracy of the comment in the 2/4th Field Regiment war diary that:

It is realized more than ever that this type of warfare requires much training. All the training that one obtains in such places as Queensland do not mean very much in the regard that the conditions met with must necessarily be different, and the real aspect is more often missed than not.⁶⁷

The problems encountered in the tropics manifested themselves in numerous forms. They included the necessity for the construction of ‘heavy timber rafts...on which the guns floated, rather than sat’ due to the constantly waterlogged ground and the regular earth tremors which knocked the guns off line.⁶⁸ The changes in atmospheric conditions in the tropics which altered the flight of shells once fired, and the difficulty of finding observation posts in a land of unending mountain ranges also brought new

⁶³ AWM52, 4/2/4, 14 December 1943: ‘The engineers were called upon to produce warning mines which were to be set up around E and F Troops’. (The engineers demonstrated how to set up trip wires attached to grenades.)

⁶⁴ AWM54, 589/7/11, p. 14

⁶⁵ AWM54, 589/7/2, Part 5, ‘7 Australian Division Report on Operation “Outlook” Appendix A to G. S Ops, 29/1/44’ p. 1.

⁶⁶ McNicoll, *Ubique*, pp. 327-8.

⁶⁷ AWM52, 4/2/4, 29 December 1943.

⁶⁸ See Henry, *The Story of the 2/4th Field Regiment*, p. 266 timber rafts & p. 272 for earth tremors.

challenges to the artillerymen.⁶⁹ Most of these issues had not been contemplated in the Mediterranean or North African campaigns.

Until the infantry began the climb up Shaggy Ridge to force the Japanese out of their positions the advance continued in the same manner: relatively easy movement by the infantry, and the artillery and engineers working hard to keep up. Upon arrival at the foothills of the towering Finisterre Ranges, the previously rapid progress of the 7th Division was halted. The nature of the fighting for Pallier's Hill, Green Sniper's Pimple and Prothero 1 and 2 would echo the battles that 17th Brigade had recently finished in the Wau-Salamaua Campaign. While lessons from that campaign had been disseminated to the forces in Australia, they were not crucial to the success of the 7th Division.⁷⁰ The experience of their first jungle campaign, combined with the training on the Atherton Tablelands would assist the 7th in eventually capturing Shaggy Ridge. Most importantly, the casualties suffered – especially battlefield ones – were significantly less than in 1942. Better prepared medical services and the greater availability of support, both artillery and air power, also contributed to this outcome.

As in previous jungle campaigns, terrain became the major determinant of how the fighting would occur. Captain Daunt of the 2/12th Battalion would record that:

My own company position was the oddest I have ever known, three platoons echeloned one behind the other along a knife-edged ridge; in fact the position was only one weapon-pit wide.⁷¹

Opposing positions were less than 100 yards apart and at times under thirty. With the Japanese occupying well-constructed and sited defences the Australians were forced to resort to tactics from a previous campaign and, at times, a previous war. The blast bombs discussed in chapter five, which had been developed to destroy the Japanese bunkers at Buna were reintroduced by the 2/12th Battalion on Shaggy Ridge.⁷² The short distance between the opposing forces led the Australians to construct periscopes that were similar to those 'used by their forebears at Gallipoli'.⁷³ Further improvisation would see the invention of a twin magazine for the Owen guns. As

⁶⁹ Ibid, p. 291 for atmospheric problems and p. 252 for OP issues.

⁷⁰ See previous chapter for experiences and lessons of 17 Bde in Wau-Salamaua Campaign.

⁷¹ Dexter, *The New Guinea Offensives*, p. 739.

⁷² Graeme-Evans, *Of Storms and Rainbows*, p. 371.

⁷³ Spencer, *In the Footsteps of Ghosts*, p. 178.

discussed in the previous chapter, with unexpected contact in the jungle occurring at short ranges, the ability to provide immediate and sustained automatic fire was crucial. Sixty rounds instead of thirty could be the difference between life and death.⁷⁴ This frontline improvisation would later appear in Wilson's report.⁷⁵

One of the most important lessons that had been learnt from the Beachhead Campaign, in particular, was the inadvisability of attacking well-prepared Japanese positions without adequate fire support. Brigadier Chilton, commander of the 18th Brigade, therefore decided:

To use siege tactics. His brigade would sit close around the Japanese, harass them and make sure that they did not withdraw undetected. By means of heavy artillery bombardments, mortar fire and dive-bombing, Chilton hoped to destroy the Japanese defences, inflict crippling casualties and "generally soften up the position for a final assault".⁷⁶

After assaults by all three brigades of the 7th Division in turn, the 18th Brigade was finally able to capture the remaining Japanese positions on Shaggy Ridge in early February 1944. This outcome was both a culmination and a precursor; a culmination of a 'well coordinated all-arms team effort' and a precursor to the manner in which the final campaigns would be fought, with infantry searching for Japanese positions then pulling back to call in 'massive' fire support, whether artillery, armour or ground attack aircraft.⁷⁷ Although it occurred relatively early in the campaign, the comments by the Director of Military Training after his visit to New Guinea in October 1943 apply equally to the 7th and 9th Division's 1943-44 campaigns. Brigadier Irving reported that, 'it appears that training carried out prior to the recent operations was satisfactory and no commander had any major changes in method or policy to suggest'.⁷⁸ Two months later, Lt-Col Wilson reached a similar conclusion, stating that 'Operations have proved that the training in jungle warfare received by units in

⁷⁴ See, for example Bradley, *On Shaggy Ridge*, between pages 118-9 the photo of Cpl Les Thredgold, 2/27th Bn on Shaggy Ridge with two magazines welded together on his Owen gun.

⁷⁵ AWM54, 589/7/11, p. 15, 'Owen guns should be provided with twin magazines on the scale of 2 per gun for rapidity of loading. Some units have modified magazines accordingly'.

⁷⁶ Dexter, *The New Guinea Offensives*, p. 754.

⁷⁷ See Graeme-Evans, *Of Storms and Rainbows*, p. 385 for 'all-arms effort' & Givney (ed), *The First at War*, p. 389 for 'massive' fire support.

⁷⁸ MP742/1, 240/1/1325, 'LHQ Tactical School – 3(a) Policy'. This large file contains over 80 documents, one of which is entitled 'Notes of visit DMT to New Guinea 28 Sep to 6 Oct', 11 Oct 43. Page 1 of the two-page report contains the above quote.

AUSTRALIA was on sound lines'.⁷⁹ After the successful outcome of these campaigns in February 1944, few would have found any reason to question these conclusions. Training throughout 1944 would largely confirm this interpretation.

'Uninteresting and tedious': Training on the Atherton Tablelands 1944-45

For all three AIF infantry divisions, a period of more than a year of training, equipping and waiting for their next deployment was greeted with varying degrees of acceptance and resignation.⁸⁰ The sentiment expressed by the historian of the 2/12th Field Regiment, that they had 'entered upon the most uninteresting and tedious year of their service in the AIF' would have been recognisable to most members of the AIF during 1944.⁸¹ In a repeat of 1943 much of the first half of 1944 would be spent with units of 7th and 9th Divisions recovering from their recently completed campaigns since 'every coy was very much under-strength. Many men were still suffering intermittent attacks of malaria and were convalescing'.⁸² As units regained their full strength, with the return of men from hospitals and an influx of men who had completed the 28-day course at Canungra, training began in earnest.⁸³ Elements of this would be based on the lessons of Shaggy Ridge and Finschhafen, but for the most part was similar to that carried out in 1943, with increased emphasis upon co-operation with the supporting arms.⁸⁴

Over the course of 1944, training for the infantry units progressed from individual and collective to battalion and brigade, culminating in divisional exercises supported by artillery, armour and aircraft. These exercises had one common denominator, that unlike the earlier jungle campaigns, fire support would be available promptly and in sufficient quantity. This meant that rather than throwing lightly armed infantry against

⁷⁹ AWM54, 589/7/11, p. 13.

⁸⁰ The wait for action varied greatly. 19 Brigade of 6th Division, who had not seen action since their evacuation from Crete in late May 1941, experienced the longest wait. They would not fight again until 6th Division was deployed to Aitape in November 1944. 9th and 7th Divisions next saw action in May and July 1945 respectively.

⁸¹ Parsons, *Gunfire!*, p. 209. See also, Johnston, *The Silent 7th*, p. 207, 'for most of the 7th Division, the duller year lay ahead' and Barter, *Far Above Battle*, p. 215, 'By October 1944 many units had been out of battle for long periods. This led to disenchantment with the army, morale problems and boredom'.

⁸² Serle, *The Second Twenty Fourth Australian Infantry Battalion*, p. 298.

⁸³ Loh & Yeates (eds), *Red Platypus*, p. 71.

⁸⁴ Dickens, *Never Late*, p. 293.

fixed defences, an overwhelming amount of munitions would be used instead.⁸⁵ Those units that had not had the benefit of training with tanks moved to Tank Rock for extended exercises, which 'left a feeling of great confidence that big things could be achieved with the new set-up'.⁸⁶ In their forthcoming operations, all the divisions would have the benefit of tank support.⁸⁷ Much of this training involved exercises in 'open warfare' but it is clear from training instructions that it would 'be done with the object of teaching principles of demonstrating phases of jungle fighting. Generally it will be considered as preparatory work to training in the jungle'.⁸⁸ Later in the year, all three divisions would again practice amphibious landings.⁸⁹

While the 2nd AIF continued to train and waited to learn where they would next be operationally deployed, LHQ and the DMT were working on the creation of updated versions of *MTP No. 23*. As discussed previously, these two manuals, published in May 1943, drew upon the experiences of Malaya, the Philippines, Kokoda and the Beachheads.⁹⁰ Although of great value, having been based upon numerous reports from those campaigns, it was clear that revised versions were necessary in light of the recently completed 7th and 9th Division campaigns. In particular, expanded sections on the employment of artillery, armour and engineer units in jungle operations were crucial. A sharper delineation between the roles and responsibilities of commanders at various levels also occurred with the publication of the revised manuals. The first to be released was *Tropical Warfare (Aust) No. 1*, which dealt with:

All tactical aspects of the infantry division and in some detail with the brigade and battalion. Its use is general and it pre-supposes considerable tactical knowledge and experience on the part of the reader.⁹¹

⁸⁵ Clift, *War Dance*, p. 409. While the 6th Division would accurately argue that they were denied the level of support available to the 7th and 9th in their final campaigns, they would still agree that they were far better supported than in the early jungle campaigns of 1942-3.

⁸⁶ Burns, *The Brown and Blue Diamond at War*, p. 204. Tank Rock was the main training area for armoured warfare in Queensland. All three divisions would exercise with Matildas in 1944-45.

⁸⁷ Due to the mountainous terrain they were operating in, tank support would not be possible for 17 Brigade, 6th Division. Its two sister brigades advancing along the coast would have armour support.

⁸⁸ AWM52, 925/7/27 'Training with Tanks – Notes on a Discussion held 10/10/1944, before commencement of training, 20th Aust Inf Bde'. Amongst this 140p document are numerous files related to the training that 9th Division undertook during 1944. The above quote is from '9 Aust Div Training Instruction No. 5 General, 20 May 44', p. 2, Training in Open Country and Jungle.

⁸⁹ See, for example, Russell, *The Second Fourteenth Battalion*, p. 262 and Austin, *Let Enemies Beware*, p. 259.

⁹⁰ See chapter six, pp. 282-3.

⁹¹ CAL, Box 44, *Tropical Warfare (Aust) Pamphlet No. 1* 1944 General Principles, AHQ, p. 3.

The decision to entitle the revised manuals *Tropical Warfare*, rather than 'Jungle Warfare', also demonstrated a desire to ensure that its intended audience realised that operating in the tropics was not simply a matter for lightly armed infantry, as the 1942-43 publications tended to suggest.⁹² As discussed in chapter six, officers such as Porter and Vasey argued that there had been an over reaction to the Japanese successes during the first year of the Pacific War.⁹³ They insisted that the fundamental principles of war were not altered by the advent of jungle warfare and that many of the changes instituted during the 1942-43 period were unnecessary.⁹⁴ The preface to *Tropical Warfare*, which stated that 'the principles of war apply equally as in any other theatre of operations' was intended to reaffirm this stance and the contents of *FSR* and *IT37* which many officers believed had fallen out of favour due to their lack of attention to operations in jungle or mountain terrain.⁹⁵

This understanding was highlighted during the second half of 1944 in a training instruction, which stated that:

Until the probable theatre of operations is known, the bulk of the training will be carried out in open and semi-open country [but that] Training in jungle warfare will however, be continued generally throughout the training period. Commanders of all grades must become accustomed to adapting their organisation, formations and procedure to suit whatever type of ground they may be required to fight through.⁹⁶

Although the argument that jungle warfare was not 'a new art of war' is largely correct, the belief that the terrain and environment of the SWPA required alteration to the standard infantry division – and as a consequence, how it was employed – is irrefutable.⁹⁷ Even Porter, at the conclusion to his report on tactics, listed a series of problems inherent in jungle warfare operations, concluding with the statement that the 'difficulties are numerous'.⁹⁸ Campaigns over the Kokoda Track, at Wau-Salamaua, Finschhafen and Shaggy Ridge, support Palazzo's argument that in 'New Guinea

⁹² Moreman, 'Jungle, Japanese and the Australian Army: learning the lessons of New Guinea'. [No pagination.]

⁹³ See chapter six, pp. 285-6. See also AWM54, 923/1/6, 'Notes on recently expressed concepts of tactics' 11 Oct 42, Brig SHWC Porter, 30th Bde, especially pp. 1-2.

⁹⁴ This is the general argument of Moreman, 'No 'Black Magic': Doctrine and Training for Jungle Warfare'. See pp. 78-9 in particular.

⁹⁵ *Tropical Warfare* No. 1, p. 9.

⁹⁶ AWM54, 925/7/27, '9 Aust Div Training Instruction No. 18, 6 Sep 44', Training in Open and Close Country and Nature of Training. (The main reference throughout this Trg Instn is *FSR* Vol. II.)

⁹⁷ Moreman, 'Jungle, Japanese and the Australian Army', [No pagination.]. See also chapter six, pp. 275-8 for extended discussion on the creation of the 'jungle infantry division'.

⁹⁸ AWM54, 923/1/6, p. 8.

much of the combat power of a division organised on the British standard was unemployable'.⁹⁹ The campaigns on Bougainville, New Britain and Aitape-Wewak in the final year of the war also support this interpretation.¹⁰⁰ For 26th Brigade on Tarakan, although the greater availability, and wider variety of fire support was welcome, the steep and broken terrain still demanded the heaviest sacrifice from the rifle sections.¹⁰¹ Even though, as discussed shortly, by early 1945 the full pre-1943 RAA establishment of three field regiments was returned to, this does not invalidate the argument that operations in the majority of the islands of the SWPA required altered formations, units, doctrine and training. Notwithstanding its reaffirmation of the efficacy of the pre-war doctrine of *FSR* and *IT37*, the content of much of *Tropical Warfare* supports this contention. The introductory paragraphs devoted to the various arms, make it clear that changes to standard operating procedures will be necessary if that arm is to function successfully in the tropics.¹⁰²

The revised 94-page *Tropical Warfare* manual collated information from the 1943 campaigns, especially Ramu-Markham and Lae-Finschhafen. It covered areas such as tactics, man management, the support arms, use of native labour, administration and medical services. It was more comprehensive than *MTP No. 23* and acknowledged that 'it is necessary, therefore, that the conditions peculiar to tropical areas be studied in detail, and the limitations imposed by them thoroughly understood'.¹⁰³ In another admission that jungle warfare did require adjustment, *Tropical Warfare* also stated that 'the terrain is not conducive to easy movement'.¹⁰⁴ Although deferring to the views of Vasey and Boase, the tone of the manual demonstrated that combat in tropical regions demanded alterations to 'traditional' war fighting methods.¹⁰⁵ While 'concentration of force' and 'maintenance of the objective', for example, apply equally in the jungle as in any other theatre, how these were achieved in the tropics frequently required different solutions than in North Africa or Syria. It is also clear

⁹⁹ Palazzo, 'Organising for Jungle Warfare', p. 90.

¹⁰⁰ The relatively flat terrain and developed areas that 7th Division was operating in during the Balikpapan operation did allow the employment of heavy weapons and equipment on a scale similar to European-style theatres.

¹⁰¹ Serle, *The Second Twenty-Fourth Australian Infantry Battalion*, pp. 352-3.

¹⁰² *Tropical Warfare*, No. 1, pages 9, 17-20.

¹⁰³ *Tropical Warfare*, No 1, p. 9.

¹⁰⁴ *Ibid*, p.12.

¹⁰⁵ The issues surrounding the necessity for change in order to operate effectively in the jungle were discussed in chapters five and six. In particular the views of Generals Vasey and Boase and Brigadier Porter were examined. See chapter five, pp. 179-80 & chapter six, pp. 280-6.

from the language and explanations on how to overcome the problems inherent in operations in the tropics that far more reflection had gone into this publication than previous manuals.

This more sophisticated understanding is exemplified in the section on artillery, which states that ‘Observation Post Officers are therefore necessary with the forward troops [and that] registration by sound...will be necessary when direct observation is not possible’.¹⁰⁶ While the tactic had been used by the men at the frontline at Buna, and later in New Guinea, this modification to doctrine formalised a change necessitated by the new challenges of jungle warfare. It also signified to its audience that warfare in the tropics, although involving different challenges from previous campaigns, would involve all the combat arms working in conjunction. While the extent of artillery or armour employable would frequently be less than in the desert, this did not mean that warfare in the tropics was solely the domain of the infantry. Where Vasey and Porter were correct was in their belief that terrain and climatic conditions should not prevent the use of the support arms. This belief had led to excessive infantry casualties in the early jungle campaigns in Papua.¹⁰⁷ *Tropical Warfare* sought to disabuse those who still clung to that understanding. Over the course of 1944 changes to the establishment of the jungle division would see in June the return of two field regiments, followed in late 1944 by a return to the original WE with three field regiments for each infantry division.¹⁰⁸ *Tropical Warfare* was widely distributed after its publication on 30 November 1944 and remained the primary source of tropical warfare information for battalion level commanders and above.¹⁰⁹

Published two months after *Tropical Warfare No. 1*, the second volume, *Notes for Junior Leaders*, closely resembled *MTP No. 23 Notes for Platoon & Section Leaders*.¹¹⁰ The new manual was longer than *MTP No. 23* but contained several very

¹⁰⁶ *Tropical Warfare*, p. 19. (Sound registration became the norm throughout all the SWPA campaigns.)

¹⁰⁷ See chapter five and the discussion on the Kokoda Campaign, especially pp. 158-161 and 174-190 for employment of artillery.

¹⁰⁸ Horner, *The Gunners*, pages 377 and 397.

¹⁰⁹ The distribution list demonstrates that *Tropical Warfare* was to be used operationally as well as by all Australian Army training establishments. See ‘Scale of Distribution’ on the back cover.

¹¹⁰ *Tropical Warfare No. 2 ‘Notes for Junior Leaders’*, 31st January 1945, AHQ.

similar chapters.¹¹¹ As the manual was intended for both the company commander and his subordinates it included expanded sections on hygiene, sanitation and the supporting arms. The use of this manual, supplemented with ‘training schemes and lectures’ provided an excellent platform for those who had to fight in the tropics.¹¹² For example, the training syllabus of the 3rd Division fighting on Bougainville drew upon *Tropical Warfare* Nos 1 and II, as well as Savige’s *Tactical and Administrative Doctrine for Jungle Warfare*. This demonstrated that the manuals were at the forefront of training for the Australian Army in the latter stages of the war.¹¹³

Even before these two pamphlets were distributed throughout the army in early 1945, by June 1944, when the lessons and reports from 7th and 9th Division had been examined and collated, the transformation of the Australian Army into a battle-hardened jungle warfare experienced formation had taken place. Although, as discussed earlier, both the 7th and 9th believed few new lessons had been learnt during their 1943-44 campaigns, the experience of tank-infantry operations, for example, would assist in all the final campaigns. Apart from that important addition to jungle warfare learning, the transition from the army that had struggled to adapt to the terrain, climate and the enemy in 1941-2 was virtually complete by late 1943. The final campaigns would merely reinforce the lesson learning that had occurred over the course of the previous three years.

‘Overwhelming fire support’: The 1944-45 Campaigns

When the 6th Division sailed for Aitape in October 1944 they could not have known that their longest campaign lay ahead. Notwithstanding that fact, the order by the 17th Bde commander that ‘the maximum use will be made of air strikes, mortar and MMG fire for the support of offensive patrols’, signified the vast change in fortunes – and practice – since the early battles in the SWPA.¹¹⁴ Months of difficult combat lay ahead, and many more casualties would be sustained before the Japanese surrendered, but for the most part the Australian Army would be involved in ‘mopping up’

¹¹¹ See *MTP No. 23*, pp. 38-43 and *Tropical Warfare No. 2*, pp. 63 for the same diagrams of booby traps.

¹¹² *Tropical Warfare No. 1*, p. 3.

¹¹³ AWM54, 945/5/1, ‘Training Syllabus – 3 Australian Division’ July 1945, pp. 1-2. (Most lessons have the two volumes of *Tropical Warfare* or Savige’s manual as their required reading.)

¹¹⁴ Hay, *Nothing Over Us*, p. 423. The 2/6th Bn fought through the Torricelli and Prince Alexander Ranges with the 17th Brigade, 6th Division.

operations. The degree and variety of support available to the Australian Army in these campaigns exceeded any they had witnessed previously, matched only by that available to the 9th Division at El Alamein.

Due to the exigencies of the broader strategic situation, the advance by the 6th Division from Aitape to Wewak was the least well supported of the three AIF campaigns of 1945.¹¹⁵ Nonetheless, the 2/1st Battalion recorded that ‘men from earlier campaigns who missed this one will no doubt have been surprised at the massive support the infantry...was receiving’.¹¹⁶ Supplied by Landing Craft, Tank (LCT) or via the oft washed out road back to Aitape – the 16th and 19th Brigades could call upon the guns of three field regiments, the MMGs of the 2/3rd MG Battalion, Matildas of the 2/4th Australian Armoured Regiment, naval gunfire from the RAN and the Beauforts of the RAAF.¹¹⁷ Despite the undoubted benefits of this increase in fire support, the nature of jungle warfare for the infantry in particular had not changed. As an anonymous infantryman of the 2/3rd Battalion would ask:

What is Jungle War? Sometimes a fierce, bloody gunspitting [sic] moment from dug-in positions, sometimes pinned down in ambush, other times foot-slogging, gut-tearing physical exertion against the toughest terrain in the world.¹¹⁸

Similarly, a battalion historian would argue that:

Whether or not contact was made with the enemy there was always the fear of a possible ambush around the next corner, the need for vigilance at all times and a readiness to dive off the track at the sound of the first shot.¹¹⁹

The ever-present fear of the unknown, or the unseen, made jungle warfare more widely disliked than previous theatres. Men would not be lost in the same numbers as in the earlier jungle campaigns, but the need to constantly patrol in order to discover Japanese positions saw platoons and companies slowly whittled down. This occurred through death, more frequently because of injury, and constantly because of disease

¹¹⁵ The broader strategic discussion is beyond the parameters of this study. Suffice it to say that once the US forces under General MacArthur withdrew from Aitape to take part in the Philippines operations, the availability of supply vessels – especially landing craft – was drastically reduced.

¹¹⁶ Givney (ed), *The First at War*, p. 389.

¹¹⁷ Ibid, p. 389. Although obsolete for several years, the Beauforts were able to operate virtually unchallenged due to the absence of Japanese fighter aircraft and minimal anti-aircraft fire.

¹¹⁸ Clift, *War Dance*, p. 384.

¹¹⁹ Tregellis-Smith, *All the King's Enemies*, p. 277.

and sickness – notwithstanding the more regimented use of Atebrin.¹²⁰ With the Japanese content to remain in their positions and force the Australians to take the initiative, ‘the nature of the country...made defence much easier than attack’.¹²¹ As their numbers decreased, the trend towards a preponderance of automatic weapons for close quarters jungle combat – discussed in chapters five and six – became more pronounced. The 2/4th Bn would record that ‘in some sections the only rifle still being carried was the “E-Y” rifle’, everyone else carried either an Owen or a Bren gun.¹²² Once shots range out – frequently killing the lead scout – the instant reply from the Australians would be a wall of automatic weapons fire.¹²³ Under cover of this barrage, men would move forward to recover their dead or wounded comrade and if the enemy position was lightly held, assault it. If the position were more substantial they would generally retreat 50 or 100 yards where their FOO or OPO would call down fire support upon the Japanese position. Depending on the number and severity of friendly casualties, the patrol would then decide to continue or retire to company or battalion headquarters and report its findings. Once re-supplied the scenario would begin again; for the 6th Division it would continue in this fashion for many months.

The final two AIF campaigns of the war – the 7th and 9th Divisions’ Borneo operations – involved even greater use of fire support than the Aitape-Wewak campaign. The assault on the island of Tarakan by 26th Brigade would be more costly than either the 7th Division’s amphibious landing at Balikpapan or the actions at Brunei Bay and Labuan Island by the 20th and 24th Brigades of 9th Division. But once again the preponderance of fire support ensured that casualties would not be as great as during the Papuan campaigns.¹²⁴ In these final campaigns the nature of the terrain, combined with the type of fighting thus forced upon the Australians, would lead once again to

¹²⁰ Barter, *Far Above Battle*, pp. 235-6. Due to rising rates of malarial infection, and the belief that this implied that some men were not taking their Atebrin tablets, officers were ordered to place the tablets on the tongue of each man and then to check to ensure that the soldier had swallowed.

¹²¹ Hay, *Nothing Over Us*, p. 446.

¹²² The Unit History Editorial Committee, *White Over Green*, p. 272. The ‘EY’ rifle was a .303 rifle with a grenade discharger cup attached to the muzzle to propel M36 grenades up to 150 metres. Named after Sir Ernest Youlle who invented it. Often referred to as ‘Emergency Yoke’ or ‘Emergency Use’.

¹²³ Wick, *Purple Over Green*, p. 274. See also, Joe Madeley, 2/13th Bn, in Hawley ‘Once Were Soldiers’, p. 26, ‘We’d file along jungle tracks, following the forward scout. That was a rotten job, he was the first chap to get shot at, and an awful lot of them got killed’.

¹²⁴ Stanley, *Tarakan*, p. 1, ‘240 Australians and three-quarters of the island’s 2000-strong Japanese garrison died’. Of the Balikpapan operation, see Johnston, *The Silent 7th*, p. 239, ‘The invaders lost 229 dead and 634 wounded. Of these, fewer than 100 were not in 7th Division units’. For Brunei Bay and Labuan see, Johnston, *That Magnificent 9th*, p. 238, ‘For 114 Australians killed, the Japanese lost at least 1234, and probably many more’.

the majority of the casualties being suffered by the rifle sections.¹²⁵ Most notably, section leaders would suffer disproportionate casualties.¹²⁶ As *Tropical Warfare No. 2* highlighted:

Operations in the jungle demand a high standard of military knowledge and resourcefulness on the part of junior leaders. The section commander will find it necessary to assume additional responsibility and to make quick decisions.¹²⁷

In order to fulfil those requirements in jungle warfare, the section leaders were therefore forced to expose themselves to a greater level of risk than in combat in more open terrain.¹²⁸

Notwithstanding the difficulties imposed by the terrain – and the Australian Army tactical doctrine for jungle warfare – the command that ‘no attack was to be made without maximum fire-power being employed beforehand’ was enacted in all of these campaigns.¹²⁹ At Balikpapan Brigadier Eather ordered that all his battalions were ‘to move fwd slowly making utmost use of sp [supporting] arms’.¹³⁰ The 2/33rd Bn recalled that:

Almost every company and platoon assault, and sometimes section actions, were preceded by devastating covering fire and preparation. Companies and platoons then “walked on” to the objectives...the story of Balikpapan was “probe it – blast it – then occupy it”.¹³¹

In this manner, the final AIF campaign of the Second World War was undertaken. Bridge-laying and flame-throwing tanks, the employment of air strikes by squadrons of B-24 Liberator heavy bombers and napalm drops from P-38 Lightning fighters, all helped to reduce the numbers of Australian casualties.

Apart from the greater availability and variety of supporting weapons, and the better organisation and co-ordination evident in the planning of these operations, there were few new developments of Australian jungle warfare doctrine or training. The many

¹²⁵ Serle, *The Second Twenty-Fourth Australian Infantry Battalion*, p. 352/3.

¹²⁶ Stanley, *Tarakan*, p. 171.

¹²⁷ *Tropical Warfare No. 2*, p. 23.

¹²⁸ As *Tropical Warfare No. 2*, p. 23 further argues ‘higher commanders will have to base their plans, to a greater extent than in open warfare, on the information gained by the infantry section’. See also, Kuring, *Redcoats to Cams*, pp. 212-3.

¹²⁹ Serle, *The Second Twenty-Fourth Australian Infantry Battalion*, p. 334.

¹³⁰ AWM52, 8/2/25, 4 July 1945: ‘Conference with Bn COs and COs of supporting arms, 1330 hrs’.

¹³¹ Crooks, *The Footsoldiers*, p. 392.

changes in tactics, training, weapons, equipment and medical services that had occurred over the 1941-43 period in particular, ensured that the Australian Army of the final two years of the Second World War was arguably the most experienced, well-trained and professional jungle warfare force in the world. With the establishment of the Jungle Warfare Training Centre at Canungra, the revised focus on combat in tropical locales at the LHQ Tactical School at Beenleigh, dissemination of doctrine via the LHQ Training Teams, and regularly updated training pamphlets and manuals, the Australian Army was better able to tackle the previously unforeseen challenges of jungle warfare than any other military in the Second World War. From September 1943 onwards the main requirement for more effective operations in the tropics was better co-operation between the arms and greater co-ordination of air and naval support.

Yet this is not to suggest that the transition, which occurred from 1941 to 1945, was easy or seamless. As this study has shown, the Australian Army of 1945 was a product of bitter combat experience and hard, realistic training. The claim that the Australian soldier made 'an amazingly quick and thorough adaptation to the demands of tropical and bush warfare' is tenuous.¹³² This thesis has argued that gradual learning and incremental improvement is a far more plausible interpretation. Any criticism of the conduct of the early jungle warfare campaigns by the Australian Army is not directed at the soldiers themselves. With inadequate weapons, equipment, clothing and support, allied to inappropriate doctrine and training, they performed exceptional feats of heroism against both a fearsome opponent and an unknown environment. By 1944 the problems evident in the early campaigns had been identified and rectified. Hard and challenging training courses in terrain similar to that which would be faced on the islands of the South West Pacific had been created. The lessons of those earlier campaigns, combined with the experiences of the 1943-44 campaigns and the extended training periods on the Atherton Tablelands had now been collated and disseminated across the Australian Army. Although made post-war, the statement by the CGS that 'we must avoid the situation where soldiers have to be killed to learn', had come to fruition prior to the final campaigns.¹³³

¹³² McCarthy, *South-West Pacific Area First Year*, p. 591.

¹³³ Lt-General Sir Henry Wells, CGS 1957, in Grey, *The Australian Army*, p. 192.

Conclusion

Over the course of the Second World War, the Australian Army underwent an extraordinary transformation. From a force that was ill equipped, poorly organised and with inappropriate doctrine and training methods in 1939, it had been completely remade by 1945. The first transition, to enable the 2nd AIF to operate effectively in the Mediterranean theatre, although noteworthy, did not demand the swathe of adaptations and improvisations of the second. The entry of the Imperial Japanese Army into the war in December 1941, saw the Australian Army facing an unknown opponent in an undreamt of locale. This second transition, between 1942 and 1945, saw modifications to weapons, uniforms, equipment and most importantly, doctrine and training. Without these last two crucial elements the events that unfolded in the South West Pacific Area would have done so very differently. In March 1942, as the first AIF units returned from the Middle East, there was – notwithstanding the experiences of the 8th Division during the Malayan Campaign – little understanding of the difficulties that lay ahead, nor how to overcome them. An army that was equipped, trained and experienced in large-scale, multi-unit, open warfare had to rapidly reconfigure itself to meet the unexpected challenges posed by combat in the jungles, swamps and mountains of Papua, New Guinea, Bougainville and Borneo.¹ More often than not, this was achieved by soldiers at the front line who fought – and died – at Milne Bay, Kokoda and the Beachheads. The lessons of those first campaigns, although acquired at great cost, would provide the basis for the training and doctrine that would, with some modification and improvement, be applicable for the remainder of the war.

This study has analysed the processes involved and explained how that transformation occurred. It has demonstrated that the victorious army of 1945 was forced to critically examine the defeats of 1941-42 and work rapidly to develop appropriate solutions. Moreover, the transition undergone by the Australian Army over the course of the Pacific War was not simple or straightforward. The fighting over the Kokoda Track and the campaign at the Beachheads, although containing many examples of great bravery, could have been far less costly if the army had been

¹ Keogh, *South West Pacific 1941-45*, p. 474. See also, Palazzo, 'Organising for Jungle Warfare', p. 89 who argued that 'Combat in the South West Pacific Area was fundamentally different from that which the AIF had experienced in the Middle East'.

better prepared. As stated in the previous chapter, this criticism is not directed at the men ordered to turn back the tide of the Japanese advance; they were not found wanting. Rather, this study has shown that the responsibility for the lack of Australian Army preparedness for jungle warfare must lie overwhelmingly with successive inter-war Australian governments and Army Headquarters.

Most of this responsibility rests with governments fixated on the supposed guarantee of protection provided by 'Fortress Singapore' and the Royal Navy fleet that was to be based there. This fixation meant that preparations for combat in the region to our north were, as chapter one demonstrated, virtually nonexistent. Reaction to the appalling costs of World War One – human and financial – led governments in the inter-war years to virtually ignore defence affairs. The Australian role as one element in a broader Imperial Defence system also militated against focusing upon combat in the islands to our north. The repeated warnings by Australian Army officers of the growing threat of Japanese militarism were also largely ignored.² It was firmly believed that if, or when, Australia next went to war it would be as part of an Imperial force in the Middle East or Europe, against the most likely threat, Nazi Germany. Although this belief became reality, the lack of preparedness of the Australian Army was clearly evident in 1939 and again when faced by the Japanese in late 1941. For this state of affairs the Australian Army must also share some of the culpability.

While chronically under-resourced for much of the inter-war period, the army had not kept up to date with advances in military thinking and technology, even at a theoretical level. The year-long training period in the Middle East prior to their first experience of combat was therefore crucial. It allowed the Australian Army to obtain a considerably higher level of readiness than would otherwise have been the case. A similarly long period afforded the 8th Division in Malaya did not result in the successes of the 6th Division in North Africa or the 7th in Syria. As chapter two highlighted, this was largely beyond the control of the 8th. They were doomed by British and Australian government decisions taken during the 1920s and 1930s and incorrect strategic and tactical decisions combined with a lack of air support during the campaign. Along with the loss of the 8th when Singapore fell, went the first

² D. M. Horner, 'Lieutenant-General Sir Vernon Sturdee: The Chief of the General Staff as Commander', p. 154.

Australian Army experiences of jungle warfare. This set back the creation of a body of knowledge of jungle warfare. Although General Bennett, the commanding officer of the 8th Division managed to return to Australia, the information he provided was not crucial. While the Australian Army may escape censure for the debacle at Singapore, the same cannot be said for the wasted six months training in Australia prior to the departure of 7th Division to Papua.³

As chapter four demonstrated, the opportunity to acquire knowledge of Papua and New Guinea was spurned and the 7th spent months route marching in NSW and Southern Queensland and attempting to apply the supposed lessons of Malaya to their training in unsuitable terrain. As General Rowell would state after the campaign, ‘what was lacking, of course, was work in the jungle conditions that were to follow’.⁴ If the 7th had been sent to Papua they would have been able to conduct training and patrols in the terrain and under the climatic conditions in which they would soon have to fight.⁵ The argument that they were better used in Australia does not withstand detailed examination.⁶ Ill-equipped and with inappropriate doctrine, the 7th Division – aided by militia units – fought valiantly. Being forced to learn jungle warfare tactics in combat, however, had only one possible outcome – excessive casualties. The retreats of July to September 1942 and the losses suffered in the Papuan Campaign should have lain to rest the assumption that the Australian is a born soldier. The belief that you can ‘give him a uniform and a rifle and he becomes more than a match for any opponent’, was fallacious.⁷ The unknown and extreme conditions of tropical rainforest were ‘a test of physical endurance and fighting capability’ – even for the battle-hardened soldiers of the 7th Division.⁸

Pushing the Japanese back along the Kokoda Track to Buna was certainly an achievement as Moremon argued, but it was against an ‘enemy whose sole intention

³ Except of course, for the appalling decision to send several thousand virtually untrained reinforcements from Australia to Singapore mere weeks before the city fell. The broader strategic decision of which units should have been sent to Malaya and the Dutch East Indies – for example the diversion of experienced units of 7th Division to Java – is beyond the scope of this thesis.

⁴ Rowell, *Full Circle*, p. 110. See also DVA, AAWFA, Mason, 2/14th Bn, time: 3.11.00.00.

⁵ See, for example, the quote by Katekar, 2/27th Bn, chapter four, p. 138, for this sentiment.

⁶ See for example the argument in Horner, *High Command*, pp. 215-217.

⁷ Peter Pedersen, ‘The AIF on the western front: The role of training and command’, p. 167 in McKernan & Browne, *Australia Two Centuries of War & Peace*, pp. 167-193.

⁸ Moremon, ‘Most Deadly Jungle Fighters?’ p. 79.

was to undertake a fighting withdrawal'.⁹ What these battles made clear was that to successfully operate in the tropics, and to defeat a determined opponent, doctrine and training specific to the conditions encountered was a prerequisite.¹⁰ Until this happened, men would continue to be killed needlessly. Nevertheless, as the campaign unfolded lessons were learnt that were applied in later actions. At the conclusion of the Beachhead battles a large volume of reports appeared. These formed the basis of both the training undertaken on the Atherton Tablelands in 1943, and also the first Australian created training manuals, *MTP No. 23 – Jungle Warfare*.

As Chapter five highlighted, by late 1942 LHQ had come to the same realisation as the soldiers on the ground – that until changes were made – the Australian Army would continue to suffer unacceptable losses. The first concrete step was the establishment of the Jungle Warfare Training Centre. By early 1944, Canungra would accommodate over 6,000 trainees a month, meaning that all officers and men who henceforth arrived at the battlefield were prepared. Consequently, losses declined. The alteration in focus – to more adequately address the differences inherent in tropical conditions – of the LHQ Tactical School at Beenleigh, would also greatly assist in this aim. So too would the DMT improving the collection and dissemination of 'lessons learnt' material, both through their publications such as the *ATM*, *MTP No. 23* and *Tropical Warfare*, and the expansion of Jungle Warfare Training Teams.¹¹

By late 1943, the majority of the most important changes had occurred. The Ramu-Markham and Lae-Finschhafen Campaigns would witness the final important developments – infantry-tank co-operation and the better co-ordination of air and naval gunfire support. For the final campaigns the Australian Army was a well-trained, equipped and organised force. The fact that jungle warfare, notwithstanding these improvements, was frequently reduced to small bands of soldiers on lonely,

⁹ Ibid.

¹⁰ As chapter five argued, the reaction to the first encounters with the Japanese was a story of contradictions. On the one hand firepower was reduced to an extent that the Australians could not compete on an equal footing with the Japanese and their mountain guns and HMGs. Conversely, tactics from the desert and Syria were applied with no alteration. Training in Papua prior to August 1942 would have demonstrated that changes would need to be adopted.

¹¹ AWM54, 945/1/5, 'First Aust Army Training Instruction No 53 Mobile Training Teams and Detachments', 30 April 1945. (As this document lists, the number of training teams had increased dramatically over the period 1943-45.)

dangerous patrols, does not diminish the scale of the transformation undertaken by the Australian Army over the years from 1941 to 1945.

Nor is it reduced in significance when placed alongside the examples of armies failing the test of institutional learning as referred to at the beginning of this study: the failure of Napoleon's legions during the Peninsula Campaign to overcome the Spanish guerrillas and the US Army's inability to adjust its doctrine and tactics to wage a successful counter-insurgency war in the jungles of South-East Asia. Although markedly different theatres of operation, against very different opponents, the comparison is valid. Each saw an experienced, powerful and previously successful army confronted by a hitherto unforeseen challenge. All three, at least initially, were confounded by their opponents and struggled to defeat them. The French would eventually resort to brutal reprisals against the civilian population in a doomed attempt to defeat their elusive guerrilla opponents, while the US Army would continue its focus on the application of overwhelming firepower and attempt to force their enemy to a single, decisive battle. Neither would succeed.

The least powerful and arguably least likely of the three, the Australian Army, also began a completely new type of campaign with defeat. This occurred firstly in Malaya and then by being pushed back over the Kokoda Track, to almost within sight of Port Moresby. Gradually the tide was turned, due to a combination of the extraordinary bravery of 7th Division and several militia units, and by the logistical over-reach of the Japanese.¹² The year between August 1942 and August 1943 saw transformation sweep through the Australian Army. New weapons, uniforms, equipment, war establishments and – most critically – doctrine and tactics were introduced. With the exception of infantry-armour cooperation and the better coordination of air and naval support, there was little innovation in the last two years of the war. The necessary changes had been implemented. An army that had appeared unable to adjust to the new and confronting terrain and opponent between December 1941 and September 1942 had, by late 1943 become the chief exponent of operations in the tropics. As discussed at the outset, how the Australian Army made this successful transition, where others have failed, therefore provides a valuable case

¹² The battle on Guadalcanal also played a significant part, especially in diverting sorely needed air support that the Japanese in New Guinea were then not able to utilise.

study in institutional learning of the most difficult kind – in defence of the nation during wartime.

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