DEPLOY, SUSTAIN, RETURN

AUSTRALIAN LOGISTICS AND THE WAR IN IRAQ

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EXPLANATORY NOTE

This book was commissioned in 2003. Its research and writing were carried out in that year and a completed draft was delivered in early 2004.

The original intention had been to prepare a work that was suitable for distribution to the public. This has proved not to be possible, and the work has spent a considerable period of time awaiting an investigation of its classification status and the identification of a suitable distribution method. This delayed the book's release until now.

The book is presented largely in its original form, as completed in early 2004. No attempt has been made to update it in light of the logistic challenges of the continuing operation in the Middle East Area of Operations (MEAO). A brief Afterword has been added to highlight some of the changes that have taken place.

As the original intention had been to make this work available to the public, it includes two chapters of introductory material—one on the nature of logistics and the other on the structure of the ADF's high command. These chapters have been retained. This is because there have been significant changes in ADF command arrangements since the work's initial drafting. Consequently, it might prove helpful for the reader to have a ready description of the force's organisation in 2003. Secondly, as the work is also aimed at non-logisticians, a brief overview of the nature and importance of support in the art of war might also be of use.

ABOUT THE AUTHOR

Dr Albert Palazzo is the Senior Research Fellow at the Australian Army's Land Warfare Studies Centre in Canberra. His PhD is from The Ohio State University and his BA and MA are from New York University. He has written widely on warfare in the modern age and on the Australian Army in particular. His many publications include: *Seeking Victory on the Western Front: The British Army and Chemical Warfare in World War I; The Australian Army: A History of its Organisation, 1901–2001; Defenders of Australia: The Third Australian Division; Battle for Crete; The Royal Australian Corps of Transport*; and *Australian Military Operations in Vietnam*. His next project is a study of the relevance of doctrine in the contemporary warfighting environment.

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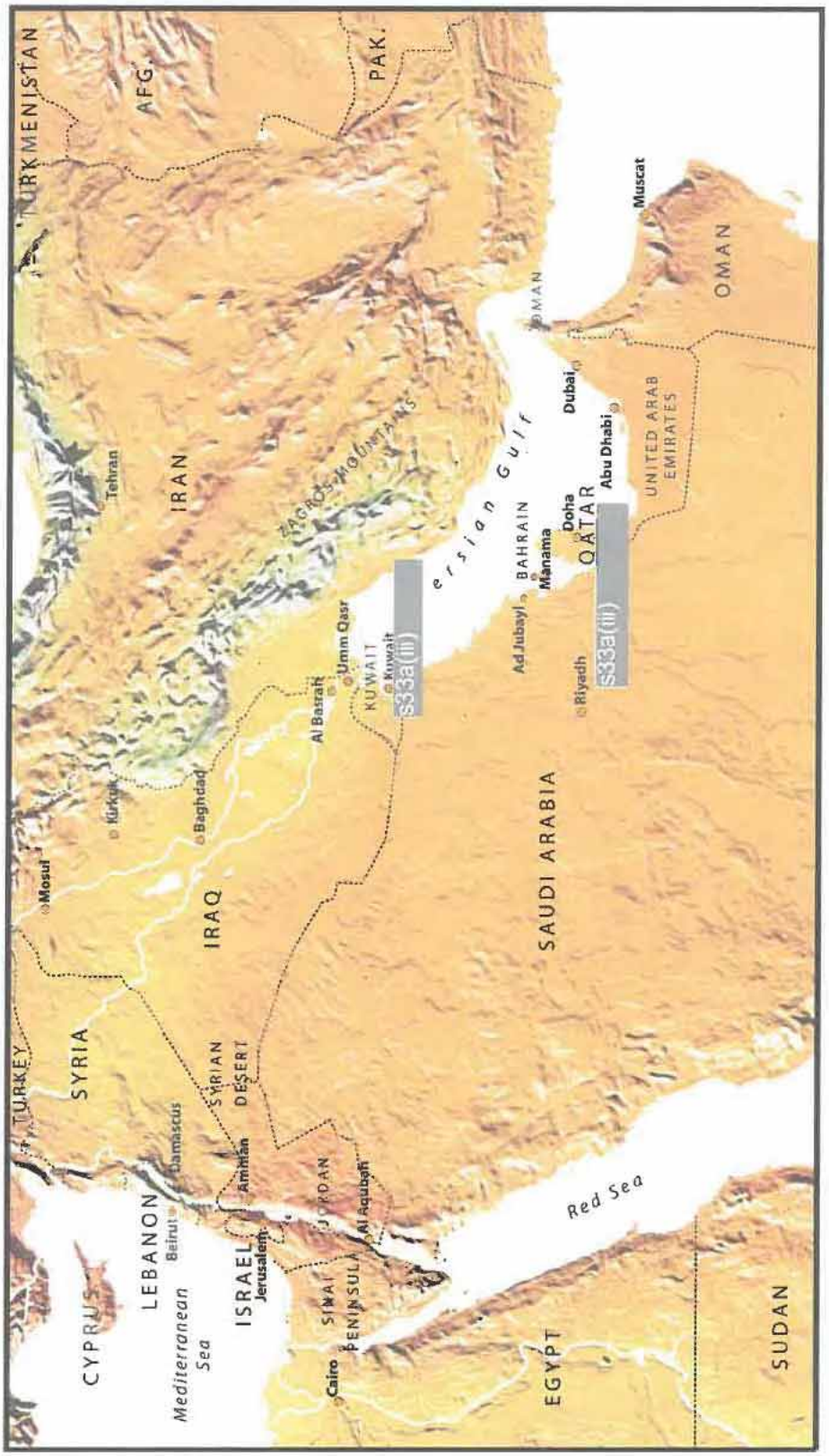

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List of Abbreviations

ADF	Australian Defence Force
AFPO	Australian Force Post Office
AMPS	ANZAC Maintenance Planning System
AQIS	Australian Quarantine and Inspection Service
CA	Chief of Army
CAF	Chief of Air Force
CDF	Chief of Defence Force
CDT-3	Clearance Diving Team – 3
COMAST	Commander Australian Theatre
CVS	Cargo Visibility System
DMO	Defence Material Organisation
ISB	Intermediate Support Base
JLC	Joint Logistic Command
JOD	Joint Operating District
LCM	Landing Craft Mechanised
LHD	Landing Helicopter Dock
LINDS	Lotus Notes Interim Demand System
LSE	Logistic Support Element
MEAO	Middle East Area of Operations
NATO	North Atlantic Treaty Organization
NBC	Nuclear/Biological/Chemical
RAAF	Royal Australian Air Force
RAN	Royal Australian Navy
RAR	Royal Australia Regiment
RN	Royal Navy
SAD	Ship Army Detachment
SASR	Special Air Service Regiment
SDSS	Standard Defence Supply System
SLIMS	Ship Logistic Information Management System
UK	United Kingdom
US	United States
USAF	United States Air Force
USCG	United States Coast Guard
USMC	United States Marine Corps
USN	United States Navy

INTRODUCTION

War divides into two interdependent spheres: the waging of battles and campaigns, and their administration. Typically, the former receives the greatest attention from scholars and military professionals. This work is one of the exceptions. Its concern is with the administration of war; to use a more common term, its 'logistics'. During the US-led war against Saddam Hussein's Iraq, the Coalition—composed of the military forces of the United States, the United Kingdom and Australia—displayed brilliant battlefield abilities as they overwhelmed a greatly inferior enemy. Less obvious was the work of a group of highly skilled military professionals, the logisticians, which underpinned every aspect of the Coalition's warfighting victory.

While the ADF contribution to the Coalition was relatively minor, especially when compared to the vast host of US, UK and Iraqi forces involved, it still represented Australia's largest non-peacekeeping mission since the end of the Vietnam War. By its nature, this book makes only passing reference to Australian combat operations. Their examination awaits a different study. Instead, this work is about the art of deploying and sustaining a force so that a commander has the ability to wage battle. Simply stated, commanders who lack an effective logistic capability cannot accomplish their missions. In fact, the very survival of a military force is at risk when a commander is an inattentive administrator. In Iraq, the ADF achieved its mission objectives and added another

chapter to its tradition of military success. That it could do so was the result of the efforts of a great number of unseen logistic specialists who plied a variety of support trades.

This is a work of two parts. The first three chapters (Part I) provide the foundation for understanding the ADF's logistic system. Chapter 1 outlines the theory of military logistics and its role in generating military effectiveness. It highlights the central position of the logistician and the risks a force takes when they ignore their support arrangements. Chapter 2 focuses on the ADF, its high command system and the structure of its logistic organisation. Chapter 3 outlines the Coalition's rationale for the Iraq War and discusses the basis of the Australian Government's decision to deploy and commit military forces.

Part II examines the conduct of Australian logistics in support of the war effort. The ADF's logistics doctrine suggests the structure for this section. It identifies logistics as the element which 'provides the resources that underpin combat power, positions those resources in the battlespace, sustains them throughout the execution of operations and redeploys and regenerates them.'[1] The definition breaks the task of the logistician into three distinct phases, namely:

1) Preparation and Deployment

2) Sustainment

3) Return to Australia

Each chapter in Part II focuses on one of these phases.

For many readers the war against Iraq is best known by the code name Operation *Iraqi Freedom*. This was the US designator for the liberation of Iraq. The ADF employed its own terms to distinguish between the conflict's planning and conduct, and divided the war into three periods, each with its own codename.

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[1] Commonwealth of Australia, Australian Defence Doctrine Publication 4.0 – *Defence Logistics*, Defence Publishing Service, 2003, p. 10.

Operation BASTILLE refers to the planning and deployment of forces, Operation FALCONER refers to the period of combat operations, and Operation CATALYST refers to the time when most of the deployed force returned home, as well as the Commonwealth's continuing contribution to the rebuilding of Iraq. This work will employ the Australian terms.

There exists a rough but imprecise correlation between the chapters of Part II and the three operational phases of Australia's participation in the war. They are:

Chapter 4: *Deployment* equates to Operation BASTILLE

Chapter 5: *Sustainment* equates to Operation FALCONER

Chapter 6: *Return to Australia* equates to Operation CATALYST.

There are exceptions to this correlation as the phases of support overlapped and were not divided by precise demarcations. For some units the sustainment phase commenced before other units completed the deployment phase. Thus, the phases of operations described in Part II must be seen as a continuum, with changes in emphasis rather than hard distinctions in mission tasks.

This book is a study of an ongoing operation and was written with some caution. There are issues that, for operational security reasons, remain beyond present consideration. This is not an attempt to mislead the reader, but rather the recognition that some aspects of the ADF's story require the passage of more time before they can be openly discussed. In addition, the book was researched and written in 2003 and no attempt has been made to update it in light of the Australia's continued commitment to the MEAO.

A brief word is required on the nature of the sources and their method of citation. This book draws heavily on files that were in active use at the time of research. Since many of the

records employed remain under a security classification, no citations have been provided to identify them. The book includes references only for those materials that were in the public domain as of the end of 2003.

I owe a great debt to many individuals who made the writing of this book possible. They all have my thanks.

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CHAPTER 1

Logistics and the Art of War

In 326 BC, having completed the conquest of Afghanistan, Uzbekistan and the Indus Valley, Alexander the Great turned west to lead his army back to Mesopotamia. Starting in the lower Indus Valley, Alexander's route took him across the Gedrosian Desert (located in the Makran region of modern-day Pakistan), an obstacle that proved far more formidable and deadly than any human enemy he had faced.

Alexander was one of the most brilliant military commanders in history, and well deserves the praise that he has received. What has often been overlooked, however, is that his competence on the field of battle was matched by his brilliance as a military administrator—to use a more popular term, logistician. The vast extent of his empire owed as much to his skill as a quartermaster as it did to his ability as a warrior. Yet even Alexander, one of history's most able generals, would fall foul of logistics to such an extent that it would nearly cost him his entire army.

Alexander was well aware of the Gedrosian's hostile environment, and that its crossing represented a logistic challenge for a large force. The region was barren and there was no opportunity to re-provision *en route*. Moreover, due to the distance to be traversed, the soldiers and their dependents would consume all of the supplies they carried long before again reaching fertile lands. Before departing from India, Alexander made extensive preparations for the army's

resupply. The key element was a fleet of 2000 vessels. Alexander intended to march along the coast and periodically draw stores from the ships.

Adverse monsoonal winds prevented the fleet's sailing from Karachi, leaving the army at the mercy of an inhospitable terrain. After the ships failed to make contact, Alexander revised his plan. He chose not to return to the Indus because the army had already denuded the land of supplies along its march route. Nor could a force of such size remain in one place for any length of time without exhausting local resources. Alexander had only one option, to move on and risk the desert. The most difficult section was the crossing of Kolwa Depression. The lack of food, fodder and water, combined with searing heat and burning sand, took an immense toll. When Alexander left India his army numbered approximately 105 000 soldiers and 52 000 followers. Of these, 75 per cent would perish. The Gedrosian Desert came closer to defeating Alexander than any of his human opponents. A historian of classical age logistics has rightly described this episode as one of the greatest crises of Alexander's life.[2]

The incident highlights the timelessness and importance of logistics and the great risks military organisations take when they fail to give this subject proper attention, or, as happened to Alexander, when the best-laid plans go wrong. If the fate of Alexander's army was extreme, it is by no means unique. The historical record contains numerous examples of disasters, or near disasters, that occurred when military organisations received inadequate support. Drawn from the modern period, several further examples of the consequences of administrative short-sightedness underscore the necessity

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[2] Donald W Engels, *Alexander the Great and the Logistics of the Macedonian Army*, University of California Press, Berkeley, 1978, pp. 110–118.

for a military organisation to pay close attention to its logistics:

- In 1812, the destruction of Napoleon's Grande Armée in Russia resulted not from battle but from the collapse of its line of communications. Only a small fraction of the French Army survived the campaign.
- In 1905, the Russian Baltic Fleet sailed from St. Petersburg on its journey to the Far East during the Russo–Japanese War. Poorly fitted out, and unable to refit *en route*, the fleet sailed to its destruction at the Battle of Tsushima in the Korean Strait. Of the thirty-eight vessels that began the voyage, only three reached the Russian port of Vladivostok.
- A major contribution to the defeat of Japan during the Second World War was the Allied campaign to isolate the enemy's home islands from the rest of its empire. Submarines and mine-laying planes cut the enemy's sea lines of communication so effectively that the Japanese were able neither to bring critical resources to their national support base nor to maintain their overseas garrisons.
- Closer to home, the extraordinary hardships suffered by Australian soldiers in the mountains of New Guinea, especially along the Kokoda Track in 1942 and around Wau in 1943, were due to the Australian Army's inability to provide its forward troops with an effective supply system that was suitable for operations in the tropics. Australia did prevail, but in part only because the Japanese logistic system was in an even more parlous state than its own.

While extreme, these examples underscore the point that, in war, logistic systems matter and commanders ignore them at their peril.

However, when a military organisation pays attention to its logistics, it does more than just prevent disaster. It enables

victory. The success with which a military organisation provides its forces with an appropriate supply system determines what is operationally achievable. A commander's plan will remain unrealised if its requirements exceed available support. In a very real sense it is logistics that allows a commander's plans to take place. The best way to make this point is to repeat the observation of an Australian soldier who stated that logistics was the difference between a 'bang' and a 'click' when he pulled the trigger of his rifle.

Clearly the realm of logistics and the logistician includes more than just the management of a depot, supply dump or base area. Rather, logistics articulates war at all its levels, from decisions on resource allocation and production, the course of battlefield maneuver, and to debates on national security. Several military theorists have captured the essence of the relationship between logistics and the conduct of war particularly well, and their words warrant repeating. Drawing upon his study of Alexander the Great, the British general and historian JFC Fuller concluded that logistics is 'the basis of strategy and tactics'.[3] Baron de Jomini, reflecting on his experiences as an aide in Napoleon's army, wrote that if strategy is the art of making war and tactics is the art of waging battle then logistics is 'the means and arrangements which work out the plans of strategy and tactics.'[4]

If skill at logistics was an essential component of generalship in the eras of Alexander and Napoleon, the growing complexity of contemporary combat further increases its importance in the planning and conduct of war. In his groundbreaking study, Lieutenant Colonel George C Thorpe (USMC) identified this trend. He explained that whereas the

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[3] JFC Fuller, *The Generalship of Alexander the Great*, Wordsworth Editions, Ware 1998, p. 52.

[4] Baron de Jomini, *The Art of War*, Greenwood Press, Westport, p. 62.

provision of supplies was important in earlier periods, the quantity and range of items a force required was relatively simple and, in most cases, generally obtainable from the local community. Therefore leaders had the freedom to focus most of their attention on strategic and tactical planning.[5]

Thorpe completed his book in 1917. Since then, the developments he identified have intensified. Today, most war matériel requires complex and technical manufacturing, and are required in such numbers as to prohibit their requisition from within the theatre of operations. Instead, logistic organisations gather and transport the needed stores and equipment from around the world. The items of largest bulk are no longer food and water but ammunition and petroleum products. Moreover, widespread mechanisation of military organisations has necessitated the raising of a large maintenance and repair infrastructure. Food and water remain essential commodities, but now represent a relatively minor strain on a force's line of communications.

In addition, the sustainment of a modern military organisation requires sophisticated management and professional oversight that cannot be provided in an *ad hoc* manner. Today, logisticians are highly trained individuals whose work is, or should be, an integral part of an operation's planning. If the trend towards increased complexity continues, it is likely that the logistician's importance will further increase.

Despite the central role of logistics in war, there is no agreed definition for the term by military professionals, theorists and scholars. This is not surprising. Each military organisation has a different approach, organisation and doctrine for the provision of its support. Moreover, ground, sea and air forces have their own interpretations of the subject, which adds further variation.

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[5] George C Thorpe, *Pure Logistics: The Science of War Preparation*, National Defence University Press, Washington DC, 1986, pp. 2–3.

An understanding of the essence of the term is all that is required for the scope of the logistician's responsibilities to become clear. The titles that various authors have given to books on the subject help to illuminate its meaning. These include: *Supplying War*[6], *Lifeblood of War*[7], *Feeding Mars*[8], and *The Neck of the Bottle*.[9] Jomini also provides insight into the nature of logistics. He believed that, in practical terms, logistics was the 'art of moving armies and keeping them supplied'.[10] It is difficult to fault his succinct interpretation as it captures the core features of the logistician's task and remit. It remains applicable to today's practitioners, despite its nineteenth-century origins.

It is perhaps appropriate to end this discussion with the words of a field commander who recognised that supply factors underpinned all his operational decisions. The British Army Field Marshal, Lord Wavell, wrote that:

> The more I have seen of war the more I realize how it all depends on administration and transportation. It takes little skill or imagination to see *where* you would like your army to be and *when*; it takes much knowledge and hard work to know where you can place your forces and whether you can maintain them there. A real knowledge of supply and movement factors must be the basis of every leader's plan; only then can he know how and when to take risks with those factors; and battles and wars are won only by taking risks.[11]

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[6] Martin van Creveld, *Supplying War: Logistics from Wallenstein to Patton*, Cambridge University Press, Cambridge, 1977.

[7] Julian Thompson, *Lifeblood of War: Logistics in Armed Conflict*, Brassey's, London, 1998.

[8] John A Lynn (ed.), *Feeding Mars: Logistics in Western Warfare from the Middle Ages to the Present*, Westview Press, Boulder, 1993.

[9] Phyllis A Zimmerman, *The Neck of the Bottle: George W. Goethals and the Reorganization of the U.S. Army Supply System, 1917–1918*, Texas A&M University Press, College Station, 1992.

[10] Jomini, *The Art of War*, p. 62.

[11] Viscount Wavell, *Speaking Generally; Broadcasts, Orders and Addresses in Time of War (1939–43)*, Macmillan, London, 1946, pp. 78–9.

CHAPTER 2

The Organisation of Australian Logistics

Introduction

Although logistics is an essential element of war, logisticians are not ultimately responsible for victory. The logistician's function is to support the combat force, and by successfully fulfilling this task enable them to defeat the enemy. Military organisations shape their logistic elements in ways which they believe can best assist the combat forces to fulfil their mission. Therefore, the ADF's logistic elements are organised and raised in order to meet the support requirements of an identified national defence capability.

Since the mission requirements of every nation's armed forces are different, there is little standardisation between the world's military logistic organisations. Even close allies, such as Australia, Britain and the United States, have different concepts and arrangements for the provision of support to their forces. In addition, military organisations are not, or at least should not be, static bodies. They must respond to advances in the art of war, as well as to changes in the national security situation and the vagaries of their budgets. Logistic elements are not exempt from such forces of change.

Over the course of its history the ADF, by responding to local priorities and requirements, has evolved a unique organisation for the provision of logistics. This organisation's

nature has had tremendous implications for how Australia supported its forces in the MEAO. Therefore, it is essential to outline the ADF's command and logistic organisation before this book can commence its examination of Australian logistics in the Iraq War during 2003.

The Higher Administration of the ADF

A study of this nature requires only a simplified overview of the ADF's logistic organisation, and only as it existed at the beginning of 2003. Despite this work's goal of simplicity, the ADF's logistic organisation is quite complex. In fact, no single system exists. Instead, it is a mesh of various focal points, support centres and converging lines of communication, all with varying degrees of integration and overlapping responsibilities. In the ADF the responsibility for logistics is shared amongst the three armed services, a variety of civilian defence agencies and overseas coalition partners, as well as domestic or foreign commercial contractors, consultants, suppliers and manufacturers. Moreover, the ADF allocates support at either the joint service or single service level, depending on mission requirements.

The starting point for any discussion of the ADF's logistic organisation is the overarching high command structure. This is because the chain of command, as exerted by the higher administration, shapes the context of the subordinate support organisation. Australia's senior officer and the commander of the ADF is the Chief of the Defence Force (CDF). During the Gulf War, the holder of this position was General Peter Cosgrove. His immediate subordinates are the three service chiefs (at the time Vice Admiral Chris Ritchie was Chief of Navy), Lieutenant General Peter Leahy was Chief of Army, and Air Marshal Angus Houston was Chief of Air Force). The three

service chiefs are responsible for the recruitment, training and administration of their respective services.

Cosgrove's primary focus, and the rationale for his Headquarters ADF, was strategic-level planning. In 2003, the conduct of operations was the responsibility of another subordinate, the Commander Australian Theatre (COMAST). At this time the COMAST was Rear Admiral Mark Bonser. Although the service chiefs command the units that make up their service, their function is to assure force readiness for operations. Command on operations was the purview of Bonser and Headquarters Australian Theatre. Clearly there is considerable overlap between the spheres of operations and administration; COMAST must coordinate his plans with the service chiefs, but it was Bonser who directed the Australian forces committed to the war.

The COMAST exerts his command through four force element headquarters. They are: Maritime Component Command, Land Component Command, Air Component Command, and Special Operations Component Command. Each subordinate headquarters is responsible for the conduct of operations in their respective environment. During the Gulf War only three of the component commands played a direct role. The exception was Land Component Command, which did not initially deploy any ground units. During the war, Army units that served in the MEAO did so as a part of Maritime Component Command or Special Operations Component Command.

Within the Department of Defence, the civilian-led area with major logistic responsibilities is the Defence Material Organisation (DMO). It is a relatively new creation, having only been formed in 2000 from a predecessor body called Support Command. It came about through a series of structural reforms that began in the mid-1980s. The government created DMO to

oversee the acquisition and life maintenance of all equipment programs belonging to the three services, a task they had previously undertaken themselves. DMO contains two divisions who have a focus on logistic support that is relevant to this study. They are Joint Logistic Command (JLC) and the Management Information System Division.

During 2003, JLC was one of the most important logistic agencies supporting the operation. Its mission is to 'provide designated logistic support to enable the ADF to train, fight and win.'[12] It fulfils this task by identifying the logistic requirements of the plans developed by Australian Defence Headquarters and Headquarters Australian Theatre. Its staff then plan and provide the necessary support.

While JLC is subordinate to DMO it is also responsive to the CDF. For the Iraq War, Cosgrove tasked it with responsibility for supporting the operation from the national support base and made the commander of JLC responsive to COMAST. The commander of JLC also wears a third hat. He serves as advisor to the CDF on strategic logistic issues. Major General Peter Haddad commanded JLC in 2003.

Located within the Management Information System Division is the Material Systems Branch. This office is responsible for the creation and implementation of the ADF's IT logistic management systems. Throughout 2003, units in the MEAO placed orders for stores via one of these systems. Once initiated, a supply demand became the responsibility of JLC up to the point of its satisfaction.

Chart 2.1 outlines the higher administration of the Australian Defence Force:

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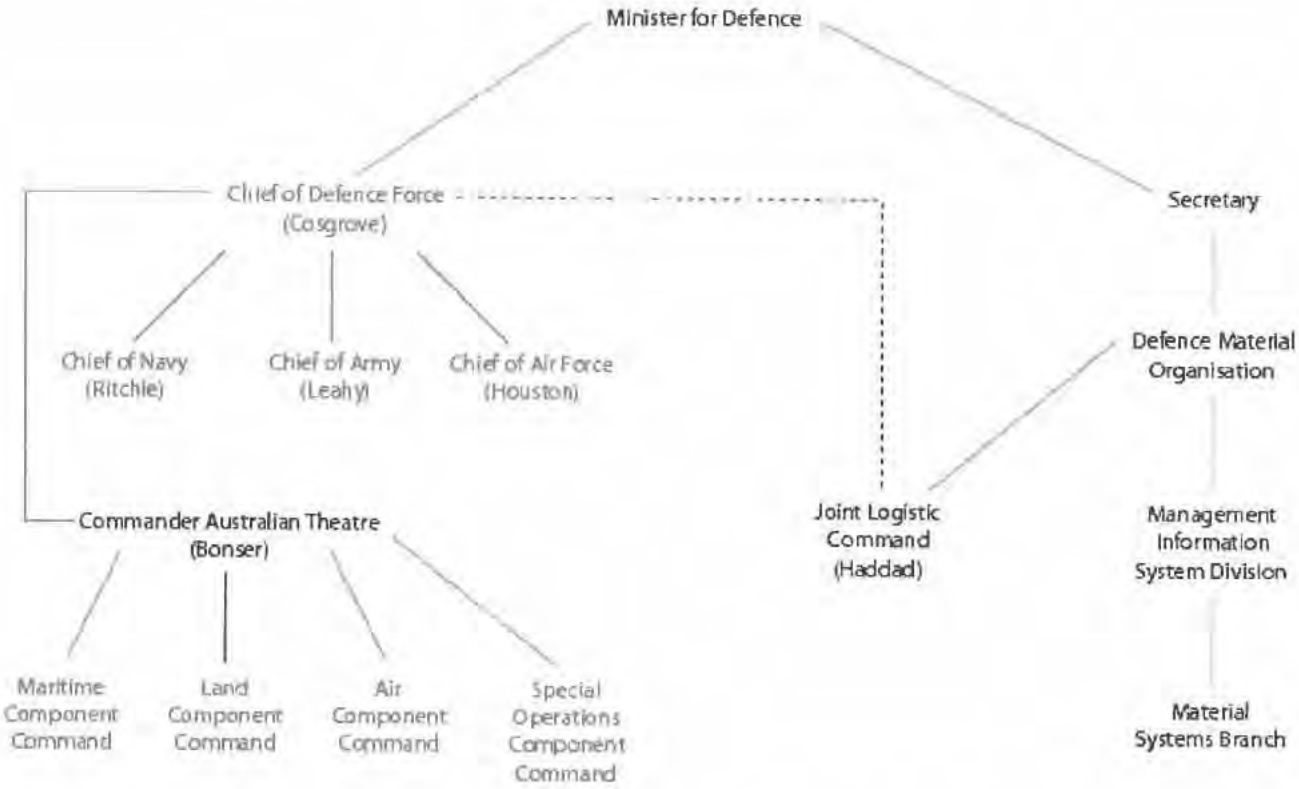
[12] *Joint Logistic Command Strategic Business Plan: FY2002–03*, p. 8.

CHART 2.1
Higher Administration of Australian Defence



Notes – Chart 2.1 has been simplified to show only those agencies that played a significant role in the provision of support during the Second Gulf War.

The Chain of Command during the Iraq War in 2003

When Australian planners began to investigate the country's potential involvement in a second US-led war against Iraq, one of the first issues they had to address was the level of command they would establish in the MEAO. In late 2002 the Australian Government established a national headquarters, the Australian National Headquarters – MEAO. Its first commander was Brigadier Maurie McNarn. Cosgrove did not give McNarn operational command authority over any of the units Australia deployed to the MEAO. Instead, the CDF limited the position's function to the conduct of national command. McNarn's primary task was to make sure that Coalition intentions were consistent with the Australian Government's expectations. This meant that it was McNarn's job to assure that Australian troops did not participate in any missions which might violate the Government's rules of engagement. McNarn also served as Cosgrove's strategic advisor in the MEAO.

Command authority over Australian forces remained with Bonser at Headquarters Australian Theatre. It was up to him, subject to Cosgrove's approval, to determine the manner in which Australia would exert command and control. His staff had considered several possibilities before deciding to operate along four component lines, each representing one of the Australian Task Groups. Bonser chose this model because it met the operational realities. Australia did not have a specific geographic operational area. Rather, each component deployed to a different locale, widely separated from each other. The

s33(a)(i) and (iii)

s33a(ii) and (iii)

s33a(ii) and (iii) The Australian components easily fit into this structure, attaching themselves to the relevant Coalition component command.

Reinforcing Bonser's decision was the fact that Australia did not deploy a fully functional field force. Instead, the Government provided niche capabilities sought by s33a(ii) and (iii) s33a(ii) and (iii) and the Australians received their mission orders from the s33a(ii) and (iii) to which they were attached. Bonser believed that s33a(ii) s33a(ii) s33a(ii) Such a step might have hindered liaison between US and Australian field commanders and created another command layer that would have slowed down decision-making and tasking. Bonser retained operational command, but did so from Sydney. Table 2.1 outlines the component command structure that Bonser implemented. Each component is identified by a Task Group number:

Table 2.1—Australian Task Group Structure

Task Group	Component
s33a(ii)	Australian National Headquarters
	Maritime Component
	Maritime Patrol Aircraft Component
	Special Forces Component
	Air Component

In choosing to command along component lines, however, Bonser rejected other possibilities that offered different options to the ADF. Among those passed over was the

deployment of a joint headquarters into the MEAO. This would have been a forward headquarters drawn from his staff at Headquarters Australian Theatre. The decision not to raise a joint headquarters was curious, especially since it violated a growing body of ADF doctrine. The absence of an in-theatre joint headquarters also had considerable ramifications for the provision of logistic support to the deployed forces.

The ADF has stressed the importance of joint operations since the mid-1980s, and the need for the three services to integrate their operations. Progress has been slow. Historically, the Navy, Army and Air Force have had little to do with each other. The traditional pattern has been for each of the Australian services to work directly with the equivalent service of a larger ally. The goal of jointness was to overcome the gulf between the three services, to maximise combat power and to develop the ability for the entire ADF to work together as an effective team. The Iraq War was the first opportunity that the services have had to wage war on a joint level since the articulation of this goal.

Headquarters Australian Theatre, on the surface, does appear to be a joint headquarters; in reality it acts more like a personal staff for COMAST. It is at the next level down, the four component command headquarters, through which Bonser exerted his operational control. By this point, however, command and control has fractured into four separate chains of command, making jointness difficult. By commanding along component lines the ADF reverted to type, and each of the task groups integrated their actions with a senior US partner.

The lack of a joint Australian deployed headquarters did have a negative effect on the provision of support in the theatre of operations. The main problem was the difficulty in communicating between the four components, five including the national headquarters. It was far easier for the staff of the

component headquarters to communicate with Headquarters Australian Theatre in Sydney than with the other components in the MEAO. For example, the hardest unit to sustain was the Navy's Clearance Diving Team – 3 (CDT-3). The responsibility for its support belonged to the Maritime Task Group. However, the Navy had difficulty supporting what had essentially become s33a(ii) Near the divers' operating area was the s33a(ii) s33a(ii) Its staff was well placed to support the s33a(ii) but direct communication was not possible due to the different lines of communication. All requests from CDT-3 for support from the s33a(ii) had to pass up the maritime chain of command to Maritime Component Command in Sydney before passing down the s33a(ii) line of communication to the s33a(ii) for action.

The absence of a joint headquarters in the MEAO also meant that Australia did not deploy a joint logistic headquarters. This meant that inefficiencies in the provision of logistics were unavoidable. For example, the deployment required five separate movement detachments instead of just one. It also proved difficult to share skilled tradesmen across component lines. By default, McNarn's national headquarters had to take on a logistic liaison role between the component headquarters, a job for which it had not been staffed. For example, one of the tasks it had to take on was the cross leveling of stores between the components.

The Organisation of Logistics in the MEAO

While the ADF's multi-command organisation is undeniably overly complex, especially for an institution of its size, logisticians do have resort to an intellectual framework that creates points of common understanding, and divides the provision of support into more manageable pieces. It also gives

logisticians a common shared language for working in diverse environments. When providing operational support, logisticians usually envisage a line of communication as running from the national support base all the way to the end user in the theatre of operations. This path is divided into a series of levels or phases, typically four. This practice is common in western military organisations, and while initially conceptualised for ground operations, logisticians have adapted it for use by naval and air forces.

Originally supply officers used the numbers one to four to identify the levels. Although still recognised, this practice has fallen partially into disuse. Instead of numbers the ADF employs descriptive terms. The levels describe distinct zones on a line of communications. It would be tempting to observe that the distinction between the levels is a function of distance or geography. However, this is not true. Instead, the difference is determined by the particular type of support provided. Table 2.2 outlines the levels of supply.

Table 2.2—Levels of Supply

Line	Terms	Function
s33a(ii)		User of Supply
		Formation Zone of Supply
		Theatre Zone of Supply
		Source of Supply

Separate entities with specialised organisations and establishments maintained each of the links in Australia's line of communication from the national support base to the MEAO. For example, the s33a(ii) f the line of communication s33a(ii) s33a(ii) This link was under the control of JLC. s33a(ii)

s33a(i)

s33a(i) The line of communication ran in both directions with personnel, equipment and stores transiting between Australia and the MEAO and back as required.

JLC accomplishes its tasks through a number of subordinate departments. The ones that were most relevant for the Iraq War were: an operations staff, a planning staff, a nationwide network of warehouses, the Joint Fuels and Lubricants Agency for the provision of petroleum products, and the Joint Ammunition Logistics Organisation for the supply of all explosive ordnance materials. s33a(i)

s33a(i)

For the Iraq War, the CDF gave the commander of JLC responsibility for the management of the line of communication from within Australia up to the agreed handover point. Cosgrove ordered Bonser and Haddad to mutually agree on its location. In fact, there was more than one handover point depending upon the component command under support. At

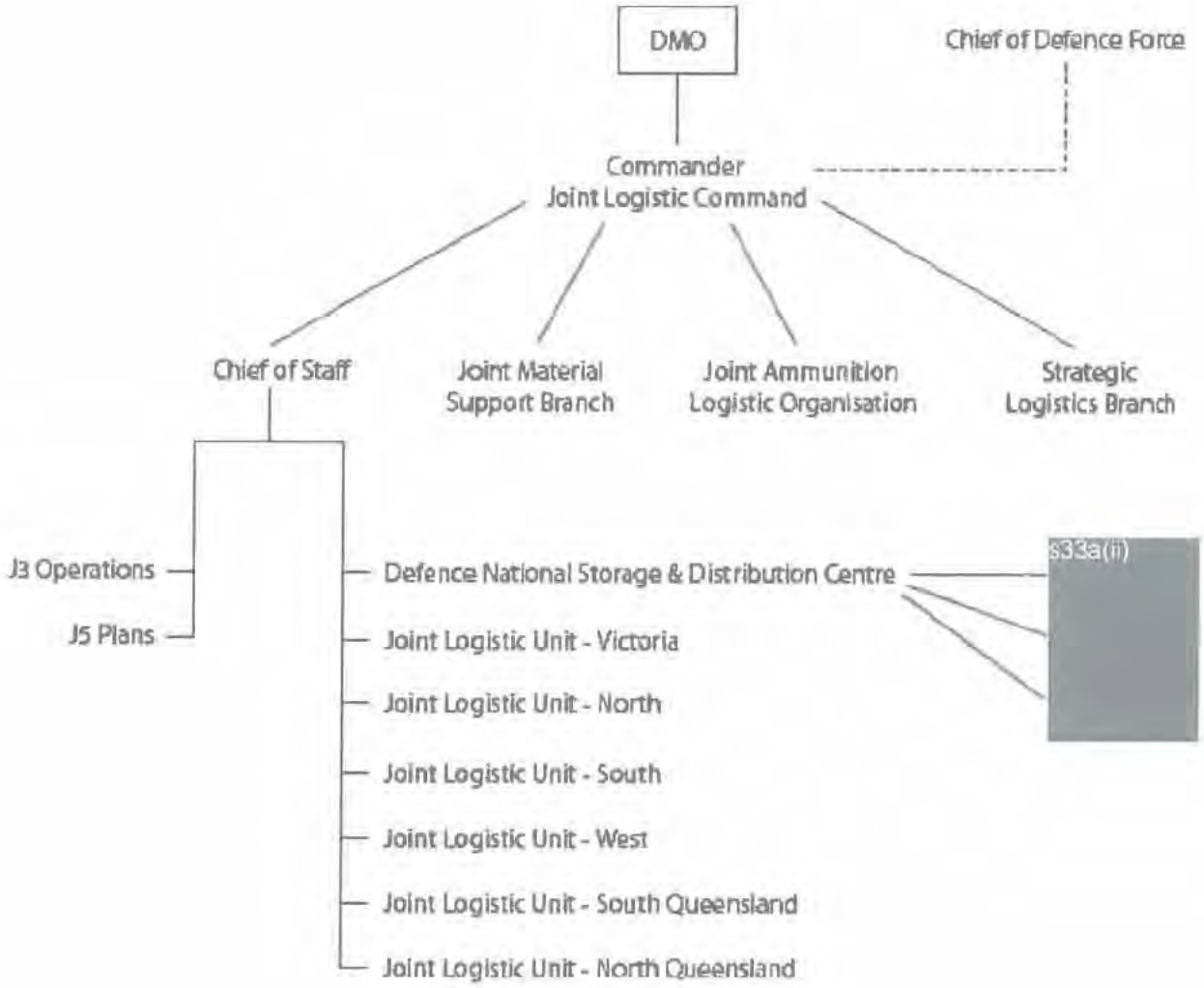
these handover points, responsibility for the supply chain passed from JLC to the relevant component command's s33a(i) element. Therefore, for the Iraq War, JLC's job was to marshal the required stores from within Australia, or elsewhere in the world when necessary, and transport them to the MEAO. Furthermore, JLC had oversight over the transport of personnel.

JLC also contains a Strategic Logistic Branch whose function is to provide technical logistic information to Headquarters ADF for long-term planning. The commander of JLC is also a member of the Strategic Operations Division and serves as logistic advisor to the CDF. Chart 2.2 (overleaf) outlines the organisation of JLC.

To help JLC fulfill its tasks, Bonser allocated to Haddad two additional organisations: 1 Joint Movements Group and the RAAF's 1 Air Terminal Squadron. 1 Air Terminal Squadron contains personnel trained in the use of mechanical handling equipment and is responsible for the loading and unloading of aircraft. Their main concentration was at RAAF Bases s33a(i) where they loaded cargo destined for the MEAO and met returning aircraft.

In any operation 1 Joint Movements Group will be one of the most critical logistic agencies involved. Movements is an arcane but vitally important military activity. It is the movers' task to make sure that a commander has the required forces at the desired place at the requested time. Once a force is deployed, movers arrange for its resupply during the sustainment phase, and extract the force at an operation's completion. For the Iraq War, 1st Joint Movements Group was responsible for arranging all aspects of the transport of the personnel, equipment and stores deployed to the MEAO and for their return to Australia. They touched upon every aspect of the operation.

CHART 2.2
Organisation of Joint Logistic Command



Parallel to JLC's warehouse and distribution system was a similar organisation operated by the RAAF. When Defence formed the Defence Material Organisation, the RAAF handed over to the new organisation's Aerospace Division all of its acquisition duties, but only some of its item storage responsibilities. Unlike the other two services, the RAAF retained most of its routine material storage, and all of its repairable-item warehouse and maintenance capability. It also provided the staffing for this organisation s33a(ii) s33a(ii)

Each of the component commands fielded their own logistic units to control their s33a(ii) level of support. The RAN has maintained a unit s33a(ii) , called the Logistic Support Element (LSE), since s33a(ii) Its function is to support RAN warships operating in the Persian Gulf. These deployments were to assist in the enforcement of UN sanctions against Iraq, or, more recently, as a part of Australia's contribution to Operation SLIPPER. In mid-December 2002, the LSE became a part of the Maritime Task Group and its mission became the support of the ships deployed under Operation BASTILLE s33a(ii) s33a(ii)

The interpretation of a maritime line of communication as levels of support is difficult due to the unique nature of naval support. Warships leave port with most of the stores they require onboard. Thus, a ship provides for its own s33a(ii) s33a(ii) If necessary, ships can also replenish at sea from other vessels. It is in this latter role that the HMAS *Kanimbla* performed one of its most useful functions in the North Arabian Gulf. *Kanimbla* served as a resupply platform for the vessels of its Task Group. These

included two RAN frigates, HMAS *Darwin* and HMAS *Anzac*, as well as a host of US and British vessels, and the *Kontradmiral Xavier Czernicki*, a Polish minesweeper support ship. *Kanimbla* also sustained a flotilla of rigid-hull inflatable boats (whose crews lived on board), provided refuel for Coalition helicopters, and temporary accommodation for prisoners of war. In this capacity it provided a 2nd/3rd level of support services to the Maritime Task Group.

Before the onset of Operation BASTILLE, the Special Operations Component Command also had s33a(ii) making it of much more recent origin than the Navy's LSE. its original function was to receive stores from Australia for onward After Australia's withdrawal of ground forces from Afghanistan, the When the SAS soldiers returned to Perth, their vehicles, equipment and rations went of the compound at the nearby acilitated the re-deployment of the SASR to the region for Operation BASTILLE.

The did not directly support the special forces in the field. Once the Special Operations Component Command established its Forward Operations Base the role declined, although its importance again came to the fore during Operation CATALYST, the return to Australia. In order to support the field elements, Special Operations Component Command raised an *ad hoc* Combat Service Support Group. It had an establishment of and the rest from across the gamut of Army trades. It consisted of a Headquarters and the following detachments: Computer Information Systems,

Workshop, Trade (Carpentry & Plumbing), Medical, Transport, Movements, Air Dispatch, Postal, Terminal, Catering, Stores, and Ammunition Technicians.

The Combat Service Support Group operated from the special force's Forward Base. Its function was to maintain the base and provide support to the special forces patrols operating in Western Iraq. Therefore, it acted as a s33a(ii) of support unit. When established, the Special Operations Component Command gave the unit the s33a(ii) s33a(ii) keep up with the advance into Iraq. If this had happened the Combat Service Support Group would have become a s33a(ii) support unit and the forward team would have had responsibility for s33a(ii) support. The enemy's rapid collapse obviated the need for this action.

The RAAF's s33a(ii) support consisted of elements drawn from its three Expeditionary Combat Support Squadrons. Each of the RAAF's deployments had its own support squadron. The Expeditionary Combat Support Squadron and its associated aircraft element were:

- s33a(ii) – APC-3
- – F/A-18
- – C-130

The purpose of an Expeditionary Combat Support Squadron was the setting up, running and defence of an airfield. They thus relieved the flying squadrons of much of the labour of managing an airfield, allowing them to concentrate on missions. Since the RAAF's aircraft were deploying to fully operational air fields, the support squadrons did not have to bring their full capability. For example, they left behind their security detachments since base defence was a s33a(ii)

Each of the component commands' s33a(ii) support units tended to support elements of their own line of communication, but was available to assist the other components if needed. This was not generally feasible due to the distances that separated the five task groups. One exception, however, was the support provided to CDT-3. The divers operated ashore s33a(iii) s33a(iii) While its line of communication ran through the *Kanimbla*, it also received support from s33a(ii) s33a(ii)

McNarn's national headquarters did not have a dedicated s33a(ii) of support unit. Instead, it received its support from the US base from which it operated. It also received Australian-specific stores directly from the national support base via JLC.

In issuing his requirements for Australia's participation in the conflict, the CDF insisted that the component commands minimise their in-theatre logistic footprint. This policy had several benefits. It eased the strain on Australia's 7000-kilometer line of communication, reduced wastage, reduced the number of support staff required in-theatre (thereby allowing greater contribution from the combat elements), and limited the operation's overall cost by lowering expenditure on aircraft charters. It would also ease the force's return to Australia since there would be fewer personnel and stores to bring home.

In all of the wars it has fought, Australia has depended on a senior partner for much of its logistic support. During the First World War, the British integrated the Australians into their lines of communication, and provided the diggers with most of their transport, rations, fodder, ammunition and engineering stores. In the Second World War, Australian troops again received much of their support from UK and US sources. This remained the pattern in the Iraq War.

Australia has a standing agreement with the US Pacific Command for mutual logistic support. Whenever Australian forces participate in an exercise with elements of Pacific Command, such as at a Crocodile Exercise, the two forces have procedures in place for the sharing of supplies, the types of support available, and a cost recovery method. Military organisations term these agreements an s33a(ii) s33a(ii) In late 2002 Australia took the precautionary step of formally establishing a s33a(ii) s33a(ii) This was believed necessary because s33a(ii) staff was reluctant to apply a s33a(ii) In January and March 2003, Australia activated further s33a(ii) s33a(ii)

All of these arrangements required s33a(ii) s33a(ii) s33a(ii) would take place.

To provide further logistic options, JLC negotiated contracts with commercial suppliers. The key company in the MEAO was Inchcape Shipping Services, a stevedoring and logistic company with long experience in the region. In addition, the component commands had authority to access support from local contractors and host-nation channels. Apart from basing rights, however, host-nation sources did not prove particularly useful. The relatively small economies of the region were unable to meet the great surge in demand that resulted from the arrival of the Coalition's forces. Table 2.3 (overleaf) identifies most supply categories and their preferred sources:

Table 2.3—Preferred Supply Sources

Supply Type	Sources		
	Australian	*Coalition*	*Commercial*
s33a(ii)	√	√	√
	√	√	√
		√	√
		√	
	√	√	√
		√	
	√	√	
	√ (level 1)	√ (levels 2, 3 & 4)	
	√	√	
		√	
	√		
		√	√
	√		
	√	√	

When two or three sources could provide the same support, field commanders were to s33a(ii) s33a(ii) Headquarters Australian Theatre's support plan outlined the source priorities. They were:

- in-theatre commercial
- Coalition partners
- Coalition-arranged contractor
- host-nation support
- the Australian national support base

The support arrangements covered the full range of services, not just materials. Component commanders could contract for needs such as base administration, including office cleaning, sanitation removal, and power supply; cooked meals at

Coalition messes; medical services; and engineering support such as the hiring of tradespeople.

In actuality, the national support base was the supporter of last resort. Field commanders understood that if an item was obtainable from a Coalition partner or a Gulf contractor, then they should pursue those sources and not request these materials from Australia. Ideally, the national support base was to provide Australian-specific items. Bulky commodity items, especially rations, fuel and common ammunition, were to come from Persian Gulf sources whenever possible. This plan had a fiscal component. Air transport is expensive. If the ADF could reduce its transport requirements it would need to charter fewer aircraft.

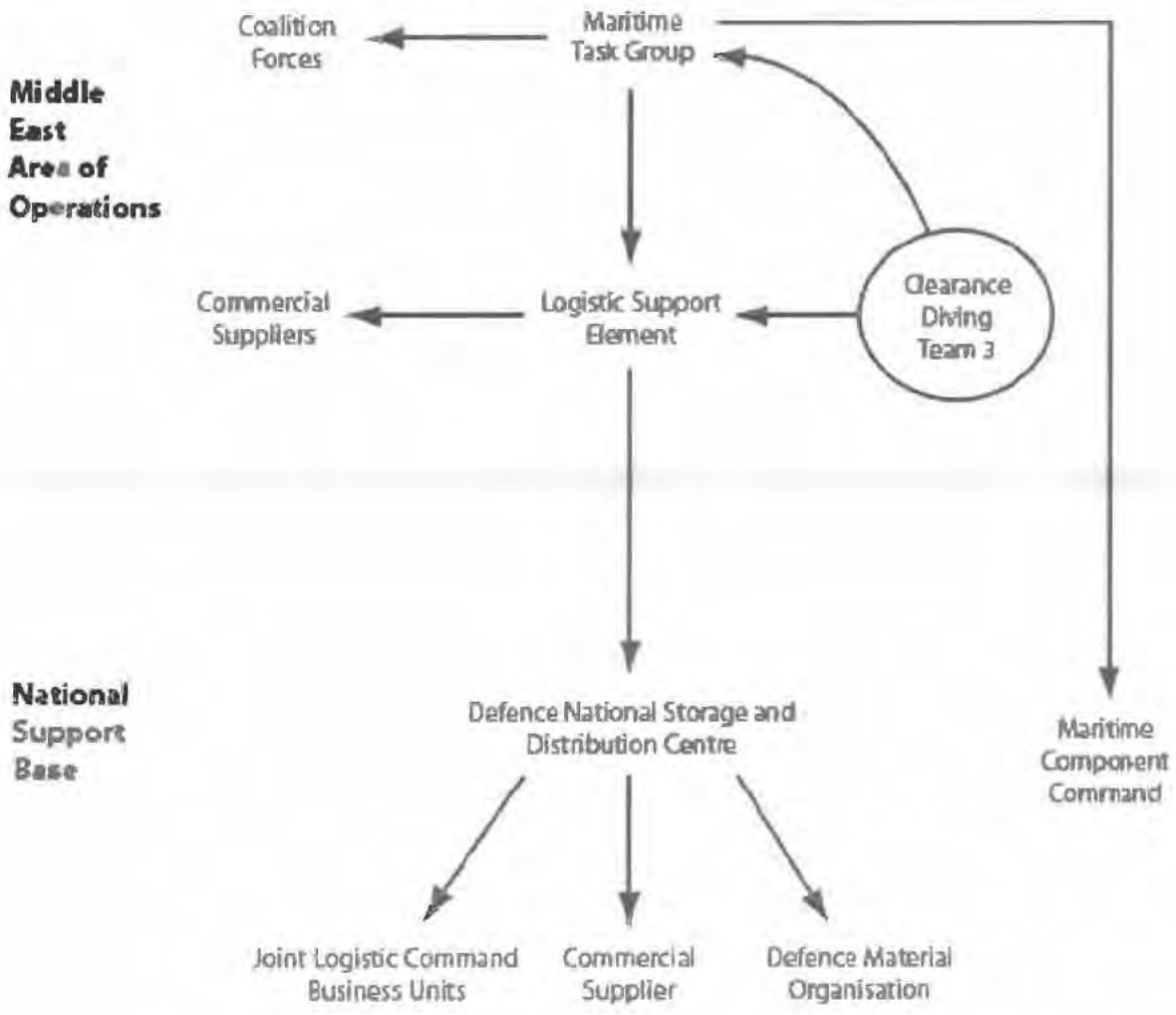
As this overview shows, the component commands had a multitude of sources for the meeting of their support needs. Charts 2.3A, 2.3B, 2.3C outline the logistic sources for the Maritime Task Group, s.33a(i) and the two Air Task Groups:

CHART 2.3A

Logistic Sources

Maritime Task Group

s33a(i)



~~SECRET AUSTEO~~

CHART 2.3B
Logistic Sources
Special Operations Task Group
s33a(ii)

s33a(ii)

Middle East Area of Operations

National Support Base

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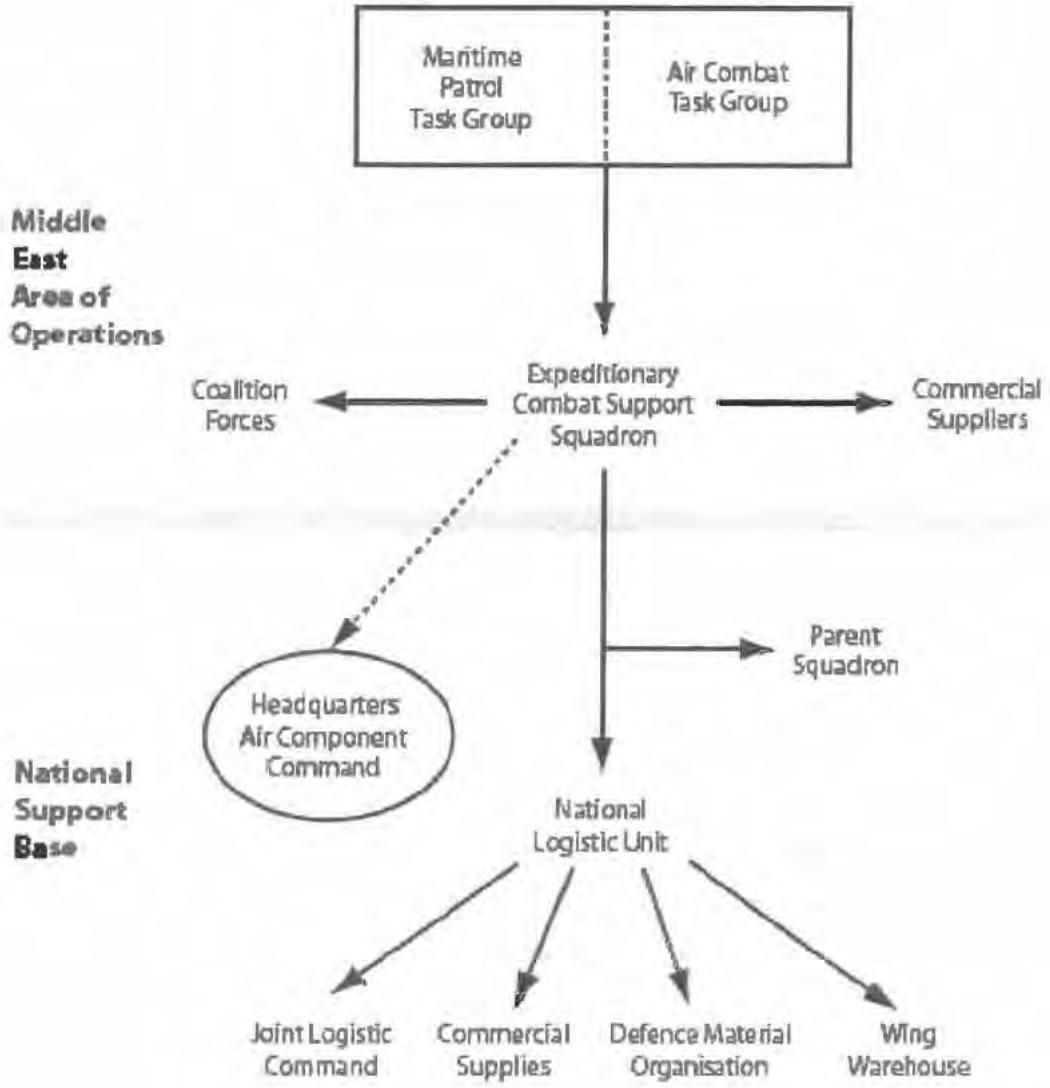
CHART 2.3C
Logistic Sources
Air Task Groups
s33a(iii)



Conclusion

The ADF's support plan offered the task groups a flexible and varied means to provide for their logistic needs. This had advantages and liabilities. At the strategic level, the CDF mandated that Australia establish the minimum possible logistic footprint. This reduced the number of personnel and stores that Australia deployed. However, at the operational and tactical levels, the plan's advantages were less noticeable. It reinforced the force's dependency on other nations for critical support requirements. The absence of an in-theatre joint headquarters also compromised the advancement of 'jointness', which the US demonstrated is central to the waging of contemporary war.

Another inherent problem with the support plan was its complexity. Logistics is a factor in a unit's operational and administrative spheres; coordination between the two chains of command is thus imperative. In the Iraq War, the ADF kept these spheres separate. In fact, responsibility for operational and administrative logistics does not unite under a single office until it reaches the CDF.

What is also clear from the logistic arrangements that the ADF implemented is that logisticians require a change of image. It is no longer appropriate to imagine the logistician as pushing forward from the rear a regular and predictable flow of supplies. Instead, demand drove logistic policy, and logisticians had to respond to the varying needs of the end-user. In a sense, as was already the case for the combat commander, the logistician's task has become more chaotic.

CHAPTER 3

The Decision for War

Decapitation

Just before dawn on 20 March 2003, two USAF F-117 Nighthawks, flying undetected above Baghdad, released four precision-guided 2000-pound bombs. Their target was the Iraqi leader, Saddam Hussein, and his two sons Uday and Qusay. s33a(ii) and (iii) The bombs struck their target with pinpoint accuracy, reducing the structure to rubble. It is not known s33a(ii) and (iii) s33a(ii) and (iii) or if Hussein and his sons had only just left, but the bombs missed their quarry.

The following day, Coalition ground forces launched the invasion that would take them to Baghdad and result in the overthrowing of Hussein's Baath Party dictatorship. At the same time, Coalition aircraft struck Iraqi air defence positions and began the destruction of the enemy's command and control network. Coalition warships also added their aircraft, missiles and gunfire to the fray. Even before the ground offensive's beginning, special forces elements slipped over the border by vehicle and helicopter. They penetrated deeply into enemy territory, pre-positioning themselves for the commencement of hostilities.

The attempt to kill Hussein and his sons marked the start of a second US-led war against Iraq. Australia found itself at war in coalition with the United States and the United Kingdom

in an attempt to depose one of the world's most repressive and undemocratic regimes. The war would last only a few weeks before the Coalition destroyed the Iraqi Army in an overwhelming display of military effectiveness, occupied the country's cities and towns, and swept away all institutions of Hussein rule. On 14 April, the British Prime Minister, Tony Blair, declared victory in a speech to the House of Commons[13], and the President of the United States, George W Bush, brought to an end the major combat phase of the conflict.

At the time of writing, fighting continues in Iraq, particularly in Baghdad and nearby cities and provinces. Attacks are directed at both Coalition forces and Iraqi civilians. The death toll continues to mount, and an end to the violence remains elusive.

The Case for War

The US attack was not a surprise. It was preceded by a massive military build-up and increasingly threatening and uncompromising language from US officials. The war of words reached its peak on 18 March when Bush gave Hussein a forty-eight hour deadline to leave Iraq. The US goal had become clear and uncompromising, nothing less than the removal of Hussein and his Baath Party inner circle from the leadership of Iraq. Barring Hussein's complete and unlikely capitulation, the only unknown factor was the exact time and manner of the conflict's commencement.

Following the start of hostilities, the Prime Minister of Australia gave an address to the nation. In it, John Howard committed Australian forces to the conflict under the direction

[13] Michael Codner, 'An Initial Assessment of the Combat Phase', in Jonathan Eyal (ed.), *War In Iraq: Combat and Consequence*, The Royal United Service Institute for Defence and Security Studies, London, 2003, p. 16.

of the US-led coalition.[14] While carefully considered, his announcement was only the latest demonstration of the Government's belief that the foundation of Australian security was national interests, not just physical territory. Since gaining office in 1996, the Howard Government had repeatedly sought a more robust engagement in the region, displayed a greater willingness to employ military force, and joined coalitions to enforce collective security measures. In June 2001, the Minister for Defence, Senator Robert Hill, observed that the 'defence of Australia and its interests does not stop at the edge of the air-sea gap.' Moreover, he anticipated that the ADF would be more likely to be deployed well beyond the nation's borders.[15]

In committing to the war, Howard identified his reasons: 'it is right, it is lawful, and it's in Australia's national interest'.[16] He saw the Commonwealth's participation as another link in the international fight against terrorism. He pointed out that Iraq was a sponsor of international terrorism, and that since terrorists knew no borders, Australia was a potential target. In October 2001, in a speech to the Australia Defence Association, he asserted that the 'threat of international terrorism hangs over each of our countries – it is only right that the risk and the cost for its eradication be shared.'[17]

Howard also considered the danger from weapons of mass destruction in his speech. The Iraqi regime had a history of using chemical weapons against its own people, as well as

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[14] 'Transcript of the Prime Minister, The Honourable John Howard MP - Address to the Nation', 20 March 2003.

[15] Quoted in Alan Ryan, *Australian Army Cooperation with the Land Forces of the United States: Problems of the Junior Partner*, Land Warfare Studies Centre, Canberra, 2003, pp. 5–6.

[16] 'Transcript of the Prime Minister, The Honourable John Howard MP - Address to the Nation', 20 March 2003.

[17] Quoted in Ryan, *Australian Army Cooperation with the Land Forces of the United States*, p. 7.

Iranian soldiers during the 1980–1988 war with its neighbour. After the conclusion of the 1991 Gulf War, investigators found considerable evidence in Iraq of an advanced program for the development and militarisation of biological and chemical weapons. Iraq had also made clear its desire to develop nuclear weapons. Moreover, in the years leading up to the 2003 conflict, Iraqi officials had gone to great lengths to hinder or prevent UN inspectors from carrying out their work.[18]

It is now known that Iraq did not possess weapons of mass destruction at the time of the invasion. Hussein decided to abandon these weapons, and, for his own reasons, chose not to inform UN inspectors. When Australia made its decision for war, however, the Government considered Iraqi weapons of mass destruction as a credible threat that had to be countered.

In addition to these factors, Howard gave one more compelling reason for Australia's participation: its long-standing alliance relationships with the United States and the United Kingdom. Howard observed that Australia had a 'close security alliance with the United States' and that he expected this relationship to grow 'more rather than less important'.[19] In the darkest days of the Second World War, when the nation lay open to Japanese invasion, the United States assumed from Britain the mantle of Australian security. To sustain this relationship, Australia has frequently supported its ally's security policy and contributed its forces to US military operations.

However, Australia's enduring relationships with these two nations represented more than just a security dependency. Australia and its allies share similar philosophies and cultural values. Alan Ryan observed that Australia's 'national security is inextricably linked with the fortunes of the United States and with

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[18] Murray and Scales, *The Iraq War*, pp. 39–44.

[19] 'Transcript of the Prime Minister, The Honourable John Howard MP - Address to the Nation', 20 March 2003.

other liberal-democratic countries around the world.'[20] Despotic regimes, such as Hussein's Iraq, are the antithesis of democratic values. From this context, Australia's decision to participate in the war had an element of safeguarding its own values.

So close is the alliance between the two countries that the United States was willing to place its forces under the command of an Australian, a practice that US leaders are usually most reluctant to allow. In 2003, the commander of the Australian maritime task group, Captain Peter Jones, also served as commander of Task Unit [redacted] a component of the US 5th Fleet. He had under his control a variety of RAN, USN, USCG, RN and Polish Navy ships, and was responsible for maritime operations in the North Arabian Gulf and the waterways leading into Iraq. The ships under his command ranged in size from patrol boats up to a USN cruiser. The willingness of the United States to allocate to the RAN an operational sector and also to give an Australian command of US forces demonstrates the high standing in which the United States holds Australia and its military leaders.

Planning for War

Although Australia's decision to join the Coalition for the invasion of Iraq was immediate, up until the moment of the Prime Minister's address the Government had not given any official guarantee to the United States that its forces would actually participate. Yet the Howard Government had taken the precautionary step of increasing the ADF's readiness in order to provide it with a war option if and when it so decided. In January, Howard announced his intention to send additional troops to the Gulf. At the time, the Government declared that the deployment did not mean that it had definitely made its choice for war. Instead,

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[20] Ryan, *Australian Army Cooperation with the Land Forces of the United States*, p. 1.

the Minister for Defence called it a 'very logical and incremental' increase in diplomatic pressure.[21] However, it is hard to imagine the Iraqi Government reaching any other conclusion than that it was under threat of potential attack.

While the Government addressed the diplomatic front, ADF planners began the process of preparing the force for war. This began early in the crisis—by mid-2002, Australian personnel were working in close contact with US planners. However, since the Government had not made clear its intentions regarding war, all planning took place under the condition of what ADF staff termed 'prudent planning'. By this they meant that none of the plans they drew up committed the nation to war. Even the military personnel who had been sent overseas to represent Australian interests on US planning staffs did so under the condition that the United States would not construe their participation as the nation's agreement to help with an attack on Iraq.

Australia's early entry into the planning did have considerable benefit. For logisticians, it provided an opportunity for the identification of equipment shortfalls and the development of a support plan. For example, ADF strategic planners suggested that the force assess its requirements for a number of items. These included cold weather clothing, NBC clothing and equipment, the availability of the giant Antonov 124 cargo aircraft for strategic lift, and the securing of diplomatic clearances from countries in or through which a potential deploying force would transit or base. The latter two were perhaps the most important issues that needed early attention because they were both war-stoppers. If Australia's ground based forces could not get to the theatre of operations, it would limit the Government's options to just a maritime response. Defence planners also investigated the need for particular weapons, especially those that could only be obtained from overseas.

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[21] John Armstrong, 'Australians on Alert for War With Iraq', *Defence Today*, February 2003, vol. 2, no. 1, p. 16.

The question of the vaccination of deployed troops also required early investigation. s33a(i) s33a(i) vaccines against anthrax or smallpox, the two most likely agents which Iraq was thought to have in its biological arsenal. JLC assessed the ADF's stocks of these vaccines and determined that there was an urgent need to acquire more.

By August 2002, an Australian team had joined US planners at Headquarters Central Command in Tampa. These personnel actually served as a part of CENTCOM's staff, not under the more traditional liaison arrangement. This offered Australia a number of key benefits, including:

- unprecedented access and an ability to influence the campaign plan
- an ability to keep abreast of planning developments
- the opportunity for staff to establish credibility and build relationships with their US opposites
- time to develop and improve coalition interoperability
- the opportunity for staff officers to learn Central Command procedures.

If Australian forces were to arrive in time for the onset of the conflict, the Government would have to deploy them in advance. This deployment began in early February 2003, after the Prime Minister announced the Government's intention to send troops to the Gulf. In taking this step Howard still maintained that he hoped for a diplomatic resolution, and that the Government still reserved its decision to participate in a military action.[22] The rapidity of the conflict demonstrated that pre-positioning had been essential, otherwise Baghdad would have fallen long before Australian troops had arrived in the MEAO.

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[22] 'Transcript of the Prime Minister, The Honourable John Howard MP – Ministerial Statement to Parliament on Iraq', 4 February 2003.

CHAPTER 4

Deployment

Introduction

Operation BASTILLE began on 19 January 2003 when the Howard Government ordered the ADF to start moving forces to the Middle East. As outlined in Chapter 3, the decision did not include authority to commence hostilities. That required a separate announcement, which Howard did not make until March when the United States began its assault.

Despite the potentially tentative nature of Operation BASTILLE, the deployment phase was a critical part of the coming campaign. Units had to select personnel, identify and draw equipment, prepare plans, complete their pre-deployment training, and conduct a reconnaissance, if time permitted, all at breakneck speed. Movers had to collate all unit requirements into a workable movement plan. Logisticians had to establish a line of communication, bring the support elements up to readiness, issue stores, and offer last minute IT training. There could be no delays. The Australian movement was a small part of a coordinated tri-nation strategic movement program. If the deployment broke down, the Australians would miss their transport window and would not arrive in time. Those elements already in theatre would lack the support they required to be combat effective. Had the deployment failed, the

Australian role in the war against Iraq would have been over before it had even begun.

Australia's Gulf Presence

By the time of the First Gulf War with Iraq in 1991, Australia and its predecessor colonial governments already had a long history of involvement in the Middle East, dating from the Sudanese expedition of 1885. In each of these instances, Australian ships, troops, and aircraft fought alongside other members of the Empire.

In each of these instances, the Australian contribution returned home in its entirety at the conflict's conclusion. This changed after the 1991 war when the Australian Government decided to maintain a standing presence in the region. This took the form of both one or two warships and a small land-based support element s33(a)(iii) The contingent's function was to help enforce the sanctions imposed by the United Nations on Iraq. After 11 September 2001, this function expanded to include an active role in the War on Terror. Australia used its experience in the Gulf to support the forces that deployed to Afghanistan as part of the US-led coalition against the Taliban and al-Qaeda. The Australian name for its part in this action was Operation SLIPPER.

As a result of this activity, the service with the most continuous experience in the MEAO since 1991 was the RAN. The Navy's operational station was the North Arabian Gulf, where it helped to enforce a blockade on sanctioned items that smugglers tried to sneak out of Iraqi waters in small vessels. Under Operation SLIPPER the Navy also patrolled the Persian Gulf for terrorist suicide boats and the transport of weapons and explosives. By the commencement of Operation BASTILLE, the RAN had twelve years of operational experience in the Persian Gulf.

Operation SLIPPER saw a substantial increase in Australia's presence in the region, including the addition of both ground and air elements. The Australian Army deployed a squadron of SASR to Afghanistan to operate alongside US special forces. To provide regional support to these troops, it also established a support base s33a(ii) called the s33a(ii) The RAAF commitment was a detachment of AP-3C maritime reconnaissance aircraft. Their task was to provide patrol cover over the Persian Gulf. Other RAAF aircraft provided support to Operation SLIPPER from s33a(ii)

In mid-2002, Australia withdrew its ground troops from Afghanistan. While the troops returned to Perth s33a(ii) s33a(ii) s33a(ii) s33a(iii) Ammunition and other explosive ordnance also s33a(ii) Since these items required a more secure location than was available at the s33a(ii) the special forces moved them to the British compound at the nearby s33a(iii) A small detachment of Australian troops protected the stores at both locations.

The s33a(ii) s33a(ii) would later prove useful when the SASR returned to the MEAO for the war against Iraq. It made their deployment quicker and easier. It also reduced Australia's strategic lift requirement and lowered the number of transport aircraft 1 Joint Movements Group had to engage. This was a critical concession during a period when air transport was in short supply.

Force Structure

After consultation with the CDF and COMAST, the Australian Government placed the upper limit for the nation's contribution to Operation BASTILLE a s33a(ii) personnel. The setting of this figure proved to be one of the most controversial

decisions made. Its selection had ramifications for the Australian contingent's logistics at all levels.

The origin and rationale for the selection of the figure of s33a(ii) is unclear and difficult to trace. Asked by a higher authority for manpower estimates, planners submitted figures derived from limited information loosely based on operational possibilities. The planners highlighted the 'guess' nature of their projections by labeling them as 'indicative only'. Higher command ignored this warning, finding them not only valid but interpreted them as the upper limit required for the operation. Later, as planners found some of their assumptions to be incorrect, any suggestion of updating manpower projections was not accepted.

In an early conception, the centrepiece of the Australian contingent was a Reconnaissance Battle Group. The formation does not exist on the Army's order of battle, but would have been an *ad hoc* creation of s33a(ii) soldiers drawn largely from the force's mechanised, infantry and support units. Other key units making up this early proposal were:

Table 4.1—Reconnaissance Battle Group (Proposed)

Elements	Establishment
s33a(ii)	

A Headquarters Joint Task Force (establishment of s33a(ii) would command the contingent. Minor units and detachments brought the force's establishment to approximately s33a(ii)

Further operational refinements saw the elimination of the Reconnaissance Battle Group idea, the addition of a second frigate, and the reduction of the overall establishment to s33a(ii) This reduced Australia's ground presence and made the Navy the largest contributor. The modifications also saw the loss of the Headquarters Joint Task Force, and the switching of command and control onto component lines. After having flirted with a joint command structure, the ADF reverted to its traditional comfort zone of subsuming its forces into the command structure of an ally's services. Table 4.1 (overleaf) outlines the force structure that the ADF deployed to Iraq for Operation BASTILLE.

The unit establishments listed in Table 4.1 did vary over the course of the deployment, but not significantly and not in excess of the overall manpower cap. For example, the Maritime Task Group increased the establishment of CDT-3 by two, but only after concomitantly reducing its establishment elsewhere. These figures do not include short-term visitors as they were not subject to cap restrictions.

Table 4.1 includes several s33a(ii) Line support units. COMAST allocated to logistic planners a personnel limit of their own that they were to apportion amongst the task groups. For logistics, the figure was s33a(ii) How this number came about is a troubling story that throws light on deficiencies in the ADF's decision-making processes.

In mid-2002, under the conditions of 'prudent planning', strategic-level logisticians began to consider the support requirements of a possible deployment. The original concept for which they were told to plan was one containing the Headquarters Joint Task Force, the Reconnaissance Battle Group and a special forces Squadron. The support plan they proposed called for separate s33a(ii) support elements, in addition to the integral unit-level s33a(ii) capability. JLC was to have responsibility for the s33a(ii) in Australia and the line of

communication to the agreed handover point in the MEAO. The plan's emphasis was on the support of ground forces as they made up the majority of the contingent. The support of fleet units was less of a concern since these would have continued to receive most of their logistics through existing maritime channels.

s33a(iii)

Given the plan's operational parameters, the logisticians concluded that the deployment would be best served by a Joint Force Support Battalion whose headquarters would control the deployment's in-theatre support operations. It would manage the handover point and all of the contingent's s33a(ii) support. Under its direct command would be a variety of capabilities, including a Joint Movement Control Centre, a Postal Unit, a Terminal Troop, a Force Signal Squadron, a Force Supply Company, a Transport Troop, a Financial Services Detachment, and a Contract Management Cell. Bonser approved the formation's establishment at s33a(ii)

Logistic planners drew up this plan under the belief that the Australian land-based contingent would fight under a single command in a defined theatre of operations, s33a(ii) s33a(ii) and that the fleet units would operate nearby in the North Arabian Gulf. This assumed a close integration of the Australian contingent. With these factors, a single joint logistic formation made sense. However, when Headquarters Australian Theatre changed the operational concept to five separate task groups, the logistic staff significantly revised their support plan.

Five task groups raised considerable difficulties because multiple bases were more wasteful in personnel than a single line of communication. For example, instead of one movement cell there were now five. This was the same for the force's post offices. The support staff now had to staff multiple post offices in the face of an acute shortage of trained personnel. Multiple lines of communication also reduced the deployment's efficiency, requiring each contingent to provide for its own specialist tradesmen. The lack of an in-theatre joint mechanism also made it virtually impossible for contingents to share staffs, thereby making it difficult to level work loads.

The biggest factor limiting the logistic planners was their inability to increase their share of the deployment's personnel. The target establishment of s33a(i) was immutable, despite the changes in the operational concept and the increase in the logistic plan's complexity. The planners had to fit a more intricate plan into an establishment that was designed for a different operation. Consequently, economies had to be found in staffing. s33a(ii) s33a(iii) s33a(iii) The revised plan assured that the Australian task groups would be even more reliant on partners than originally intended. It also resulted in the merging of the s33a(ii) Line functions into a single level. One heavily involved planner described it as 'a bloody mess'.

Australia also absolved itself of responsibility for the provision of some basic support functions. The most significant was the decision not to deploy any s33a(ii) medical support. Units retained their capacity to provide s33a(ii) medical support, but Australia did not deploy any higher capability. For example, *Kanimbla* has a s33a(ii) hospital on board, yet it sailed without the necessary surgical team. Instead, the plan called for the Australian forces to access US or UK medical facilities, if needed.

Pre-Deployment Preparation

One of the most common complaints voiced by planners was the lack of accessibility to the planning process. Obviously, the best way to keep a secret is to control closely the number of individuals privy to the information. s33a(ii) s33a(iii)

They had been made aware of the operation's possibility and had been tasked with its planning. Since the operation drew upon numerous aspects of the ADF's capabilities, its planning required input from personnel at various headquarters and agencies scattered across the country. At this early stage, the key locations were the Strategic Operations Division in Canberra and the Australian Planning Team s33a(iii) Supporting them were limited numbers of personnel at the Strategic Logistic Branch in Canberra, Headquarters Australian Theatre and the component command headquarters in Sydney, JLC in Melbourne, and the Sydney based 1 Joint Movements Group.

s33a(iii)

Obtaining an accurate estimate of equipment usage was a paramount concern for JLC because it needed time to purchase additional stocks and thus acquire a reserve. To get around this lack of access planners resorted to suggestive yet opaque

conversations with specialists to get the information they wanted. s33a(iii) [redacted] s33a(iii) [redacted]

The planning process can be expressed as a timeline. The area to receive earliest and longest consideration was the strategic level. As the operation neared, the number of individuals involved grew and the planning focus shifted to include the operational level. This necessitated more involvement from Headquarters Australian Theatre and its subordinate component commands. Tactical-level planning began last and at a very late point in the process. This gave the units ordered to deploy only a few weeks, and in some cases days, to complete their preparations before departing for the MEAO. The slowness with which the s33a(iii) [redacted] expanded severely truncated the time allowed for deploying units to ready themselves. It also hindered the exchange of information, resulting in planning that was often based on assumptions rather than solid information. Chart 4.1 (overleaf) outlines the focus and pace of the planning process expressed over time.

The lateness with which planners addressed the tactical level had serious effects on the units tasked to support the operation. In Adelaide, Joint Logistic Unit South and the RAAF's Air Movements Section were surprised to discover that the aircraft which would operate on the sustainment flight between Australia's east and west coast was a Boeing 727. It was to stop at Adelaide to pick up supplies destined for Task Group s33a(ii) [redacted] (the AP-3C detachment), as well as 16th Air Defence Regiment personnel serving with Task Group s33a(ii) [redacted] the maritime component. s33a(ii) [redacted] s33a(ii) [redacted] s33a(ii) Since every aircraft is different, the staff had only days to

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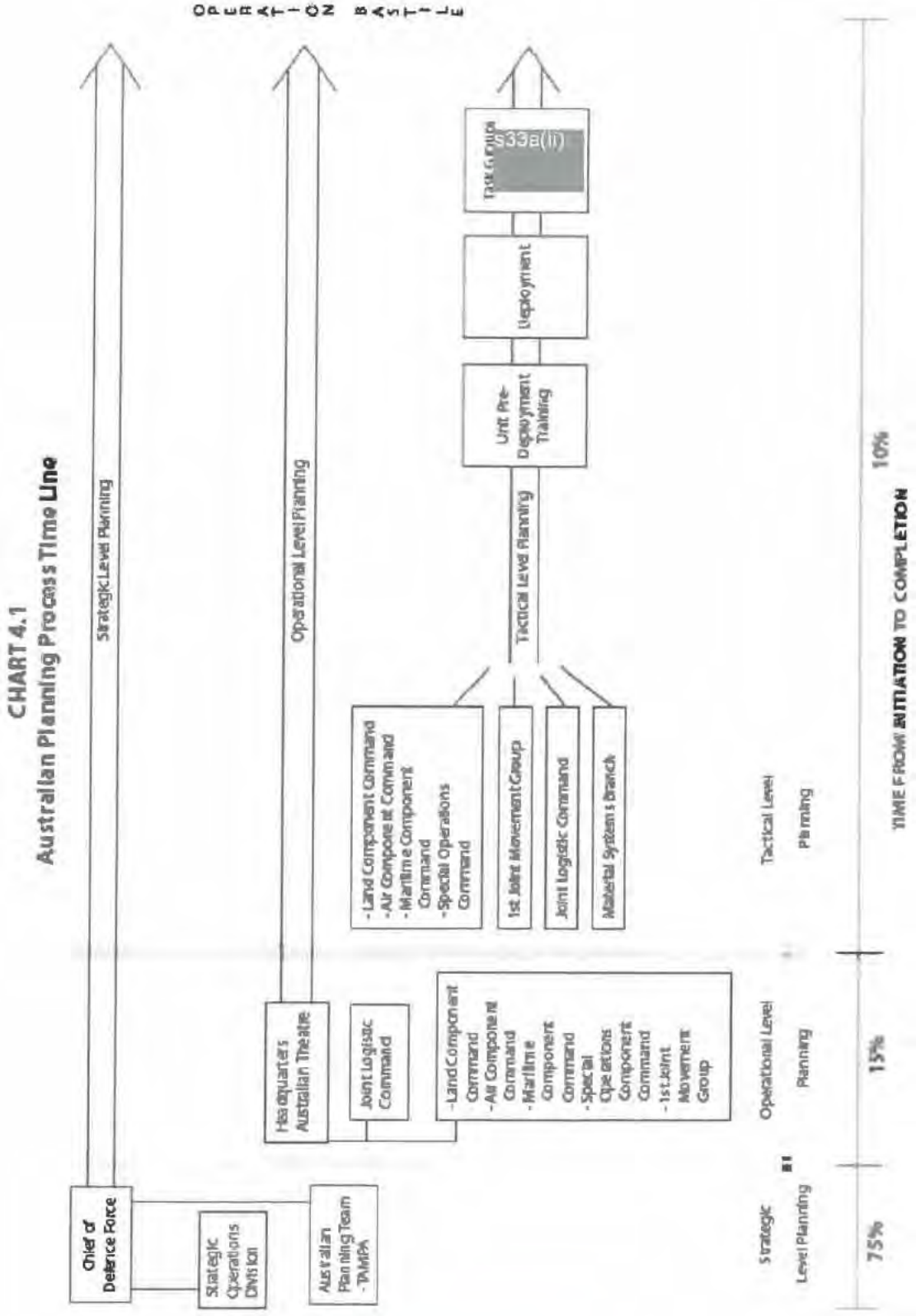

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source information on this aircraft's configuration, restraint requirements, floor load and pallet limits. One of their discoveries was that the Boeing 727 used wafer pallets. s33a(ii) s33a(ii) s33a(ii) The units met the support requirement in time, but the lateness with which they received notice of the operation put them under significant and avoidable pressure. s33a(iii) also created disjunctions in logistic planning. Adelaide again provides a useful but not isolated example. 92 Wing, the AP-3C operators, received notice to deploy a detachment for Operation SLIPPER. The deployment would be for twelve months. Their assignment later became part of Operation BASTILLE. The Wing's staff drew up a support plan. Only later was Joint Logistic Unit South informed of the operation, and that its role was to provide s33a(ii) support to 92 Wing. In fact, the support unit found out about its job only days before the AP-3C s departed. A review of the support plan raised immediate concerns. It drew upon the Wing's experiences, of which all deployments had been relatively short, usually only a few weeks. s33(ii) s33a(ii) s33a(ii) This was not an appropriate plan for a twelve-month high-tempo operation. Joint Logistic Unit South's participation resulted in a reworking of 92 Wing's support plan, and hurried implementation.

The entrance of units s33a(ii) at different times affected their ability to prepare for deployment. In some cases, units requiring specific items had to request them from

support agencies that were not yet in the loop. In these situations, care was required in placing requests because they could not inform the warehouse staff of the rationale for their needs, nor why they needed the items immediately. Again, it required a bit of 'flexible thinking' and cooperation on the part of both parties to assure the deploying units received the materials they wanted.

Overcoming Deficiencies

One of the benefits derived from the presence of Commander JLC being in s33a(iii) from the beginning was that his staff had the opportunity to identify deficiencies in the ADF's strategic logistic requirements and the time to rectify these problems. Among the issues needing JLC's attention were international logistic agreements and arrangements, urgent acquisition of select materials from allies, purchase of additional stores for which the force held insufficient stocks, and the articulation of standardised logistic IT system architectures.

One of the lessons learned from Operation STABILISE, the 1999 intervention into East Timor, was the need for a streamlined program for the quick purchase of stores that were not currently in the ADF's inventory. Normally, the procedure for the purchase of a new item required a lengthy evaluation, testing and acquisition regime, and identification of total-life requirements. It was a routine that typically took years. To bypass this exacting process, the Government authorised the 'Rapid Acquisition Program'. The Government made it clear that the military was to use the program only for an operationally urgent need. The rules also subjected purchases to the approval of the Defence Capability and Investment Committee. DMO identified JLC as the program's manager. Australia used it for the first time in 2001 during Operation SLIPPER, when it bought

specialised all-terrain vehicles, body armour and communication equipment for s33a(ii) in Afghanistan.

For Operation BASTILLE, JLC initiated two Rapid Acquisition requests. s33a(ii) s33a(ii) s33a(ii) It included items such as NBC suits, detection equipment, combat body armour, and cold-weather and camouflage clothing. s33a(ii) s33a(ii) s33a(ii). The materials requested included anthrax and smallpox vaccine, ballistic and electronic warfare protection devices for CH-47 helicopters, personal location beacons, satellite terminals, communication equipment and weapons and ammunition s33a(ii) s33a(ii) s33a(ii) s33a(ii)

In addition to access through the Rapid Acquisition Program, Australia obtained other urgently needed items from the United States through the US Congress Foreign Military Sales provisions. These regulations covered particularly sensitive weapons and devices that US law prohibits the country selling to foreign powers. Such materials are only available with a special dispensation from Congress. s33a(ii) s33a(ii)

Another logistic problem recognised in post-activity assessments of the East Timor operation was the need for a standardised IT architecture. In East Timor (now Timor-Leste), the ADF employed a number of different IT systems to mange its supply, distribution and acquisition functions. Problems encountered during Operation SLIPPER further underscored the shortfall in this capability. Each of the services managed their own non-compatible programs. The Army had more than one system since s33a(i) used a proprietary system.

In the lead-up to Operation BASTILLE, the CDF decided to impose universality on the ADF's IT structure. He assigned the task to Haddad at JLC. Haddad mandated that all deploying units had to use the required architecture. To help implement this policy he liaised with the Material Systems Branch, the Department of Defence's logistic software developers. Cosgrove's order affected two types of logistic functions: the demand for stores, including acquisition and shipment to the user, and the tracking of

materials along the line of communication. Different IT packages fulfilled the two functions.[23]

A unit had two options to initiate a demand for stores. They were: Standard Defence Supply System (SDSS), and Lotus Notes Interim Demand System (LNIDS). Units employed SDSS to order items that were already in the ADF's inventory and for which there was a NATO stock number. SDSS first appeared in the mid-1990s, although it was not until 2002 that the ADF identified it as its primary supply system. The NATO stock number was an international identification code that the organisation's members and other countries, including Australia, supported. It allowed military units of participating countries to order materials from their national support base, or from each other, by quoting a stock number. For Australian units in the MEAO, this greatly simplified their access to stores in US and UK inventories.

If the desired item was not in the ADF's current inventory, or if JLC had not yet assigned it a NATO stock number, a unit had to employ LNIDS to place an order. This system allowed the unit to add identifying details, such as the name of a manufacturer or a catalogue source. This extra information aided fleet managers in locating and purchasing the item. Functionally, therefore, the two systems were complementary, and a unit required both.

LNIDS also provided an ordering option for ADF personnel who did not have access to SDSS. This included personnel on exchange to another military organisation and who required the resupply of an Australian-specific item.

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[23] For a brief discussion of all of the ADF's IT systems see, Ian Thomas, 'An Overview of Systems Current in the ADF', in Elizabeth Barber (ed.), *Asset Visibility in Military Logistics*, Australian Defence Studies Centre, Canberra, pp. 15–41.

However, Cosgrove's desire for a universal stores IT architecture remained elusive due to technical communication incompatibilities on RAN ships, which prevented the use of either SDSS or LNIDS. Consequently, the fleet continued to employ a Navy-developed system. The RAN needed two, due to configuration differences between classes of ships. Adelaide-class frigates, of which the HMAS *Darwin* was one, used Ship Logistic Information Management System (SLIMS). The newer ANZAC-class frigates, of which the HMAS *Anzac* was one, employed ANZAC Maintenance Planning System (AMPS). The HMAS *Kanimbla* used both, SLIMS for inventory management and AMPS for maintenance planning. The Maritime Task Group also had the option of ordering stores via signal. This was the practice when a ship required an item to repair what it termed an urgent defect; that is, an essential ship system that had failed. Planned refinements of the SDSS and LNIDS software by the Material Systems Branch will overcome the RAN's communication challenges and enable its ships to operate these systems. However, the upgrade was not available for Operation BASTILLE.

The Cargo Visibility System (CVS) was the software the ADF used to track cargo. The Army originally developed this software for its long-haul road service. JLC made its use mandatory at all National Support Base units, air terminals and deployed forces. At each point in the supply chain, units were to record the cargo's arrival and departure so that JLC could track the location of any item. At the start of Operation BASTILLE, CVS still had limited recognition throughout the ADF, and most units had not seen it before.

As with SDSS and LNIDS, the JLC's CVS network had some gaps. The Maritime Task Group did not use it, since the RAN had not installed the necessary equipment aboard its ships. s.33a(ii)

s33a(ii)

To provide IT access in the MEAO, the Material Systems Branch established a network of Joint Operating Districts (JODs). The Material System Branch dispatched four two-person parties called the Deployable Logistic Systems Support Team. Each consisted of a s33a(ii) specialist. The teams installed and tested the systems and, once they were running, passed their control over to deployed personnel. Originally, the Material Systems Branch created s33a(ii) Joint Operating Districts.

s33a(ii)

Another area that required attention in order to overcome s33a(ii) s33a(ii) s33a(ii) s33a(ii) At one point s33a(ii) s33a(ii) had no useable stocks of anthrax vaccine. s33a(ii) was in the process of returning a

sample from a [redacted] because of safety concerns. A break in climate control had occurred during its shipment to Australia. [redacted] held at [redacted] was also suspect. It had caused a particularly severe reaction [redacted] during Operation SLIPPER. [redacted] was available, the ADF still would not have enough on hand for a deployment of the size of Operation BASTILLE. Haddad knew that it was imperative for JLC to acquire more. [redacted] needed all the vaccines they had and were not immediately forthcoming in filling the request. Even a direct approach from the [redacted] to the [redacted] failed to get the vaccine released. Eventually, entreaties from JLC had the desired effect, but the incident demonstrated the need for Australia to have greater and more secure stocks of materials to hand, especially if they must come from overseas or from an ally who might be experiencing similar shortages.

Hindering the timely arrival of many of the items that JLC requested from the United States was the priority allocator system [redacted] When a force prepares for an operation there is invariably a sudden demand for stores and services on the support base from the units and formations tasked for deployment. Materials are finite and military organisations require a mechanism to allocate support among competing claims. [redacted] fulfil this role.

The system works on a sliding scale and is composed of five levels. s33a(ii) s33a(ii) s33a(ii) further refine the system; the most urgent priority is s33a(iii) and units with this designation receive logistical attention before a unit classified as s33a(ii) s33a(iii)

That Australia received as much of the requested goods as it did was only due to the ability of its managers to massage the system. The ties that already existed between the two military organisations also eased the situation. In addition, the posting of Australian liaison officers to many US headquarters helped to lubricate personal approaches. These officers had already established favourable contacts and working relations with their opposites. At times the situation became so grave that it needed intervention at the highest levels. Many demands required repeated prodding from the Australian Embassy Staff in Washington as well as the Australian Liaison Officer embedded on the Joint Staff at the Pentagon. Sometimes the process worked in reverse and the lead individual was an embedded US officer serving in an Australian headquarters. For example, at Headquarters Air Component Command, a

USAF Major was instrumental in identifying a requirement for and source of aircrew s33a(ii) [redacted]

s33a(iii) [redacted]

Part of the reason for these delays was the Government's lack of clarity on whether or not it would commit forces to the war. JLC could hardly ask the United States to increase its access to US materials when it was uncertain whether or not Australia would join the Coalition. What is needed, however, is for the two nations to put in place a standing process for expediting upgrades in s33a(ii) [redacted] s33a(ii) [redacted] for future contingencies.

The Vaccination Program

Perhaps the most controversial and poorly thought-out part of Operation BASTILLE's planning was its s33a(ii) s33a(ii) s33a(ii) They feared that Iraq had militarised strains of the diseases. The planners were also afraid that Australian troops might inadvertently become exposed to pathogens in the course of investigating the enemy's munitions dumps and bunkers.

s33a(ii) s33a(ii) Instead, it was a condition of service. The distinction is subtle. As a condition of service, it meant that, in order to deploy to the MEAO, a person had to accept vaccination. Personnel were allowed to refuse, but if they did so they could not deploy. If someone refused who was already in-theatre, they were sent back to Australia. Although it is more virulent, planners had always regarded smallpox as the lesser of the threats. The force's health plan only required

s33a(ii) [redacted]

This was not the ADF's first inoculation program brought about by the threat of biological weapons. s33a(ii) [redacted]

s33a(ii) [redacted]

s33a(ii) [redacted]

s33a(ii) [redacted]

News of the inoculation program came as a surprise to most of the troops awaiting deployment or already in the Gulf. For some it caused considerable angst. One of the problems was the way the ADF presented the issue. Both anthrax and smallpox recipients had to sign a written consent form agreeing to accept vaccination. Within the body of the form was a statement that the Therapeutic Goods Administration had not approved the vaccine for sale in Australia. This caused personnel to question its safety. s33a(ii) [redacted]

s33a(ii) [redacted]

s33a(ii) [redacted] Document 4.1 (overleaf) is a copy of the anthrax consent form. The smallpox form contained similar language.

Causing further concern was that the vaccine required three well-spaced injections in order to achieve full protection. Personnel therefore had to make repeated visits to medical officers to complete the program. One officer described the program as an 'own goal'.

The RAN was the service most affected by the vaccination program. Two of its frigates, *Anzac* and *Darwin*, were already on-station in the Persian Gulf, serving under Operation SLIPPER. s33a(ii) [redacted]

s33a(ii) [redacted] For ship's captains preparing for potential war operations, the timing of the vaccine program could not have been worse. The *Kanimbla*'s post-activity report stated that 'the ship's company was

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Unit		
Number		
Rank		
Surname		
Given Name		
Date of Birth Sex		

CONSENT FORM FOR ADMINISTRATION OF ANTHRAX VACCINE

I, ...

(full name)

hereby consent / do not consent * to the administration of Anthrax vaccine for myself.

(* Strike out whichever is not applicable)

In addition I confirm that:

I understand that this product is not registered by the Therapeutic Goods Administration for sale in Australia but it has been approved for importation;

I have read the information provided on pages 2–4, relating to the use of Anthrax vaccine and have understood the information presented;

I have discussed the use of the above with the medical officer and been given the opportunity to ask questions;

I understand that I may refuse to accept Anthrax vaccine without prejudicing my medical care but that I may not be eligible for specific operational deployments;

I understand that in accepting Anthrax vaccine I do so without prejudicing my right to future medical care and military compensation entitlements; and

I have signed this form in the presence of an ADF Health Care professional.

Signed:..... Date:.....

I confirm that I have discussed the relevant products with the above named.

Signed:..... Date:.....

Printed Name:.....

Position/Designation:.....

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distracted by controversy surrounding the inept implementation of Anthrax vaccinations by superior headquarters.' It continued that 'the ship's company lost focus at a vital time in the preparatory phase of the deployment.' In addition, the ships had to take on hastily summoned sailors to bring the vessels back up to strength, and integrate the new arrivals into an established working culture. In the end, Task Group s33a(ii) lost s33a(ii) and Task Group s33a(ii) s33a(ii) s33a(ii) All members of Task Groups s33a(ii) accepted vaccination.

The problems with s33a(ii) s33a(ii) conspired to delay the inoculation program. On the eve of the war's beginning many Australian troops had not yet completed the full vaccine course. Table 4.2 outlines the status of the program by Task Group as of 17 March 2003:

Table 4.3—Status of Vaccination Program, 17 March 2003

s33a(ii)						
Total	s33a(ii)					

The situation was serious, but not as grave as the table suggests. Task Group s33a(ii) expected to complete its vaccination program within a few days. Task Group s33a(ii) the one that had made the least progress, s33a(ii)

s33a(iii) The body of troops most at risk was the s33a(ii) and nearly all of their personnel had received their full complement of vaccines. Despite these qualifications, it cannot be denied that many members of the deployment had insufficient protection from s33a(ii) at the war's beginning. Perhaps it is fortunate that the Iraqi military did not employ biological weapons after all.

The universal anthrax policy remained in effect until amendment on 17 April. Under the revised regulation, s33a(ii) s33a(ii) s33a(ii) This meant that only members of the s33a(ii) were still to receive the vaccine, and then only if necessary. Anyone who was mid-way through a course of inoculation did not have to complete the series. The change in policy reflected the decrease in the threat environment resulting from the collapse of the Hussein Government. However, the date of 17 April is significant for another reason. That was the day when the RAN expected to rotate its frigates in the Persian Gulf. s33a(ii) s33a(ii) a new batch of sailors who, it must be noted, had always been at a minimal risk of contamination.

The Movement to the MEAO

The organisation of the transit of personnel and equipment to the MEAO was the responsibility of 1 Joint Movements Group, under the direction of Headquarters JLC. The movers' task was to develop a movement plan for personnel and stores and acquire the transport capacity to meet the requirement. Due to time demands, 1 Joint Movements Group relied almost entirely on air transport. The only sea transport employed was the cargo carried by *Kanimbla* when it sailed to join the Maritime Task Group.

The movers had to work around two critical complications. The first was the RAAF's complete lack of a strategic transport capability. The Air Force's main transport aircraft, the C-130 Hercules, had a range and cargo capacity that was only suited for tactical or intra-theatre movement. The second was the Government's inability to provide the ADF with a clear indication of its intentions and a timetable for the commitment of forces to the MEAO.

Of the two problems, the former was the more serious. Personnel at 1 Joint Movements Group termed strategic air lift 'a war-stopper'. This meant that without air transport the ADF would not arrive. To overcome this capability deficiency, the movers entered the world market and hired strategic transport. The plan utilised various types of aircraft sourced through the USAF Transportation Command and from commercial suppliers. As the world's largest military organisation moved its forces to the Middle East, transport capacity was in extremely short supply. The employment of this finite resource required careful and exact planning and coordination between Australia and the United States. For this reason, 1 Joint Movements Group had a liaison officer at Headquarters Transportation Command.

To facilitate the transfer of personnel and stores, JLC raised a temporary organisation s33a(i) This unit coordinated most air movements to the Persian Gulf during the deployment and sustainment phases. There were some exceptions. For example, a USAF C-17 moved 5th Aviation Regiment's three CH-47 helicopters directly to the Middle East from their base in Townsville.

JLC formed s33a(i) by merging s33a(i) s33a(ii) s33a(ii) In Townsville, 10 Force Support Battalion provided terminal specialists as augmentation personnel.

s33a(ii) primary task was to receive and consolidate loads for on-movement to the MEAO. While some of the material came from local sources, most arrived from the eastern states through regularly scheduled air- or line-haul services. The 1 Joint Movements Group organised s33a(ii) s33a(ii) Line-haul trucks arrived on Mondays. JLC raised s33a(ii) s33a(ii) on 18 February 2003, and it served throughout Operations BASTILLE and FALCONER. It was disbanded on 16 June 2003.

It is not possible to break down 1 Joint Movements Group's aircraft hire statistics to match the three phases of Operations BASTILLE, FALCONER, and CATALYST. Instead, only summary figures are available. As of mid-2003, Australia had utilised strategic lift capacity consisting of:

Table 4.4—ADF Strategic Lift to the MEAO

Owner	Aircraft	Flights
RAAF	C-130	s33a(ii)
	707	
USAF	C-17	
	C-5	
Commercial	Il-76	
	An-124	
	747	
	747 (freighter)	
	757	
	767	
	727	

s33a(ii)

Additional hirings followed as the operation continued.

Aircraft belonging to the USAF and commercial contractors carried the vast majority of the deployment's personnel and equipment. This was because they had a capacity several times that of the transport aircraft in the RAAF's fleet. Still, despite their small size, 1 Joint Movements Group did make heavy use of Australian transport aircraft. Their primary utility was to carry materials that were not suitable for transport in a hired aircraft. These included s33a(ii) s33a(ii) could only travel on an Australian military aircraft. Their shorter range did require them to take a longer route with more stops for refueling, but all arrived without incident.

There is little doubt that with more time, the planners would have made greater use of sea transport—it is much cheaper than movement by air. However, the Government's reluctance to provide the ADF with a precise timeline denied this option. Working under 'prudent planning' guidelines, the

movers had to plan movement dates 'in advance of Government decisions and before lift requirements were finalised.' US movers at Headquarters Transportation Command were aware of the handicaps under which 1 Joint Movements Group worked, and tried to be flexible in committing resources and fitting flight schedules to Australian requirements. However, the two nations did reach the point where Australia's tentative plans either had to go ahead or face cancellation.

The only cargo that went by sea was the stores loaded on the *Kanimbla*. Maritime Component Command had originally tasked the *Kanimbla* to deploy to the Persian Gulf to support Operation SLIPPER. When Operation BASTILLE developed, the RAN brought the vessel's sailing date forward. The crew had less than two weeks in which to complete their preparations. The *Kanimbla* sailed from Sydney loaded with a Sea King Helicopter from 817 Squadron, with associated stores and approximately s33a(i) of equipment destined for the Australian National Headquarters's Commanders Reserve. It also embarked two LCM8s from 10 Force Support Battalion. The LCM8s were Army Boats 1051 and 1060, respectively the *Seahorse 2* and *Wanderer*. The *Kanimbla* paused in Darwin from 1–3 February to load approximately twenty tons of stores and vehicles belonging to CDT-3, as well as other items. The *Kanimbla* arrived in-theatre on 14 February.

By failing to make a timely announcement on the nation's participation, the Howard Government succeeded in boxing itself into a corner, while at the same time abdicating one of its few strategic decision opportunities to the United States. The USAF Transportation Command had to coordinate a worldwide movement of US forces to the MEAO. This required the careful management of an extremely scarce resource, namely strategic air lift. The need to rely on the United States slowly forced 1 Joint Movements Group's movement plan into

a narrow window of opportunity during which the United States was able to provide the necessary transport. The Howard Government, therefore, had to make its decision by a deadline that, in effect, was set by the rigidity of the campaign plan of the United States. If Howard failed to make an announcement by that point, Australia would not have access to the necessary air transport, and would have no choice but to stay home or limit its contribution to a maritime presence. s33a(ii)

s33a(ii)

s33a(iii), s47G

s33a(iii), s47G

Before Australian forces could set foot in the MEAO the Australian Government had to negotiate access rights with several countries. The Coalition required safe havens in which to receive its forces and prepare them for the coming campaign. Since the First Gulf War, the United States had maintained a considerable presence in the region, and had established bases and depots of pre-deployed equipment in s33a(iii)

s33a(iii)

Throughout the period of 'prudent planning', Australian diplomats negotiated a number of agreements to give Australian forces access to bases or permission to transit through and over several Middle East 'host nations'. Diplomats refer to these protocols as 'status of forces agreements'. At the end of the year, Air Marshal Angus Houston led a delegation to the Middle East and visited several countries. His objective was to finalise Australian basing and over-flight requirements.

While providing the needed access rights, each host nation imposed a different set of requirements on the troops they would allow into their countries and the facilities they would make available. Personnel documentation provides a case in point:

s33a(iii)

In each case the personnel had to provide suitable passport photos and the correct payment.

While a burden, personnel documentation was less restrictive than the requirements host nations placed on the entry of equipment and materials. All incoming cargo had to receive diplomatic clearance before host-nation customs officials would allow it into the country. In many cases, the host nations imposed a mandatory waiting period of several weeks on all incoming cargo. Prior to an aircraft's arrival in-theatre, 1 Joint Movements Groups had to provide local officials with a cargo manifest. Any deviation risked having the entire cargo secured in bond storage until customs officials received corrected paperwork. Moreover, each country required its own clearance approval, thereby making it difficult to transit equipment across regional borders.

The need to obtain diplomatic clearance caused a significant delay in items reaching their destination, a factor that units had not understood when placing demands. This was particularly true of explosive ordnance, which customs officials routinely subjected to delay. s33a(i) s33a(ii) in s33a(iii) s33a(ii) Had they needed to bring their equipment

from Australia, they would almost certainly not have been ready by the war's start.

The United States was subject to similar agreements with the host nations but with more flexibility, a factor of their greater experience and clout. Status of Forces Agreements is an area in which Australian diplomatic officials must gain more skills. Had the war gone on longer or at greater intensity, these agreements would have impaired JLC's ability to maintain the flow of supplies to the fighting troops.

Preparing for Departure

Once the units selected for Operation BASTILLE received notice to begin pre-deployment preparation, the latent tactical-level problems created by the restricted size of the planning compartment came into view. All units faced a hectic few weeks during which they had to: select personnel; begin vaccinations; identify, request and receive stores; ready equipment for shipment; complete training and undergo IT instruction; undertake reconnaissance of their assigned area of operations; farewell families and friends; and report to air or sea points of departure. At the same time they prepared to implement an operational plan into which they had no input. Considering the urgent timeline, it was surprising that the deployment went as smoothly as it did.

During the pre-deployment phase, the setting of the manpower cap at [redacted] raised concerns among the units destined for the MEAO. The cap's inflexibility—and the unwillingness of the military command to ask the Minister for Defence for even a minor increase—meant that instead of deploying in their entirety, units had to choose which particular skill-sets they wanted and to what depth. Poor communication between the flying and support squadrons meant that the latter had to make guesses on what the pilots would need. Any

wrong judgments would be met not by deploying more staff but through greater reliance on Coalition, contractor and host-nation resources.

Commanders also encountered problems in getting the staff they wanted. One hurdle was the need for deploying personnel to have a passport and visa in accordance with rules prescribed by the host nations. In some cases the persons with the optimum skills could not deploy because they lacked the required documentation. In their place a less-experienced person went. Sometimes commanders sought two-day passport processing for key staff, but this incurred extra charges. The result was that one of the most significant determinants in who would deploy was whether they already had a valid passport.

The sections of the deploying force that felt the brunt of the selection process were the administrative and logistic positions. The Combat Service Support Group had requested to deploy with a forklift and operator. This was denied, and the unit's commander was told that he could contract for a forklift when he arrived in the MEAO. The movers accepted the validity of this capability request but recoiled from having to move such a large, heavy item by air. They insisted that the better option was to lease one in-theatre. Therefore, the Combat Service Support Group departed without any mechanical handling equipment, an unusual situation for a [redacted] support unit required to load and unload aircraft and shift containers and stores between warehouses and trucks. Of course, on reaching their destination, the Combat Service Support Group discovered that there were no forklifts available due to high market demand. Eventually one arrived from Australia.

Even after the troops' selection and preparation, commanders had to tell some personnel that they would not fit into the unit's manpower allowance. Prior to sailing, the captain of the *Kanimbla* had to off-load personnel because the ship was

over its quota. While still in Sydney, it put ashore a twelve-person Fleet Intermediate Maintenance Activity Team. Upon reaching Darwin, the captain trimmed the crew by a further eight sailors. Despite there being plenty of bunk space on board, the minimal effect the extra staff would have had on the vessel's sea duration, and the fact that all twenty sailors had completed force preparation, the artificial manpower limit mandated that they be left behind.

To compensate for capability deficiencies, some units were able to bring specialists into theatre as short-term visitors, generally for no more than two weeks at a time, in order to complete a specific task. The Fleet Maintenance Activity Team did deploy but only to work on the *Anzac* when it went alongside a wharf for scheduled maintenance. When finished, they returned home. Repairs on the other ships would await their return to Australia.

In some cases it was simply impossible to get desired staff. The Commander of the Maritime Task Group was greatly concerned about the *Kanimbla*'s lack of a six-person [redacted] surgical team. There was no room for them under the cap, and higher command refused to raise the *Kanimbla*'s limit. However, even once the Task Group Commander had identified six sailors for return home, whom he believed were a lesser priority, he was still not allowed to bring a surgical team into the theatre. In another case the special forces' Combat Service Support Group was only allowed to add one plumber craftsman to its maintenance cell after it agreed to send someone else home.

Headquarters Australian Theatre instructed units to deploy with a thirty-day reserve of supplies. However, force preparation was inconsistent and units deployed with different levels of equipment. The [redacted] Expeditionary Combat Support Squadron deployed without key personnel items including

individual protection equipment, combat body armour and camouflage clothing. Some members of the unit s33a(ii) s33a(ii) s33a(ii) Another unit did not receive any s33a(ii) s33a(ii) Other units were unable to access cold-weather clothing and sleeping bags before departure and these caught up to them only after some weeks of cold nights.

All deploying units also had to request a great quantity of additional stores that were not part of their regular holdings. The *Kanimbla* needed to take on stores for the boarding parties that would inspect and secure small Iraqi vessels. The additional items were all rather mundane, but were not normally found onboard. In addition, all deploying units had to s33a(ii)

Headquarters Australian Theatre had given explicit instructions to the component commands outlining the equipment requirements, but units were also under pressure to meet their departure schedules. The result was that items were either ignored or overlooked and made up later. However, the lack of time is not a valid excuse. The deployment issues that some units faced in preparing for the Middle East revealed underlying problems and lack of experience in the mounting of an expeditionary force. This is a more serious problem than that of running out of time. It suggests that ADF protocols and training are not specific enough to mount a deployment on short notice.

One area that needed more attention before the operation's commencement was communication between the 1 Joint Movements Group and the other units managing the supply chain. For example, 1 Air Terminal Squadron detachment at s33a(ii) complained that they received poor information from the movers regarding the arrival time, aircraft type and cargo loads of incoming aircraft.

This resulted in 'the termites', as the movers are affectionately known, having to make last minute adjustments to their preparations. At Perth, aircraft arrived without the knowledge of the local movements office, Joint Movement Control Office – Perth. On some occasions the staff received a call from the tower at Perth International Airport telling them that one of their aircraft had just landed. If this happened, the Perth team had to quickly arrange accommodation, rationing and local transport. When the Forward Command Element of Task Group s33a(ii) passed through Perth, no-one met them and they managed the transit by themselves. These miscues tended to happen at the start of the deployment. During this period, 1 Joint Movements Group was overwhelmed by the crush of work, which even twenty-four hour days could not alleviate. Moreover, they themselves did not always receive good intelligence from s33a(ii) s33a(ii) Gradually, these problems sorted themselves out as communications improved and units adjusted to the higher tempo.

While the movement plan generally ran smoothly, on occasion there were problems. The most egregious case was when the F/A-18 aircraft arrived before their supporters. In another instance, without any consultation, a unit's equipment was off-loaded in Perth due to the aircraft's weight restrictions. As a result, critical stores were left behind, including s33a(ii)

In the midst of their pre-deployment preparation, units also had to learn how to use the mandated IT architecture, especially CVS. Most units had had no previous experience with the software. In some cases, particularly within the RAAF, there was a definite lack of interest in its adoption. The RAAF had a culture of deployed elements calling their home base and getting a spare part stashed on the next aircraft out. Moreover,

the Air Force had too narrow an experience base in the raising of an expeditionary force for deployment outside of Australia. The simplicity of *ad hoc* supply arrangements had great appeal, but such methods could have proven disastrous for a deployment on the scale and duration of this one.

To introduce the s33a(ii) conducted courses in its use all across Australia, using training personnel called the Deployable Logistic Systems Support Teams. Through no fault of the teams, their arrival could not have come at a worse time. Units were heavily involved in other tasks and this training did not get the attention it deserved. Instruction was interrupted constantly by more pressing matters, such as medical examinations for deploying personnel. In some cases units received their training only days before departure, when their minds were on other matters. As the movement to the MEAO began, it became clear that some units had not institutionalised the operation of the software. s33a(ii) s33a(ii) did not use it at all during the deployment phase. Terminal personnel at s33a(ii) also had no experience in its use. This was a particular problem since s33a(ii) s33a(ii) s33a(ii) As a result of the tracking system's late introduction, it did not become fully functional in some areas until the deployment phase was nearly over.

The tempo for Operation BASTILLE was so great that critical units were caught short of essential stores. 1 Air Terminal Squadron was one of the key links in the line of communication. It operated terminal detachments at RAAF bases across Australia, although the two main ones for this operation were at s33a(ii) s33a(ii)

s33a(ii) s33a(ii) In addition, it had not marked its equipment as property of the RAAF. As a result, most items did not return from overseas. s33a(ii) s33a(ii) s33a(ii) s33a(ii) the unit turned to a USAF detachment then based at The US personnel replenished the Australian stores from their own sources.

Conclusion

The ability to project power is one of the critical measurements used to judge the effectiveness of a military institution. While problems in planning and implementation were present throughout Operation BASTILLE, none of them prevented Australia from playing its part in the conflict. The difference between success and failure was sometimes uncomfortably narrow, however. For example, the issue of airline indemnity or the problem of access to international strategic lift could easily have gone against the ADF. Had they done so, Australia would have been unable to compensate and the result would have been a failure to deploy. While ultimately successful, in many ways BASTILLE was a too–narrowly run deployment and the ADF should make sure it enjoys a greater margin of error before embarking on similar operations.

CHAPTER 5

Sustainment

Introduction

Operation BASTILLE came to on end on 20 March 2003 when the Australian Government activated Operation FALCONER, the invasion of Iraq. The combat arms at that point made the transition from war preparation to warfighting. For logisticians, the change in operational roles was not as evident. While as fully involved in the war as the combat arms, the support units underwent a change in tempo and intensity rather than a change in function.

The support units had undergone their change in tasking earlier, well before FALCONER's activation. Once the Australian task groups were in place, the role of the logistician transitioned from the support of a deployment to its sustainment. There was no clear demarcation between the two. Instead, it was a gradual process that took place as units arrived at their destinations one by one. It was also ongoing. The RAN rotated its ships, the Australian Army introduced new units, and the RAAF changed airframes and crews.

Headquarters Australian Theatre required units deploying to the Middle East to bring with them enough stores for an initial period of thirty days. It was the task of the logistician to renew stockpiles and maintain unit stores. In addition, the line of communication had to provide replacements, spare parts, and

any items which units had not anticipated when they deployed. This was not necessarily a straightforward task since the rate of resupply was not a constant, but varied according to the interplay of usage, wastage, the location of units, and the assignments they undertook. Obviously, expenditure during fighting required a higher sustainment rate than in periods of less activity.

Throughout the Iraq War, Australia's logistic system was demand-driven. The support organisation did not put stores into the line of communication on a routine basis. Instead, it responded to demands that originated from the units whom it was tasked to support. Planning allowed logisticians to anticipate some needs, but ultimately it was the user who requested the type and rate of resupply. It is for this reason that the ADF's IT architecture was so important.

In the MEAO, units drew supplies not just from Australia. Instead, the support plan required them to fill their demands from local sources, including the host nation, local and international contractors, Coalition partners, and other Australian units. It was the interaction between activity, demand and source that determined the nature of Australia's logistic system during the Iraq War.

Sustaining the Deployment

To maintain the forces in the Middle East, JLC established a sustainment routine. Deployed units made demands through either the s33a(ii) for the s33a(ii) Maritime s33a(ii) s33a(ii) These demands were routed to the appropriate Joint Logistic Unit or RAAF warehouse. For example, demands from the CH-47 detachment went to s33a(ii) the warehouse that normally supported the unit. Similarly, s33a(ii) s33a(ii) managed demands from the

Maritime Patrol Aircraft Task Group. If the warehouse held the item, the unit entered it s33a(ii) and placed it into the line of communication. Demands for items that were not in stock, or which were not part of the ADF inventory, were sent to program managers who located a supplier from which to purchase the item.

Once the item was ready for shipping, it traveled to the MEAO by air. Materials sourced in the eastern states went first to s33a(ii) for consolidation. The stores then traveled s33a(ii) by a chartered Boeing 727 to s33a(ii) The Boeing 727 service operated s33a(ii) with one flight stopping in s33a(ii) to pick up items prepared by s33a(ii) s33a(ii) By mid-2003, there had been sixty-two flights between s33a(ii) In total they carried 1 451 260 kilograms of cargo. Stores originating from the s33a(ii) s33a(ii) via commercial air service.

Once in s33a(ii) the cargo became the responsibility of s33a(ii) This unit oversaw the arrival of cargo and passengers, their reconsolidation, the loading of aircraft, and their dispatch to the MEAO. During the BASTILLE and FALCONER phases of the operation, s33a(ii) supported a s33a(ii) departure of two Ilyushin 76 cargo aircraft, for a total of four aircraft pe s33a(ii) Periodically, when a backlog of stores accumulated, 1 Joint Movements Group increased the sustainment flight's capacity by hiring the larger Antonov 124 in place of the Ilyushin. During the sustainment phase, the operation employed s33a(ii) Ilyushin 76s and s33a(ii) Antonov 124s. Chart 5.1 outlines the supply chain from within Australia to the Middle East:

~~SECRET AUSTEO~~

CHART 5.1
Operation FALCONER Supply Chain

~~SECRET AUSTEO~~

At all stages of the line of communication, the staff of 1 Joint Movements Group were responsible for the allocation of space on the aircraft. They then notified s33a(ii) s33a(ii) of the loading priorities. Some priorities were obvious. s33a(ii) for example, could not wait and went on the next aircraft. Controversy did occur over priorities, however, in which case it was the responsibility of COMAST to adjudicate.

In general, the line of communication from the national support base to the MEAO worked well, but problems did occur s33a(ii) This included not only special supplies s33a(ii) s33a(ii), but also more basic items such as axles for s33a(ii) desert-pattern camouflage clothing, and s33a(ii) In one instance, s33a(ii) was unable to provide certain spares for the CH-47 helicopters. The CAF, s47F s47F came to an arrangement with the s33a(iii) Air Force for the parts.

These shortages were more than a matter of not enough replacement parts. They revealed a failure in the planning assumptions that underpinned the approach of the Department of Defence and the ADF to inventory management. ADF planners believed that, when in need, they could obtain the required items from the marketplace, much in the manner of the corporate policy of 'just in time' delivery. This belief proved false. Internationally, the United States soaked up worldwide supply, and Australia received from US sources only what they could spare. Domestically, the situation was no better, although for different reasons. The lead-time that Australian firms required to produce needed items was too long to meet the timeframe. Another problem was that some manufacturers had gone out of business, making the sourcing of spares difficult.

For example, the Australian Land Rover supplier had disappeared, and JLC could not buy replacement axles for damaged s33a(ii) vehicles. Instead, it had to cannibalise the ADF's Land Rover fleet to keep the deployed force on the move.

Of greater concern, the agency with responsibility for the mobilisation of the national support base, DMO, had neither a plan nor a staff or a procedure through which to access domestic industry. As a result, local manufacturers played no role in overcoming the ADF's logistic deficiencies, either before or during the conflict. This is a serious failure. If the national support base is unable to galvanise itself in the required timeframe, then the ADF must reconsider the wisdom of its low inventory policy.

Communication between Australia and the Middle East was also an ongoing problem. s33a(ii) Expeditionary Combat Support Squadron reported that it received inconsistent information on aircraft timings and cargo loads, and that on several occasions an aircraft arrived without warning.

Deployed units also experienced problems with the ordering system when demands went astray. The *Kanimbla* submitted a demand for a replacement s33a(ii) s33a(ii) 16 Air Defence Regiment aboard RAN ships. Since the request came from the Maritime Task Group, the Navy oversaw its processing. However, the item requested belonged to the Army. The line of communication had no protocols for joint support, or an established mechanism for movement between component commands. This was a legacy of the lack of a joint headquarters with command authority. The filling of the s33a(ii) request took far longer than necessary because of the inability of one component command to manage a demand from another component command.

Units also used the sustainment process to backfill stores that they failed to bring with them as part of their s33a(ii)

supply. When the LCM8 detachment boarded the *Kanimbla*, it brought with it very few stores. As the detachment's members realised their deficiencies, the ship's supply officer had to place demands to rectify the situation. The RAAF squadrons brought with them thei s33a(ii) s33a(ii) s33a(ii) This resulted in a call for additional materials. Another overlooked supply category during pre-deployment preparations was medical stores. After units arrived in the Middle East, orders flowed into the s33a(ii) s33a(ii)

The problem with this practice was that it caused a surge in demands. This in turn led to an increase in the volume of stores awaiting shipment to the MEAO. The sustainment pipeline's policy had assumed a fairly steady flow of stores. Instead, what happened during the deployment's first weeks was that materials built up on the tarmac at s33a(ii) and s33a(ii) and 1 Joint Movements Group had to sort out priorities in order to fill the limited transport space. This situation could have been avoided had deploying units done a better job of identifying their own needs.

The flow back to Australia of repairable items is another support requirement that needs review. Repairable items represented the s33a(ii) of supply for major weapon systems. These systems also tended to be very expensive. Since Australia stocked these items at levels that were too low for anything other than peacetime operations, their quick repair was essential. In its post-activity report, Joint Logistic Unit South complained that it had extreme difficulty in getting damaged s33a(ii) Part of the problem was the incorrect usage of CVS, which prevented JLC from locating and expediting the return of mission-critical stores. Another factor was that, throughout the operation, the line of

communication's primary focus was on getting stores to the MEAO, not back to Australia.

Between December 2002 and November 2003 the deployed forces placed nearly 22 000 demands with the national support base using SDSS. This includes the December demands by the s33a(ii) detachment in the s33a(ii) s33a(iii) made under Operation SLIPPER. By Joint Operating Districts, the demand total breaks down as:

s33a(iii)

s33a(ii)

s33a(ii) In addition, the onset of the campaign reduced the special forces reliance on the s33a(ii)

The above figures minimise the deployment's demand activity. They do not reflect orders placed through s33a(ii) nor through maritime channels. In addition, the national support base was only one of the areas from which the deployed forces could access materials. They could also obtain in-theatre support from the host nation, commercial contractors, and Coalition partners.

However, non-national sources all suffered from a different problem, the potential that at a critical moment an Australian demand would be superseded by a request from another organisation. In effect, by endorsing this system the ADF accepted that the ability of the task groups to fulfil their missions was dependent on the cooperation of other

organisations that it could not control and over which it had limited influence.

s33a(iii)

s33a(iii), s45

s33a(iii), s45

s33a(iii)

s33a(iii) [redacted]

The next line of in-theatre support was commercial contractors. The primary one was Inchcape Shipping Services, a firm with a long-standing presence in the Gulf. There were others, such as Seven Seas, who provided fresh food to the Maritime Task Group, and s47C [redacted] who did the same for the special forces. s33a(iii) [redacted] the Navy also made use of a local shipyard for the repair of small boats.

The use of contractors had drawbacks, however. Inchcape was available only at major centres. More remotely deployed units had limited access to contractors, even local ones. For example, the lack of local availability thwarted the s33a(ii) [redacted] s33a(ii) [redacted] Mechanical handling equipment was a high-demand capability for which the deployment was under-resourced. CDT-3 made do with an under-strength captured one. Despite its long relationship with Australia, s47C [redacted] sole motivation was profit. Consequently, as the story of CDT–3 shows, outlined below, s47C [redacted] sometimes saw Australian demands as being insufficiently lucrative.

When Australian units hired local civilians, such as truck drivers to pick up and deliver stores, they encountered a further problem involving access to US bases. Even using Inchcape did not alleviate the situation as the contractor often used s33a(iii) [redacted]

s33a(iii) If the driver was not on a list of approved personnel, the US guards would not let him on the base. When this happened s33a(iii) for example, personnel from the s33a(ii) had to meet the truck at the gate, borrow it, drive it to the warehouse, load the stores, return to the gate, and hand it back to the driver. This was an inefficient practice, but Australia's only recourse.

The ADF fielded a number of weapons platforms and equipment systems whose repair or maintenance required the assistance of the manufacturer. These included the s33a(ii) s33a(i) and the s33a(ii) on HMAS *Kanimbla*. Both captains classified the system's repair as an 'urgent defect'. Throughout the deployment, Australian policymakers were reluctant to allow contractors in-theatre. As a result, component commands learned that it was easier to access a manufacturer/contractor that already was in-theatre assisting US forces than to bring one out from Australia. The implications of this policy are clear. If the ADF is to maintain its increasingly technologically sophisticated equipment in working order, particularly when on active operations, it will need direct and timely access to manufacturer support.

The deployed force's last source of in-theatre support was its Coalition partners. Once again, the legacy of this support is mixed. Coalition support started off slowly as the national staffs developed personal relationships and became comfortable with unfamiliar procedures. For units at established bases, the question of Coalition support was never an issue. US bases were massive installations, of which the Australians formed only a minor part. The RAAF, for example, had no difficulty in using its s33a(ii) s33a(ii) with the USAF and received ready access to US ordnance. Moreover, routine requirements, including climate-controlled tents, rationing in messes, access to medical

facilities and amenities, use of transport, equipment and warehouses were all available upon request.

The fleet units of the Maritime Task Group enjoyed a similar relationship with the USN's support organisation. Since the Maritime Task Group did not include the RAN's support ship, the HMAS *Success*, it depended on US support ships for its resupply. When HMAS *Anzac* was tasked to assist the British Marines with gunfire support, its captain was able to top up the ship's magazine with 5-inch shells from a US supply ship. A mix-up took place as the delivery contained the wrong type of cartridge, but this error was easily corrected.

At more remote locations the situation was different. s33a(ii) s33a(ii) As befitting light troops, none of the Coalition partners had invested in either a permanent or large-scale support infrastructure, and all wanted to minimise their presence on the ground. s33a(ii) s33a(ii) s33a(ii) When the Combat Service Support Group arrived at its destination they discovered that none of the promised accommodation existed. Instead of environmentally controlled tents, they had to sleep in their workspace. The tents they did have dated from 1964, lacked floors and had no dust proofing. Most of the troops did not have cold-weather clothes or sleeping bags. This was in the middle of a desert winter. The promised ablutions block was not present and they made do with a couple of portable toilets. When someone cut the Australians' waterpipe it took three weeks to have it fixed. Eventually, the Combat Service Support Group got better accommodation: a number of non–air conditioned tin sheds thrown together by locals using dubious building methods.

Australia did have in inventory a few environmentally controlled tents of its own, and the s33a(ii) s33a(ii) did send them to the Middle East. However, to meet dangerous cargo standards the air conditioners had to be bled of their gas before travel. The idea was to re-gas the air conditioners upon arrival. However, due to manpower cap restrictions, the deployment did not have a craftsman with the necessary accreditation to recharge air-conditioners. Moreover, the host nation was unable to provide the Australian-specific gas. In the end, the tents were put back on an aircraft and returned to Australia unused.

For s33a(ii) the situation was potentially more serious because they depended on the United States for much of their s33a(ii). For the most part it was not an issue. To keep them in the field they received resupply from s33a(ii) However, as the s33a(ii) s33a(ii) If shortages occurred, the US commanders made it clear that they would take care of their own troops first. s33a(ii)

Despite the great strength of the US–Australia relationship, national preferences will make themselves felt in periods of shortage. If Australia is to make a useful contribution to a coalition, it must be able to operate not only at a well-stocked and largely safe rearward base, but also at the combat edge. At present, Australia's reliance on coalition partners for this aspect of its support is problematic, since what is promised during the safety of peace may not eventuate in the heat of battle. The ADF must examine its field logistic capability with an eye towards making it more robust.

Within the MEAO, one of the more onerous logistic tasks was that of the cross-leveling of stores. Some units arrived

without their proper allocation of key items. The most important was the correct number of NBC suits and equipment. Headquarters Australian Theatre wanted most deployed personnel to have three sets. The units most affected were those of the RAAF, the service with the least experience in raising expeditions, and which had paid the least attention to its deployment stores. Upon arrival in the MEAO, Australian units were surrounded by US troops who took their NBC drills seriously. Units suddenly found themselves in an environment in which protective suits had appreciated considerably in value since departure from Australia.

Until JLC received more s33a(ii) from manufacturers, Australian units had to manage the situation as best as they could. This required all units in-theatre to cross-level their equipment so that everyone had a minimum level of protection. This task fell upon the logistic staff at the Australian National Headquarters. It had neither the personnel nor the tasking for this job, but since there was no joint headquarters there was no other better-suited organisation.

The Australian National Headquarters also managed the Commander's Reserve. This consisted of s33a(ii) equipment s33a(ii) The idea was to have a centrally controlled, air-portable stock of equipment in case of an Iraqi attack on an Australian position with a weapon of mass destruction. Planners feared that such an attack would s33a(ii) A national reserve would give Australia the ability to quickly resupply an affected location. s33a(ii) s33a(ii) s33a(ii) When more equipment became available, JLC s33a(ii)

Units had received their deployment notices so close to their scheduled movement to the MEAO that none had had the

opportunity to complete their vaccination program in Australia. Instead, they received the rest of their injections in-theatre, either at US facilities or from stock sent out from Australia. The shipment of vaccine was the responsibility of JLC's medical s33a(ii) . Its staff had to take particular care in shipping the vaccine because incorrect temperature would render the vials either ineffective, dangerous, or both. In addition, not only was vaccine on a 'per volume' basis one of the more expensive items in the ADF's inventory, but if damaged it could not be easily replaced.

The safe shipping of the vaccine required some ingenuity. The destination for the first shipment was the RAN's LSE s33a(ii) s33a(ii) for on-shipment to Australian ships stationed in the North Arabian Gulf. Most of the sailors had not received any injections before deploying and both the *Darwin* and *Anzac* were already in the Gulf when the ADF announced the program. In this case s33a(ii) dispatched the vaccine via a commercial carrier, packed in an insulated box filled with ice bricks.

This method was safe since the shipment arrived at its destination in approximately twenty-four hours. However, subsequent vaccine shipments went by regular sustainment flight. This took at best four days, too slow to protect the vaccine without proper refrigeration. s33a(ii) did not have a mobile refrigeration capability. To provide for this requirement its staff purchased twenty-four Engel camping refrigerators. They then modified their standard Australian power plug so that it fitted into an aircraft socket. The next problem s33a(ii) faced was that the Boeing 727 aircraft, which flew the journey's first leg between s33a(ii) did not have a power supply in the cargo area. To get around this, the staff at s33a(ii) packed the Engel refrigerators with ice blocks for the relatively short flight across Australia. To monitor the cargo, an escort accompanied the shipment. Once at s33a(ii) the escort's

first task was to plug the refrigerator into a power supply. The next leg of the journey was by Ilyushin 76. These types of aircraft did have onboard power. At the handover point in the Middle East, responsibility for keeping the vaccine at the correct temperature passed to the s33a(ii) Line support unit. s33a(iii) s33a(iii) Of the deployed forces only the Maritime Task Group, and then mainly HMAS *Kanimbla*, offered significant assistance to Coalition elements. To provide replenishment at sea, the Coalition navies had in the Gulf a number of RN and USN support ships. These tended to operate to the south of the Australian task group's area of operations, away from potential danger. There was no supply vessel in the immediate environs of the North Arabian Gulf, the command area of Task Unit s33a(ii) The *Kanimbla* was ideally suited to serve as a resupply platform for the twelve ships that served in the task unit.

During Operations BASTILLE, FALCONER and CATALYST, the *Kanimbla* racked up an impressive list of support statistics. The highlights were:

- Replenishments at sea: 38, mainly patrol boats and coastguard cutters
- Fuel transferred to Coalition ships: 357.9 cubic meters
- Fuel transferred to Coalition rigid-hull inflatable boats: 2.5 cubic meters
- Fuel transferred to Coalition helicopters: 54.1 cubic meters
- Water transferred to Coalition units: 117.2 cubic meters
- Coalition rigid-hull inflatable boats embarked: four US and three UK boats with over 100 crew

Kanimbla's engineering department also served as a repair centre for the rigid-hull inflatable boat's engines, providing such a degree of service that the vessel became known as 'Diesels-R-Us'.

The ships *Kanimbla* supported were small vessels with limited sea legs. Had it not been present, Task Unit s33a(ii) would have lost the services of these vessels as they sailed south to resupply from either a support ship or dock. The ability of the *Kanimbla* to keep the Task Unit sustained allowed the Coalition to maintain a higher operational tempo than would have been otherwise possible.

Kanimbla's embarked capabilities made significant logistic contributions of their own. s33a(iii) s33a(iii) s33a(iii) s33a(ii) s33a(ii) This was in addition to their regular duty of transferring cargo to and from the *Kanimbla* via its stern door ramp. During the deployment, the two boats steamed a combined 2200 nautical miles.

The *Kanimbla*'s Sea King helicopter added a robust capability to the ship. During the course of its deployment the helicopter carried 530 passengers and over 275 000 pounds of cargo. The Sea King was also a welcome addition to the Coalition's 'Desert Duck' fleet. The Desert Duck was a Sea King platform delivery system used by the Coalition to distribute stores within the fleet. Helicopters would pick up stores from a supply ship and deliver them to the recipient. It was also used to deliver mail. While only suitable for small quantities of material, the system helped to keep ships on-station longer, as they did not have to go alongside a replenishment ship until they needed a major resupply.

The only problem with the *Kanimbla*'s helicopter was that there was only one. The ship has capacity for two Sea Kings. However, Headquarters Maritime Component Command authorised only one for this mission. The rationale for this judgment is not clear, but it may have been a result of trying to fit the Maritime Task Group into its restrictive manpower cap. A second helicopter would have required a second crew and additional maintenance staff. It may also have been because the RAN only owned seven Sea Kings at that time, and a second helicopter might not have been available. Whatever the reason, the failure to provide a second helicopter was a mistake and the *Kanimbla* would feel the lack of additional capability throughout the deployment.

The Sea King would have contributed even more if not for it breaking down at s33a(iii) while on a supply mission to the clearance divers. The craft needed a complete rotor assembly replacement and parts had to come from the s33a(i) This was a major repair, carried out under a temporary shelter. After sixteen days the mechanics were able to get the craft back into the air. Afterwards, although serviceable, it suffered from recurring defects that limited its use. The Sea King's failure demonstrated the lack of foresight in providing the *Kanimbla* with two helicopters.

Clearance Diving Team – 3

Without question the unit with the most poorly thought-out logistic plan, and the recipient of the worst support during the deployment, was the RAN's CDT-3. While representing only a small part of the Australian contribution to the Coalition's war effort, the experiences of this s33a(iii) team warrant particular attention as they provide a case study on what can go wrong with a unit's logistic arrangements.

The origins of the divers' problems lay in poor initial planning. From the start the divers and their superiors at Headquarters Maritime Component Command were at odds over the unit's projected role for Operation FALCONER. This failure to achieve a common understanding resulted in ongoing confusion over the divers' legitimate support requirements. In drawing up their plan, Headquarters Maritime Component Command assumed that the divers would work embarked on the *Kanimbla*, and use the ship as their support base. Demands made through normal Maritime Task Group channels would provide for the divers' specialised needs. To the staff at Headquarters Maritime Component Command, it seemed simple.

However, Maritime Component Command had based the plan on incorrect assumptions. By contrast, the divers expected to limit their use of the *Kanimbla* to passage to the MEAO. After their arrival they planned to base themselves ashore. Headquarters Maritime Component Command's inability to comprehend the true nature of the divers' operational environment adversely affected CDT-3's support for the entire deployment.

It was the divers who had the better knowledge of their wartime tasks. Before deploying to the MEAO, they had been on exercise in s33a(ii) [redacted] They knew that the primary mission for all diving teams was s33a(iii) [redacted] s33a(iii)

The divers began their pre-deployment preparations while s33a(ii) [redacted] The team returned to Western Australia for a brief visit before moving to Darwin to join the

Kanimbla. So rapid were the diver's movements that they received the [redacted] on three continents: the first in the [redacted] the second in Western Australia, and the third in the Middle East.

Upon arrival in the Persian Gulf, the divers concentrated [redacted] and prepared for movement by road into Iraq. This took place on 24 March, four days after the war's start. [redacted]

Once in Iraq, the divers' support program suffered from a number of complications. [redacted] Its experience lay solely in supporting fleet units, not a ground-based party of divers. The LSE delegated responsibility for the divers' support to the contractor [redacted] The divers soon discovered that [redacted] gave the nearby British 3 Commando Brigade Royal Marines a much higher priority. To [redacted] the Australians were an afterthought, to be provided for at the contractor's convenience. [redacted] prioritised its clients by profit potential. By this criterion CDT-3 was at the bottom of the list. Not surprisingly, [redacted] was slow to fill even mission-critical demands, and then only after constant prompting from the unit. After the operation the divers described [redacted] support as minimal.

However, [redacted] there was an Australian support unit, the special force's [redacted] Throughout Operation FALCONER it had spare capacity, and, if tasked, could have supported the divers. Unfortunately, the two units had different lines of communication. The divers fell under Maritime Component Command, while the [redacted] answered to Special Forces Component Command. Because of the command arrangements, the divers could not communicate directly with the staff of the [redacted] Instead, divers' demands had to proceed up the Maritime

line of communication to Sydney before proceeding back down the Special Forces line of communication s33a(iii) if approved.

Also s33a(iii) there was an enormous Coalition logistic presence, built up to support the US and UK forces. The divers, through Maritime Component Command, had no direct connection with any of these establishments. The lack of a link with any of the logistic entities s33a(iii) hindered and delayed the divers' support, and compromised their ability to fulfil their mission. The unit was only able to sustain itself by establishing personal contacts with Coalition units operating in their vicinity.

The divers also suffered from an acute shortage of motor transport throughout the deployment. They did not even have one truck. During their pre-deployment work-up, the divers had argued with their superiors that they had to have ground vehicles if they were to fulfill their mission. After all, they needed sufficient vehicles to carry the approximately s33a(ii) s33a(ii) sailors on the unit's establishment s33a(ii) s33a(iii) their superiors refused to see why they required ground-based transport. In the end, Maritime Component Command allowed the divers s33a(ii) Land Rovers with s33a(ii) trailers.

The divers' vehicle allocation was hopelessly inadequate. During its deployment the unit relocated four times. On each occasion it had to separate personnel and stores, and hitch rides on US convoys. It also hired vehicles from s33a(iii) dealers, when it could. Its lack of vehicles hindered its ability to s33a(ii) . For security reasons, each assignment required s33a(ii) s33a(ii) s33a(ii) This was not always the case, since the unit deployed without s33a(ii) s33a(ii) and had to order replacement parts through the supply chain or borrow them from nearby Coalition units. Since

the support plan did not allocate the divers a s33a(i) which would have been impossible anyway under the restrictive manpower cap, the divers also had to serve as their s33a(ii) s33a(ii) Their vehicles did not have built-in radios, and they had to set up a portable set every time they needed to communicate with base.

Properly equipped, CDT–3 should have had at least s33a(ii) Land Rovers with trailers and s33a(ii) This would have given them greater mission flexibility and alleviated many of their supply and transport problems. But there is another even more important reason why the divers needed a proper establishment of vehicles, namely security. The divers operated in a sector that was only partially secure. Had the unit needed to evacuate on short notice it would have been s33a(ii) s33a(ii)

The divers quickly got the impression that they were second-class citizens as far as logistics were concerned. They entered Iraq with a s33a(ii) Resupply was so slow to arrive that their stocks got down to a single day's worth of rations, and the unit actually ran out of water. Fortunately, the Royal Marines were nearby. s33a(iii) s33a(iii)

During their three months in Iraq, the divers did not receive a change of cloths. They deployed with three sets of camouflage and lived in them for the duration. There were no laundry facilities at any of their locations in Iraq. Despite their

area of operations, the assumption in Sydney remained that the divers would use the ship's laundry and, therefore, not need a reissue of clothes.

Maritime Task Group, CDT-3's superior headquarters, did its best to support the divers with the *Kanimbla*'s Sea King. The helicopter periodically made the run s33a(iii) to deliver fresh meat, such as sausages, and small pallets of general stores. They also delivered a small refrigerator to give the divers some cold-storage capability. The divers greatly appreciated these efforts. However, the service was *ad hoc*, fitted in when the ship could spare its heavily overworked Sea King from more urgent tasks.

Being a naval unit, the divers used maritime protocols for the ordering of stores. For the RAN, the highest priority demand is called an 'urgent defect'. This means that the request is for an item needed to repair a capability that is presently out of action—for example, to restore a radar system to service. The Navy transmits urgent defect demands by signal, and Headquarters Maritime Component Command monitors the request until it is satisfied. In the case of Operation FALCONER, the Navy would send the items s33a(ii) by commercial carrier. The LSE would then forward it to the appropriate ship by helicopter.

On one occasion the divers raised an urgent defect of their own. It was for inner tubes for their Land Rover tyres. Without replacement tubes the vehicles could not operate, and without vehicles s33a(ii) The demand, therefore, met the definition of an urgent defect. Headquarters Maritime Component Command failed to appreciate the necessity, however. Instead, the LSE s33a(ii) forwarded the request to s47G who put it at the bottom of their list.

For the divers, even simple demands became a tortuous process. For example, the Australian Army provides its

deployed troops with a care package called a Personal Hygiene Pack. It contains basic items such as a change of underwear and socks, soap and other hygiene products. All Army troops in the Middle East routinely received them. Personal Hygiene Packs are not a normal RAN issue and naval logisticians have no experience with the item. When CDT-3 personnel discovered their existence they placed a demand. What followed was lack of communication on a farcical level. The Navy could not find a reason to fill the demand since its personnel did not require these materials. The problem again became one of convincing the staff at Maritime Component Command that the divers, while sailors, were not actually serving aboard a ship. The ensuing debate took so long that the divers did not receive the packs until it was nearly time to return to Australia.

CDT-3's problematic support was a failure of both imagination and communication. Planners at Headquarters Maritime Component Command could not grasp the support implications of the divers not being aboard a ship. They had no understanding of peculiarities of ground support, and failed to meet the divers' needs. Ideally, the divers support should have been tasked to the [redacted] who had the spare capacity and the necessary knowledge. The different lines of communication made such an arrangement awkward. Ultimately the communication failure was a result of Headquarters Australian Theatre's decision not to raise an in-theatre joint headquarters. Without a command authority in the MEAO it was impossible for the task groups to manage supply requirements across component lines of command. The effect on CDT-3 was profound. In essence, they spent Operation FALCONER isolated behind friendly lines.

Medical Support

Another area of concern was the provision of medical support to the deployed forces. Western military organisations classify medical support into four levels. They are:

Level 1: unit-level primary care

Level 2: resuscitation and stabilisation

Level 3: wound surgery and hospitalisation

Level 4: recovery and rehabilitation

Headquarters Australian Theatre's medical plan limited the deployment's medical support to the primary care level. Even the *Kanimbla*, which had on board a Level 3 surgical facility, was not allowed to bring more than its normal organic medical staff, the equivalent of a general practitioner. Instead, if Australian units required more substantial medical assistance they would have to seek it from Coalition sources. The Coalition authority was the Aeromedical Evacuation Coordinating Center, which was under the control of the US Theater Patient Movement Requirements Center at s33a(iii) s33a(iii)

In theory, this plan made complete sense. Within the manpower cap it allowed the deployment to maintain its focus on a combat arms contribution. Since the United States and the United Kingdom had deployed full-scale medical support, including hospital ships, it was more efficient to tap into the Coalition network, if necessary. Furthermore, since the Australian Task Groups operated in different locations, they would have required not one but five medical contingents. This would have resulted in an untenable strain on the manpower limit.

As far as the Australian National Headquarters was concerned, Task Group s33a(ii) the aviation Task Groups s33a(ii) and s33a(ii) parts of the Maritime Task Group s33a(ii) (the LSE), and the Special Operations Task Group s33a(ii) all had

ready access to medical facilities. These elements operated from established bases, well behind battlelines, and were reasonably safe from Iraqi attack. In case of injury, Australian personnel could find treatment at a well-established base hospital. For example, the Australian National Headquarters could use a US hospital s33a(ii) and the AP-3C contingent s33a(ii) could use a nearby Canadian-staffed medical facility.

The situation was different for the special forces operating in western Iraq, CDT-3 around s33a(ii) and the fleet units in the North Arabian Gulf. They were directly in harm's way. There was always the possibility, for example, that an SASR patrol might run into an ambush, a diver have an accident with some explosive ordnance, or a missile strike an Australian ship. Even worse was the possibility of troops being hit by an Iraqi chemical weapon, or a ship running into a mine. These were realistic situations that would have resulted in mass casualties, if not fatalities, and would have challenged the response capabilities of any medical system.

For the troops at greatest danger, there were gaps in the Australian Medical plan. A primary concern was the lack of assurance that treatment would be available within the 'golden hour'. For battlefield trauma survival, the odds of a patient making a full recovery is much greater if medical treatment commences within an hour of injury, and the 'golden hour' has become the medical standard for Western military organisations. s33a(ii) s33a(ii) s33a(ii) Interviews revealed concerns over the extent of coverage available in their sector, particularly if they had to compete with US soldiers for evacuation priority. They did not believe that the US aeromedical capability was sufficiently robust to meet the

'golden hour' standard. They especially thought that mass casualties would have overwhelmed the evacuation system.

The ships of the Maritime Task Group operating in the North Arabian Gulf faced different but equally deadly threats. Iraqi surface-to-surface missiles, some which passed nearby enroute to other targets, were a minor concern. The real fear was nautical mines. Iraq took advantage of the murky waters of s33a(iii) to set mines, and these provided the clearance divers with great challenges in their removal. Coalition forces fortunately captured a barge and tugboat that the enemy had converted into minelayers before they could discharge their cargo. When the *Darwin* and the *Anzac* moved inshore to provide gunfire support to British Marines, they did so with care. On more than one occasion the s33a(iii) s33a(ii) Had a ship hit a mine, the explosion would have ripped it apart, causing terrible damage to the vessel and its crew.

The deployment's medical plan called for the Maritime Task Group to receive medical support from the USN or the RN. The Coalition had two medical ships in the Gulf, the Royal Fleet Auxiliary *Argus* and the USNS *Comfort*. Interestingly, when the *Kanimbla* arrived on-station, its Medical Officer visited the US Fleet Surgeon and the UK Medical Coordinator and discovered that neither of these officers was aware that the Australians intended to use their facilities. The Coalition had developed a sensible plan to cover Australia's medical shortfall. However, the plan's provisions had not filtered down to the in-theatre medical staffs. The parties quickly resolved the matter, but the incident demonstrates that miscommunication remains a real threat in war, especially between allied organisations.

Ironically, despite the absence of a surgical team, the *Kanimbla* frequently found itself operating in a medical support role. It was often the nearest ship with an aeromedical

evacuation capability. It therefore found itself tasked to support the British ground troops ashore. The ship's Sea King Helicopter was often on thirty-minute alert status for casualty evacuation. If called upon, the helicopter's task was to fly to the casualty pick-up point and carry those injured, not back to the *Kanimbla* but to the s33a(ii) stationed further to the south. The extra flight-time meant that the transfer was well outside of the 'golden hour'. If the *Kanimbla* had had its surgical capability, treatment could have started sooner.

Headquarters Australian Theatre also prepared a mortuary affairs plan in case of fatal casualties. Fortunately, it was not needed. If required, Australia would have again relied upon the United States. The plan called for the US Mortuary Affairs Unit to recover and process the remains. It is almost certain that the remains would have returned to Australia via a US mortuary in Germany. 1 Joint Movements Group was given the task of coordinating the repatriation from overseas while the Australian National Headquarters was to monitor the movement of the remains in the MEAO. To assist in the return, JLC signed a standing offer with s47G s47G s33a(iii), s47G The contractor agreed to provide to the ADF anywhere in the world. The mortuary plan also instructed all parties to observe AQIS protocols in order to facilitate the entry of the remains and effects into Australia.

The course of the war did not test the ADF's medical plan. The absence of battlefield casualties neither confirmed nor challenged the wisdom of the deployment's reliance on coalition partners for what is a basic military responsibility. However, for a country to bet on its enemy's incompetence is not the best way to ensure for the medical requirements of its troops. The reality is that a more worthy enemy might have provided a more exacting test of the ADF's medical

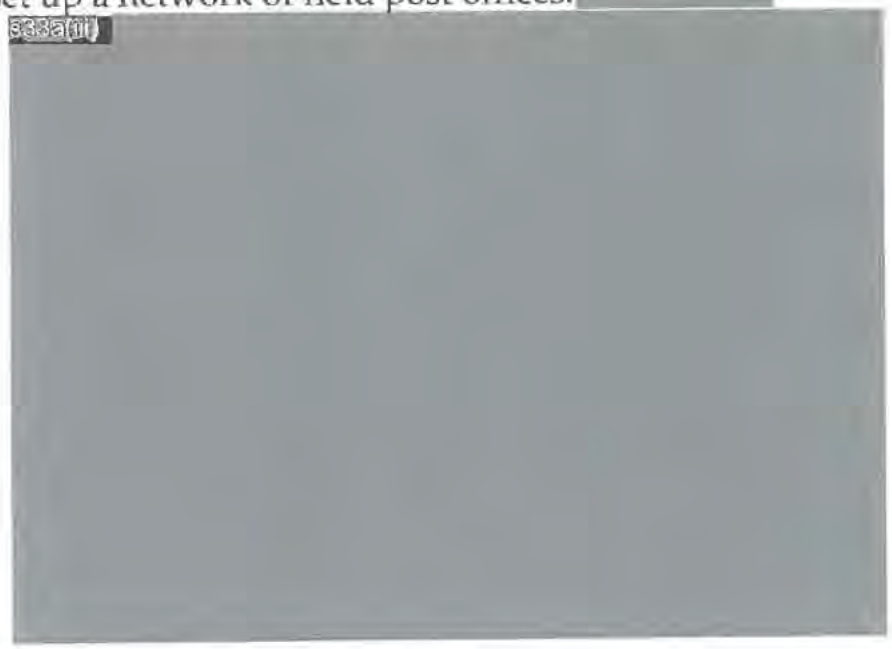
assumptions. The Australian Government and its military leaders must ask themselves if it is wise to challenge the 'golden hour' by relying on a coalition partner, while an Australian sailor, soldier or aircrew lies waiting for evacuation.

Postal Services

Mail from home is one of the most important morale boosters available to a military organisation. For overseas military personnel facing isolation and danger, a letter or parcel from family is an essential means to maintain contact with home and community. The arrival of mail eases tension, reduces isolation, and injects a sense of normality into the rigours of wartime service.

For exercises and operations, the ADF has on its establishment a deployable force post office capability. This is called an 'Australian Force Post Office' (AFPO). The core of the capability is located in Townsville, within 10 Force Support Battalion, where the soldiers run an Australia Post office. To support Operations BASTILLE, FALCONER and CATALYST, the ADF set up a network of field post offices. s33a(ii)

s33a(ii)



Each of the ADF's services had responsibility for the provision of postal support to their respective forces. The RAN had an established procedure in place, based on its LSE [redacted] The Army also has great experience in the creation and operation of force post offices, and is the only service with dedicated mail personnel and a recognised postal trade. The service with the least experience was the RAAF. Its inexperience was to be amply demonstrated during the deployment. The RAAF's main problem was that it failed to grasp the complexities involved in the provision of mail services. An AFPO must offer the same range of services as any suburban Australia Post office. The Postal Plan drawn up by Headquarters Australian Theatre mandated that each component command provide trained postal operators for the deployment. It also required them to liaise with Land Component Command to arrange postal support. This was because Land Component Command was the sole source of personnel for this trade. The Army did offer to provide the air components with qualified postal staff; however, the RAAF fell back on service pride and declined. Instead, the Air Force decided to go it alone and cross-assign its clerks as postal operators. The decision was a mistake.

During its pre-deployment preparations the RAAF assigned responsibility for postal services to its Expeditionary Combat Support Squadrons. In the brief time allowed, some Air Force clerks managed to receive some training at the Army's post office in Townsville. However, other units, for example [redacted] Expeditionary Combat Support Squadron, deployed without any of its personnel receiving postal training. Upon arrival in-theatre, the unit's clerks found a mountain of mail for which they were responsible. As related in [redacted] post-activity report, the unit soon reached the conclusion that it needed specialist staff endorsed for handling mail as part of the AFPO system. By

then, of course, it was too late. To improve services, the Army provided an in-theatre crash training course. This imposed an additional burden on the already busy Army postal clerks, but one which the urgency of the situation made unavoidable.

Examination of AFPO operations provoked damning comments from several observers on the RAAF's lack of attention to this requirement. A JLC study concluded that:

> Air Force needs to come to grips with the full requirement to get their people trained to AUSPOST standards in order to operate the full suite of services that an AFPO should provide to its constituents. Its intransigence on this issue was just one of the key log issues that Air Force were pig-headed about and it was to their detriment.

In a letter to his Air Force equivalent, the Deputy Chief of Army, Major General s47F discussed the training of RAAF personnel in the postal trade. He had three concerns regarding the Air Force's standards. s47F questioned the employment of unqualified operators in a technical area, the refusal to make use of the Army's proven capability, and the subsequent in-theatre reliance on Army postal staff to give *ad hoc* training to Air Force clerks.

Mail reached the MEAO via a variety of means. Most went by commercial air carrier. In particular, the RAN continued its relationship with commercial airlines s33a(i) s33a(i) s33a(i) This meant that it took longer for special forces' mail to reach its destination than the other task groups.

All mail also had to meet Australian and international mail regulations. For example, all parcels had to have customs declarations. The Government allowed senders to post up to one kilogram of mail on each instance without charge, later raised to two.

All parcels had to meet host-nation sensitivities. As part of its agreements to gain basing rights for its forces, the Australian Government accepted certain limitations on what could be sent to its troops. Headquarters Australian Theatre's Postal Plan contained a lengthy list of prohibited items. In addition to normal forbidden materials such as explosives, it included:

- alcohol and tobacco
- firearms, weapons and weapon parts
- contraceptives
- lottery tickets and games of chance
- pork and pork products
- publications containing pro-Israel material
- publications containing anti-Arab or anti-Islamic material
- cloth bearing the name of Allah or verses from the Koran
- clothing resembling military uniforms
- publications or recordings considered to be obscene, contrary to religion, faith, custom and tradition.

The additional postal regulations required Australian military staff to surrender some of their privileges. This is a frequent and expected necessity in military organisations. However, the Government extended these prohibitions to the rest of the Australian community who are not subject to military discipline. In the context of a free society this needs to be questioned.

There was only one known incident of a violation of mail protocols. A sapper in the MEAO mailed back to Australia a parcel containing artifacts, including live ammunition. Australia Post authorities caught the package in s33a(ii) and

notified s33a(ii) [redacted] An investigation began and resulted in the sapper's reprimand and fine.

Since JLC employed different methods for shipment to the MEAO, complete figures on the total amount of mail dispatched are not available. Between 30 January and 12 June 2003, JLC sent nearly 48 000 kilograms of mail to the MEAO and nearly 8000 kilograms from the MEAO to home. This figure does not include mail destined for the Maritime and Special Operation Component Commands. s33a(ii) [redacted]
s33a(ii) [redacted]

Operation BAGHDAD ASSIST

The removal of the Hussein Government and the elimination of Baathist administrators unleashed an orgy of looting and lawlessness in the capital and other major cities. This is not the place for an analysis of the reasons for this outbreak of violence, nor of the US failure to anticipate the need to provide an internal policing and security capability. One event that drew considerable media attention was the widespread raiding of hospitals and other medical facilities. In the immediate aftermath of the war, the looting denied Iraqi civilians access to basic medical attention.

The ADF commanders saw the destruction of Iraq's medical infrastructure as an opportunity to make a direct contribution to the betterment of the local populace. It was also a chance to garner considerable positive media exposure. At very short notice, Cosgrove authorised the launching of Operation BAGHDAD ASSIST, Australia's contribution to relieving the medical shortages facing the people of Baghdad.

The short notice given for Operation BAGHDAD ASSIST tested JLC's responsiveness. The key unit was the Defence

National Storage and Distribution Centre – s33a(ii) This facility was the ADF's s33a(ii) The unit received a warning notice on the morning of Saturday 12 April. By 10 am the operation had been upgraded to a 99 per cent chance of going ahead. At this point the staff at s33a(ii) accelerated their preparations.

The critical question was what to send. In the logistic system JLC set up for Operations BASTILLE, FALCONER and CATALYST, support units responded to demands from the deployed forces. In this case there was no demand. s33a(i) did contact the operations staff at Headquarters JLC for a stores list. They were told that none existed, and that they were to pick materials needed to treat civilian injuries as shown on television. This was not a useful reply. In addition, JLC could not tell them at this stage how much stock to draw.

The s33a(i) staff decided that the best course of action was to walk the warehouse to determine what was available. Clearly, they could not denude themselves of stock since they still had to support the Australian forces in the MEAO, not to mention other deployments. The basis of selection became the items found in a 250-man medical kit.

At about 7 pm JLC informed s33a(i) that the operation would go ahead and that they should select enough stock to fill one C-130. At this point they called in contractor staff to help with the selection and packing. The staff worked through the night and prepared s33a(ii) for dispatch. Trucks arrived at 5 am on Sunday to take the pallets to s33a(ii) for the flight to s33a(ii) However, at the last minute seventeen pallets were left behind because the medical staff was not told until too late that a C-130 could only hold s33a(i) In s33a(ii) additional stores were loaded.

From s33a(ii) the aircraft flew to the Middle East. The receiving unit was s33a(i) Expeditionary Combat Support

Squadron. It had also received late notice, and had little information on the operation. The Australian National Headquarters advised the unit that it needed to provide temporary storage for s33a(i) pallets for twenty-four hours. This was later revised to s33a(ii) which still minimised the incoming load. When the load arrived the unit discovered that it included items requiring cool storage, which it did not have. A USAF mess provided this service.

In the Middle East, the *Kanimbla* was a secondary source of medical stores. Its under-utilised hospital was fully stocked, and the Maritime Task Group had stores to spare. The ship's captain moved these to Iraq with its Sea King.

The operation only met some of its objectives. The stores originating in Australia never actually got to Baghdad. They did make it into Iraq, but only as far as An Nasiriyah. The mission, however, did achieve its media goal and showed Australia as meeting its humanitarian obligations. The staff in the line of communication also demonstrated their ability to respond to sudden changes in the operational environment. The main problems lay at the higher command levels. First, the operation was initiated primarily for public relations reasons. Second, throughout the operation those striving to complete the task received little useful information but considerable interference. As s33a(ii) staff neared completion of the task they received a call from the Strategic Operations Division with a list of requested stores. Since the job was nearly done the late arrival of a stores list was not appreciated. Strategic Operations Division followed this up with periodic calls to ask if particular items were in the load. 1 Joint Movements Group also kept changing the timings for the C-130's departure. In addition, no-one informed s33a(ii) that a second C-130 had been added to the mission, which would have allowed them to send more pallets.

Conclusion

Fortunately, Iraqi forces proved an unequal match and the Coalition quickly overwhelmed their opponent. The war's brevity was also welcome because it reduced the strain on the Australian line of communication. It is not possible to accurately project the effect a lengthy war would have on the Australian support establishment, but worrying indications did emerge from a conflict as relatively minor as that in Iraq.

The support that the Australian task groups received in the MEAO relied heavily on agreements with Coalition partners and commercial contractors. While ideal in peace, their implementation in war revealed some latent problems. Had the war gone on longer, or reached a more intensive level, it is not clear that Australia's forward deployed forces would have continued to receive the same extent of support from the Coalition partners that these agreements anticipated.

The plight of CDT-3 further underscored the complexity of logistics. The support of this small unit should have been a trivial exercise. However, its location, the complexity of the Australian lines of communication, the lack of an in-theatre headquarters with command authority, and an institution-wide failure to address joint administration arrangements conspired to leave the divers nearly on their own.

By contrast, the sustainment phase revealed numerous logistic accomplishments, despite the short timeframe allowed for pre-deployment preparation. The task groups functioned. Australia's F/A-18s, AP-3C and C-130 aircraft took their share of Coalition air missions. The special forces slipped into the desert, operated behind enemy lines and destabilised the enemy's defences. The RAN's ships helped the Coalition to control the North Arabian Gulf and materially supported ground troops with gunfire. This was all possible because of the work of the deployment's logisticians.

CHAPTER 6

The Return to Australia

Introduction

The ADF's transition from Operation FALCONER to Operation CATALYST took place on 16 July 2003. Australia defined its role in CATALYST as to assist in the rehabilitation of Iraq through its continued participation in US-led coalition operations. To meet this goal the COMAST identified a number of specific tasks for the deployed forces. These included:

- supporting the reconstruction of Iraq and the provision of humanitarian aid to the country
- assisting in the location and elimination of weapons of mass destruction
- providing air traffic control services a s33a(iii) s33a(iii)
- providing security at the Australian Mission in Baghdad
- undertaking sea control and maritime security and protection missions in the North Arabian Gulf
- detecting and apprehending illegal cargo.

Under CATALYST, the Government prohibited the Coalition's use of Australian forces in offensive combat operations, although the diggers would defend themselves. The Australian Government originally anticipated that the

deployment would last twelve months, although this was subsequently extended and Operation CATALYST remains an ongoing operation.

The conclusion of Operation FALCONER also saw the reactivation of SLIPPER, Australia's contribution to the War on Terror. Headquarters Australian Theatre was to run FALCONER and SLIPPER as separate operations, although some units, such as the Maritime Patrol Task Group, were assigned to both.

Australia's legal authorisation for its ongoing role was met by a UN Security Council resolution. Resolution 1483 of 22 May 2003 recognised the occupation of Iraq under the authority of a unified command consisting of the United States, the United Kingdom and other Coalition partners. Following the war's conclusion, over thirty countries joined the Coalition and sent forces to assist in the occupation.

Reorganisation

By the time of the transition to CATALYST, the reshaping of the Australian contingent was already well underway. Some units had returned home, while others had arrived in the MEAO to undertake new tasks. The change in mission objectives and the reduction in personnel gave Headquarters Australian Theatre the opportunity to reorganise the structure and command relationship of the deployment. Chart 6.1 (overleaf) outlines the new organisation.

The new structure retained five task groups, but changed the function of some. The Maritime Task Group [redacted] and the Maritime Patrol Aircraft Task Group [redacted] remained the same, although their tasks evolved slightly to reflect the new mission requirements, as well as the reactivation of Operation SLIPPER. The Air Task Group [redacted] also remained, but with changes in its makeup. The F/A-18 Squadron and its Expeditionary


s33a(ii)

Combat Support Squadron returned to Australia, while the C-130 detachment with its support element remained. Its function was to provide intra-theatre lift to the Australian contingent. The Special Forces Task Group s33a(ii) was the component that changed the most. All of its Operation s33a(ii) units returned to Australia, replaced by a number of specialist teams whose tasks included damage and weapon effectiveness assessment, training of Iraqis, and contributions to the Coalition's post-war rebuilding efforts. In effect it ceased to be a special forces component. Headquarters Australian Theatre redesignated it as the Iraq Group, although it retained the number s33a(ii)

Headquarters Australian Theatre also modified Task Group s33a(ii) the Australian National Headquarters. It became Headquarters Joint Task Force (Task Group s33a(ii) and s33 s33a(iii) In late May 2003, the Headquarters also received a new commander. McNarn returned to Australia and the Headquarters welcomed Air Commodore GM Bentley.

While Bonser retained command and control along component lines, this also underwent some modification. The deployment's commander remained COMAST. Beneath him was Bentley, who had operational control over all the task groups but command control over only two s33a(ii) This meant that while Bentley could prevent a task group from being ordered by the Coalition to do something outside of its mission guidance, he could not change its mission guidance. This remained the prerogative of COMAST. The other three task groups continued under the direct command of Bonser at Headquarters Australian Theatre.

With one exception, the administration and support of the Task Groups also remained along component lines. Due to their proximity to Task Group s33a(ii) the Air Traffic Controllers s33a(iii) drew their support from

the Iraq Group, instead of from the more distant Air Task Group in s33a(ii)

Despite the changes in command and control, and the reduction in the size of the deployment, Headquarters Australian Theatre retained multiple lines of communication to the MEAO. Overall, Task Groups s33a(ii) maintained separate command and support lines of communication. Falling under the control of Headquarters Joint Task Force were Task Group s33a(ii) who also had separate command and support lines of communication. Three of the task groups were also responsive to the Joint Headquarters for operational control. Overall, for a deployment of less than s33a(ii) personnel, the ADF maintained eight distinct lines of communication within the MEAO. The changes instituted after the transition to Operation CATALYST did not go far enough and left the deployment with an extremely complex and unwieldy command and control structure. Table 6.1 (overleaf) outlines the force structure for the Operation CATALYST phase of the deployment to the MEAO as of 29 June 2003.

The new organisation saw the resetting of the deployment's manpower cap to s33a with a provision for its automatic increase to s33a(i) if the RAN replaced a frigate with either of its Landing Platform Amphibious ships (*Kanimbla* or *Manoora*) as they had larger crews.

The reorganisation and reduction of forces allowed the ADF to simplify its AFPO network. From mid-July the deployment maintained only five postal addresses. s33a(ii)

s33a(ii)

The deployment's supply plan remained largely unchanged under CATALYST from that used for BASTILLE/FALCONER. Its

goal was to create a minimum logistic footprint in the MEAO. Headquarters Australian Theatre instructed Task Groups to source as much of their requirements as possible from Coalition assets. These included, but were not limited to: rations, accommodation, power, water, ablutions, airport services and warehousing. The deployment was also still dependent on its Coalition partners for all medical support above primary care.

JLC continued to control the sustainment process from the national support base to the handover point in the MEAO. Haddad did simplify his line of communication. He raised s33a(ii) after the closure of s33a(ii) job was to consolidate cargo and load aircraft for flight to the MEAO. The aircraft stopped at Adelaide and Perth before heading to the Gulf. The reduced activity in the MEAO allowed 1 Joint Movements Group to lower the number of sustainment flights from s33a(ii)

Support in the MEAO was along component lines, with each task group having its own s33a(ii) support unit. The support units for the RAN (the LSE) and the RAAF (two Expeditionary Combat Support Squadrons) remained the same, although the personnel did rotate.

The Army's s33a(ii) support elements were the ones that underwent the greatest change. The s33a s33a(ii) (ii) resumed its role as a warehouse, maintaining Australian stores that had not yet returned home or were awaiting disposal. This was not as significant as before, because this time the s33a(ii) s33a(ii) The s33a(ii) also took on a second role, serving as a reception centre for all personnel entering or leaving the MEAO. s33a(ii) s33a(ii) equipment and body armour. The s33a(also held a national reserve of s33a(ii) for issuance to the Australian contingent, just in

case. The other change in the Army's support arrangements was the establishment of a Force Logistic Team as a part of the Joint Task Group s33a(ii) Its role was to provide support to the two s33a(ii) based Task Groups, s33a(ii)

New units moving to the MEAO underwent pre-deployment training similar to that undertaken by troops departing for Operation s33a(ii) Although the process was now well-established, some units continued to experience problems due to shortages of particular types of stores. As a policy the ADF determined that all personnel were entitled to receive Personnel Demand Packs. The Air Traffic Controllers began force preparation in late April. At that time, s33a(ii) s33a(ii) were still unavailable as worldwide stocks had not recovered from the increased war demand.

AQIS

Before being allowed to re-enter Australia, all deployed personnel, along with their vehicles, equipment, ammunition and stores had to meet Australian Quarantine and Inspection Service (AQIS) standards. From the perspective of these regulations, the members of the ADF were no different to any overseas traveler returning from a business trip or holiday.

While the requirement to meet AQIS standards was an additional burden imposed upon a group of already exhausted military personnel who had put their lives at risk, it was an appropriate imposition. The Howard Government had justified its participation in the Coalition against Iraq on the basis of safeguarding national security interests. AQIS regulations were simply another expression of this priority. By keeping out potentially dangerous organisms, AQIS acted as a vital bulwark in the protection of the Australian environment and economy. The MEAO contained a number of pests, which if admitted to

the country had the potential to devastate Australia's grain and livestock industries. Like any invader, they had to be kept out.

The ADF accepted the need to meet AQIS protocols in order to minimise the environmental threat of the deployment's return home. Those serving overseas equally understood the serious danger that the introduction of non-native organisms posed for Australia. However, even with this acceptance, the need to meet AQIS protocols was to become one of the most onerous and resented tasks that deployed personnel had to undertake. This resentment came about as a result of the interplay of two poorly thought out and managed factors. They were:

- The failure of the ADF to appreciate the detailed nature of the AQIS requirements and to plan adequately to meet them.
- The failure of AQIS to provide clear guidelines, and to then enforce them consistently.

Another lesser factor was simply the eagerness of the troops to return home. They had done their job, and now awaited reunions with family and friends. From this perspective, the work required to meet AQIS's stringent requirements was an impediment to the boarding of transport for the trip back to Australia.

The ADF could have minimised or even avoided the hostility that the AQIS requirements occasioned among the troops through better planning and communication. The ADF was aware of the deployment's need to pass AQIS inspection. At the end of January, a Headquarters Australian Theatre instruction observed that the deployed forces were to clean their equipment in accordance with AQIS requirements prior to their re-entry into Australia.

Despite this being a known requirement, the ADF did little throughout the period of prudent planning and unit pre-

deployment work-ups to identify cleaning requirements, purchase by means of rapid acquisition equipment that was easier to clean than existing holdings, utilise shipping containers that were AQIS approved, and implement policies that would later ease the transition home. What was missing within the ADF planning hierarchy was a clear understanding of the implications of the AQIS requirements. Instead, in its post-activity report, one unit noted that the AQIS standard 'came as a shock'.

The task groups underwent AQIS inspection at a variety of locations. The ships of the Maritime Task Group did it at sea, the Special Operations Task Group and CDT-3 passed through at the [redacted] and the RAAF Task Groups met the requirement at their bases. For all involved personnel, the time spent in cleaning was exhausting and frustrating. It was heavy, manual, repetitive labour that had to be done quickly in order to meet strategic-lift flight schedules. The result was long hours undertaken by a force already tired from the physical rigours and mental strain of war.

The steps employed to prepare vehicles for return highlight the extent of the AQIS cleaning regime. The vehicle was first washed with a high-pressure hose. It was then given a wet inspection at the wash point. The vehicle was then moved to a dry stand where it received a dry inspection. Failure at either stage necessitated a vehicle's rewash. If the vehicle passed inspection it was placed in a shroud and wrapped in plastic in order to keep out dust. For loading onto either the *Kanimbla* or *Manoora*, the vehicle was put onto the back of a truck and driven to the harbour where it received another inspection. It then went by LCM8 to the ships anchored offshore. As it was driven on the ship's stern ramp, AQIS staff gave it another blast with a high-pressure hose before allowing it onto the vessel.

Washing, however, was the easy part of the cleaning process. Prior to that stage the troops had to remove all materials that could harbour dust and that, because of their nature, could not be cleaned. This included all rubber, foam and wood, which meant that the vehicles lost their windows, seats, cargo trays, engine hoses and tyres. In order to move the vehicles, JLC sent out replacement tyres that the troops installed. They then discarded the used ones and the spares. The troops also had to remove all electrical tape since traces of dust could be found in its adhesive.

The cleaners had to abandon anything made from or containing wood, canvas, or cordage. As a result the RAN left its Zodiac boats behind since they have a wooden frame. The air dispatchers wrote off their parachutes, and all tents remained in-theatre. With the exception of equipment that could be sterilised, all medical stores stayed behind. The clearance diver's post-activity report of 24 May 2003 included a list of materials it had to abandon. It contained 117 different types of items, including s33a(ii) s33a(ii) Some of this equipment might have returned to Australia later, but much of it, due to the nature of its composition, could never be cleaned to AQIS standards.

During pre-deployment preparations the Task Groups made widespread use of wooden crates and boxes to ship their gear to the MEAO. Now, because of the AQIS prohibition on the entry of wood, they had to replace all their containers and repack the equipment. They even had to rip out the wooden floors of shipping containers and replace them with other materials. s33a(ii) s33a(ii) s33a(ii) s33a(ii) s33a(ii) for ordnance. In this case even unopened cases had to

be replaced with a metal container. Moreover, if the troops had breached a crate, for example a box of rifle ammunition, they had to wipe down each cartridge individually before repacking them into metal containers. This involved tens of thousands of rounds. s33a(ii)

This risked damage during shipping and resulted in a less efficient utilisation of cargo space.

Once the crates and other items had been cleaned and AQIS approved, the packers wrapped them in plastic in order to prevent recontamination by dust. For the personnel in theatre, the primary complaint against AQIS was the shifting of cleaning standards. By contrast, for planners back in Australia the main concern was the damage the cleaning regime caused.

The RAN's ships also underwent a thorough cleaning routine. AQIS inspected the ships to make sure that they were clean of dust. During the campaign, the ships had acquired a thick coat of red dust from sandstorms that reached out to sea. The ships also had to replace their air intake filters. The *Anzac* discovered a particular problem. It developed a serious infestation of mussels in its water intake pipe. Inspection of the *Kanimbla* and *Darwin* discovered lesser plagues. The crews had

to flush out the mussels before AQIS allowed the ships to re-enter Australian waters.

The cleaning regime again brought into question Australia's access to Coalition assets during periods of high demand. At the US-controlled s33a(ii) which the Australian s33a(ii) formed a minuscule part, high-pressure wash points were in very short supply. This was not surprising. s33a(ii) had s33a(ii) wash points, and all were in use as units of the US military jostled for priority to return home. After drawing the ire of the US base commander for grabbing any wash points left temporarily vacant, the Australians received a single dedicated cleaning space of their own, with the injunction that they could not use any others, even if they were not in use. To improve its access, the s33a(ii) purchased ten high-pressure hoses in s33a(ii) and surreptitiously tapped into the base water system.

Access to wash points was a serious issue not only because cleaning determined a unit's readiness to return home, but also because Task Groups had to meet tight transit deadlines resulting from strategic lift priorities. As during the deployment phase, Australian movement was in part determined by Coalition control of strategic lift assets. US air traffic controllers allocated set windows during which Australian aircraft could land and take off. Apron space was in critically short supply, which necessitated a minimum turnaround for all aircraft in order to make way for incoming transports. The Australians usually had s33a(ii) to unload and load an aircraft, a doable task but one which required all materials and personnel to be ready before the aircraft's arrival. The staff at the s33a(ii) made all of their windows, but only by resorting to eighteen-hour days with the occasional forty-eight hour shift.

To the troops in the Middle East, the cleaning protocols appeared to be highly subjective, with each inspector imposing a different standard. What made the situation even worse was that AQIS practice was to rotate staff among work points. Every day the cleaners had to face a different inspector who imposed a different set of criteria. For example, at the Special Forces Forward Operations Base, an AQIS representative allowed the use of a twenty-foot container with a wooden floor. Upon arrival s33(a)(iii) a different inspector demanded the floor's removal, which necessitated the container's emptying and repacking. In another case an inspector allowed vehicles to move to the harbor on the back of a truck covered only with a shroud. Upon arrival a different inspector queried the absence of wheel covers and threatened to have the vehicle subjected to the entire washing process again. The matter was resolved once the different standards were highlighted, but it was a confrontation that the two parties could have avoided.

The cleaning and inspection process resulted in a considerable worsening of the damage that vehicles and equipment had sustained during combat operations. None of the vehicles that returned to Australia was in a serviceable state. Land Rovers that had incurred s33(a)(iii) of repair liability from operations now needed 150 hours of work in order to bring them back into service. The use of high-pressure hoses on the interior of vehicles resulted in water damage to crank cases, necessitating complete engine rebuilds. In addition, many vehicles had to have their entire electrical systems replaced due to water damage.

The solution for future operations, as expressed by a senior logistic planner, is not to lessen the cleaning standard and thereby accept greater pest risk, but to seek better coordination between AQIS and the ADF. Defence needs to build into its planning routines an awareness of AQIS

requirements in order to facilitate the return of equipment. In addition, the ADF needs to identify better shipping container materials to reduce its dependence on troublesome wooden crates. Defence should also seek less invasive cleaning methods.

Another issue is the question of who should bear the cost of the damage and the write-off of equipment resulting from the imposition of AQIS cleaning protocols. Two issues are involved, namely the fiscal expenditure and the loss of military effectiveness. The fiscal issue is the simpler of the two. The Australian Government and the Department of Defence must anticipate the need for additional charges against the budgets of future operations. The second is more complex. After the deployment's return, the ADF faced a short-term capability decline, as much of its equipment employed in the MEAO was unserviceable pending its repair or replacement. This issue goes to the heart of the ADF's inventory policy. If the Government wishes to maintain a high operational tempo it must provide its forces with greater inventory depth of all equipment types.

As a final measure, JLC had engaged s47G s47G to provide entry services at points of arrival in Australia. s47G was to further clean incoming equipment if it failed to meet quarantine standards. However, the cleaning regime in the MEAO proved so thorough that the ADF required only minimal assistance from s47G

The Route Home

To bring the troops and equipment back to Australia, JLC established a new return line of communication. s33a(ii) s33a(ii) focus remained the dispatch of sustainment stores to the Middle East. The return's line of communication became the responsibility of s33a(ii) All incoming air cargo arrived in Darwin, where it underwent quarantine inspection from AQIS, identification processing by

the staff of s33a(ii) repacking if necessary, and reconsolidation into new loads for on-shipment to the appropriate JLC or RAAF warehouse. The one air arrival exception was the aircraft carrying 5 Aviation Regiment's CH-47 helicopters. These went directly to their base in Townsville by Antonov 124. Most equipment and personnel traveled on chartered aircraft. s33a(ii) s33a(ii)

The RAN's bases at Garden Island in Sydney and Sterling in Rockhampton were also involved in the return of stores. In order to reduce the high cost of air charter, the ADF made greater use of sea transport for the return to Australia than it had for the deployment to the MEAO. Joining the *Kanimbla* in the Persian Gulf was the *Manoora*. The ships' SADs filled their vessel's cargo hold with returning vehicles and stores. Chart 6.2 (overleaf) outlines the return to Australia supply chain.

The ADF also dispatched several specialist teams to assist units in their preparations for the return home. The main one was called the s33a(ii) It built upon the staff at the s33a(ii) It added s33a(ii) s33a(ii) s33a(ii) The members of the s33a(ii) were s, and units remained responsible for the physical labour needed to clean and pack their equipment.

The Joint Ammunition and Logistic Organisation provided a four-person Joint Inspection Team. Its function was to inspect and render safe all captured weapons and explosive ordnance, and to conduct safety checks on all national ammunition prior to loading. They also disposed of ordnance that was unsafe or not cost effective to bring back to Australia.

CHART 6.2
Return to Australia Supply Chain

The Material System Branch sent its Deployable Logistic Systems Support Teams back to the Middle East, this time to take apart the JODs belonging to the s33a(i) s33a(ii) s33a(ii))

The deployed force's return to Australia went relatively smoothly, although a few problems did occur. The major one related to the intransigency of RAAF elements in using the s33a(ii) JLC required returning units to enter their equipment and stores into s33a(ii) and facilitate their return to the correct unit holding or warehouse. Despite this mandate the F/A-18 contingent opted not to use the tracking system, and packed and dispatched all their equipment and stores without entering any data into s33a(ii)

The consequence of this insubordination was predictable. Upon the equipment's arrival in Darwin, the staff of Joint Logistic Unit North had to sort through the F/A-18's shipment to correctly identify each item, and determine whether they should send it to a particular squadron base or any one of several warehouses. To do this they had to enter the items into s33a(ii) a step that would have been more efficiently done in the MEAO. This greatly added to the work of Joint Logistic Unit North and complicated the return of stores to the national inventory. In a post-activity assessment a JLC officer commented on the Air Force's decision not to use s33a(ii) He wrote that 'you have not in any way endeared yourself and your organisation to the greater ADF logistics community and have done much to bring RAAF logistics into disrepute.'

Conclusion

Operation CATALYST remains an active operation. At the time of this writing (late 2003), over 800 members of the ADF are in the MEAO. This figure minimises the ADF's contribution to the rehabilitation of Iraq, however. It

represents the upper figure at any one point in time, not the number of personnel that have served under CATALYST. Troop and ship rotations have taken place, which add considerably to the total figure of defence personnel who have served to the Middle East.

A unit's arrival home was an occasion for celebration. Reunions with family and friends were followed by parades and greetings from the public. Upon return, most veterans of the Middle East received some well-deserved leave. For some, it was all too brief as the requirements of Operation ANODE, Australia's intervention in Solomon Islands, saw them again heading overseas. In fact, there was little opportunity for rest. Equipment had to be repaired, units reconstituted, training exercises prepared, and personnel readied for their next assignment. The ADF was busy preparing for its next task.

CONCLUSION

By any measure of military effectiveness, the Coalition's campaign against the armed forces of Iraq was a success. The combined might of the United States, the United Kingdom and Australia overwhelmed the enemy's defences and destroyed its ability to resist. From the campaign's beginning the ground, sea and air belonged to the Coalition. Yet problems remain. Supporters of the deposed Hussein regime, sectarians, gangsters, militants, fundamentalists, terrorists and anti-Westerners have waged a non-conventional war against the occupation and the nascent Iraqi Government. Coalition soldiers, Iraqi government officials, security personnel and civilians continue to become casualties in large numbers. However, there is little doubt that the former regime is gone. What is uncertain is when stability and peace will return, and a new secure Iraqi state emerges that is able to stand on its own.

The battlefield success enjoyed by the Coalition was a result of its vast superiority in the art of war over the enemy. While fielding greater numbers, the Iraqi Army was a backward organisation, more suited to the suppression of its own people than standing up to the power of a contemporary Western military force. However, the poor quality of the Iraqi military, and the conflict's rapid conclusion, did not offer an adequate test of the ADF's combat capability. The enemy resisted, but from the beginning was in a hopeless position. An

accurate assessment of ADF skills and weaknesses must await the challenge of a more capable opponent.

In fact, the Iraq War was more of a test for Australia's logisticians than its combat arms. No matter the strength of the enemy's will, the support arms still had to deploy and sustain a combat force on the other side of the world and return it home as required. These tasks required a high degree of professionalism, and logisticians demonstrated that they had the necessary skills. Yet, even the suitability of the Iraq War as a measure of the logistician's craft can be overstated. The war was too short to test fully the Australian line of communication. In particular, the sustainment phase required a longer and more intensive operation before Australia could be assured that its logistic assets were up to the challenge of a war that more directly threatened national territory or interests.

If anything, the greatest logistical legacy of the war has been Australia's continuing reliance on its partners for much of its force's support. The Australian nation has a tradition of logistic dependency dating from the days of Empire. In the war in Iraq this dependency reached levels not seen since the First World War, when Australia's third and fourth lines of support were provided virtually in their entirety by Britain. In that conflict, Australia provided men, rifles, uniforms and little more. This practice does have benefits. It allows a small nation, with a relatively under-developed military capability, to 'punch above its weight'. By focusing on the combat arms at the expense of administrative elements, Australia is able to field more warriors to an ally's appreciation.

The consequence of this policy, however, is an unbalanced force that lacks logistic depth, and does not have the ability to sustain operations for an extended period of time or at a greater than anticipated intensity. To change, if change is desired, would not be an easy task, as the preference for combat

over logistic elements is deeply engrained in Australia's political and military tradition.

Throughout Operations BASTILLE, FALCONER and CATALYST, misjudgments were made and errors occurred. The overall success of the mission can give the impression that these problems were fairly trivial, but this was not the case. In fact, the ADF was very lucky. At a number of points the operation encountered issues whose nature was so serious that they were potential war-stoppers. Lesser problems could have impaired the deployment's effectiveness and its ability to complete its missions. Luck, while a valuable asset, is an unreliable and fickle capability, and in the future the ADF would do well to reduce its reliance upon its beneficence.

While this book was not intended to be a lesson-learnt document, it would be remiss in failing to highlight some of the key issues that shaped the ADF's role in the campaign and the conduct of the deployed task groups. Perhaps the decision that had the greatest effect on the deployment was the artificially established manpower cap. Set very early during the period of 'prudent planning', the figure of [redacted] personnel became an immovable benchmark that planners were unable to adjust despite changes in the operational requirement. For reasons that have little to do with the mission's realities, senior commanders did not seek an increase in establishment. Locking the deployed forces into a manpower straitjacket before the complexity of the mission was understood was a mistake. Refusing to reconsider the manpower limit compounded that mistake. The planning of future operations must incorporate flexibility of manpower levels so that field commanders can respond and adjust to the uncertainties of war.

The decision not to deploy a joint headquarters to the MEAO must also be questioned. Bonser did control the operation from Headquarters Australian Theatre in Sydney,

but its low staffing levels and the distance from the theatre of operations limited his ability to shape the operation's direction. Much of the operation's planning and conduct devolved to Bonser's component commands, as well as to Headquarters JLC.

The success with which the armed forces of the United States have integrated joint operations into their method of waging war has conclusively demonstrated the effectiveness of joint operations. An understanding of the benefit of a joint environment is not new to Australian planners. The ADF's three services have struggled with its integration for more than two decades. The war against Iraq was the first time the ADF had an opportunity to operate on the joint level in a real situation. Its leaders failed to seize the chance. Instead, the deployed task groups responded in Australia's traditional manner. They integrated themselves into the command, mission and logistic structure of the parallel service of a senior partner, in this case the United States. If jointness is to succeed, Australia's three services must push beyond their traditional comfort zone of linking up with a superior partner and learn instead to fight together. The Iraq War suggests that having the ability to conduct joint operations will grow in importance. If the ADF is to maintain an operational edge it must learn to fight as a joint organisation.

The need for a uniform IT architecture was apparent from the time of Australia's intervention in East Timor in 1999. From that point to the onset of preparations for Operation BASTILLE, little was done to institutionalise uniform IT systems across the three services. Each service continued to maintain its own software, some more than one. It was risky for JLC to insist upon the use of its logistic systems on the eve of a conflict, but it needed an impending war to garner institutional impetus for their acceptance. Yet even during the conflict some units

remained resistant to the requirement to use the mandated systems, and take-up was slower than it should have been.

The existence of the secret compartment and the late commencement of tactical planning revealed other weaknesses in the ADF's logistic organisation, and, more significantly, its readiness for expeditionary warfare. Many units had acute difficulties in identifying the operation's requirements and in completing their pre-deployment preparations. Nearly all units deployed without a full complement of stores, or they underestimated their requirements. It would be tempting to blame these problems on the short amount of time allowed before a unit's movement, but that would be a mistake which would only hide more pressing concerns of professional competence.

The units of the ADF must have the capability for short-notice deployment. Units should be aware of their core operational requirements before the need to deploy becomes apparent. Of course, every mission requires some adjustment in material requirements, but these should only be modifications to an already thought-out and practiced mobilisation scheme.

JLC also has a role to play in advance of a deployment. The course of the war showed that the ADF maintains a reserve of key stores that is questionably low. In addition, the nation's manufacturing sector is too slow to respond in a timely manner to sudden increases in demand. Planners must reconsider their inventory management policies and liaise more closely throughout the national support base in order to provide greater depth of store-keeping and to facilitate urgent replacement purchases.

Tasked with the need to support the nation's armed forces, the logisticians of the ADF rose to the occasion. It must not be forgotten that an inferior opponent, such as the Iraqi Army, did not provide a true test of the effectiveness of the ADF's warfighting and support capabilities. However, in

Operations BASTILLE, FALCONER, and CATALYST, the ADF again distinguished itself as among the world's best military organisations. A critical element in this achievement was the professionalism of the nation's military logisticians. Their part in the Iraq War once again demonstrated the central role of the logistician in the waging of war.

AFTERWORD

Since the research and writing of this book, there have been considerable modifications in the organisation of ADF logistics. While this work did not play a part in bringing about these changes, the conclusions it drew have proved prescient. Among those anticipated by this work were:

- Improvements in ADF strategic lift capability with the acquisition of C-17 aircraft. The recent decision to acquire two LHDs will further augment the ADF power projection capabilities.
- Simplification of the ADF's command structure with the raising of Joint Operations Command.

Further improvements in the ADF's logistic systems were foreshadowed. For example, the roll-out of JP2077 will go a long way towards providing the ADF with a single, networked logistic management system as well as an enhanced material tracking capability.

Further questions remain in other areas. The ADF has demonstrated great interoperability with the forces of other nations, both in Iraq and Afghanistan. However, the objective of ADF jointness remains untested. In 2003, ADF forces in the MEAO had little to do with each other—either across task groups or service lines. Australia again embraced its traditional

practice of integration with the forces and command structure of a senior ally.

While the willingness of allies to welcome Australian officers into their headquarters is a notable achievement, it does little to test the ability of the ADF to work among itself. The lack of support provided to CDT-3 in 2003 exemplifies this problem. Unless the ADF's institutional commitment to jointness improves, there remains the real possibility that this neglect will be repeated on future operations.