

CREATING A POTENT JOINT FORCE:

THE PRACTICAL EVOLUTION OF INTER-SERVICE COOPERATION

Stephen Edgeley





CREATING A POTENT JOINT FORCE:

THE PRACTICAL EVOLUTION OF INTER-SERVICE COOPERATION

Stephen Edgeley





This work is licensed under Creative Commons BY License Attribution 4.0 International. To view a copy of this license, please visit http://creativecommons.org/licenses/by/4.0/

Disclaimer

The views expressed in this work are those of the author and do not necessarily reflect the official policy or position of the Department of Defence, the Royal Australian Air Force or the Government of Australia. The Commonwealth of Australia will not be legally responsible in contract, tort or otherwise, for any statements made in this document.

ISBN 9781925062533 (E-book) 9781925062540 (paperback)



A catalogue record for this book is available from the National Library of Australia



Published by:

Air and Space Power Centre

Hangar 46 14 Point Cook Avenue Canberra Airport ACT 2609 AUSTRALIA

Email: airpower@defence.gov.au

Website: https://airpower.airforce.gov.au

Foreword



It is my pleasure to present Air Vice-Marshal Stephen Edgeley's monograph for publication in the Beyond the Future Force series. AVM Edgeley's PhD dissertation submitted to the University of New South Wales Canberra forms the basis of this monograph, and I am delighted that the Air and Space Power Centre is publishing it. The Beyond the Future Force series intends to encourage readers to challenge the current model of how Air Force contributes to the joint force. AVM Edgeley applied considerable academic diligence to understand how Air Force can prioritise 'jointness' amidst organisational behaviour and cultural obstacles.

I highly commend AVM Edgeley's dedication in pursuing and completing his doctoral studies. His work enlightens the challenges in achieving a truly integrated military that is capable of delivering national power in a complex geostrategic environment. AVM Edgeley uses historical and contemporary evidence to provide an objective assessment of Air Force's tendency to prioritise certain capabilities ahead of others. Highlighting organisational behaviour and culture as potential hindrances to Air Force's prioritisation of integration with the joint force, AVM Edgeley offers solutions within the means of Air Force and the ADF to pursue.

This monograph is a timely catalyst as Air Force prioritises how it contributes and leverages the integrated force at a time when the Defence Strategic Review rightly demands greater ADF and whole of Government integration. I encourage you to read this monograph with a pragmatic viewpoint.

Air Marshal Rob Chipman AM CSC

Chief of Air Force

About the author



Air Vice-Marshal (AVM) Stephen Edgeley was born in Cyprus during his father's operational tour to Royal Air Force Akrotiri. He joined the RAAF in 1987 as an Air Traffic Controller and successfully completed a number of operational tours at domestic bases within Australia. He was also an instructor and programming officer at the School of Air Traffic Control in East Sale.

AVM Edgeley's first joint posting was to the Australian Defence Force Warfare Centre as a joint planning instructor. Since that posting, he has enjoyed a privileged joint career having been the Chief of Strategy and Plans within the Air Operations Centre at Headquarters Joint Operations Command, the Chief

of Staff to the Vice Chief of the Defence Force, the Director General Pacific and Timor-Leste within the International Policy Division and most recently as the Commander of the Australian Defence College.

AVM Edgeley has also served on operations in Somalia, as part of UNOSOM II, Timor-Leste within INTERFET headquarters for Operation WARDEN, and in Iraq, as part of Operation FALCONER, where he was the first Operations Flight Commander at Baghdad International Airport.

AVM Edgeley is a graduate of the Joint Command and Staff College in the United Kingdom and the USAF School of Advanced Air and Space Studies (SAASS), and holds two masters degrees. AVM Edgeley has a PhD from the University of New South Wales, which was conducted as part of the RAAF and Sir Richard Williams Foundation Air Power Scholar program.

AVM Edgeley is married to Pippa, who has proudly seen service within the Princess Mary's Royal Air Force Nursing Service (PMRAFNS). AVM Edgeley has three wonderful children, Indyanna, Connor and Lilly-May.

Synopsis

Can the Royal Australian Air Force (RAAF) correctly prioritise jointness? While the RAAF may display a strategic desire to be joint, the combined effects of organisational culture and behaviour make it unlikely that it will always place the appropriate priority on essential joint activities. Internal to the RAAF, the propensity towards prioritising individual Service capabilities is created by the organisation's culture and a rewards system that teaches the individual to favour the RAAF rather than supporting joint. External to the RAAF, the reduced emphasis on joint capabilities is primarily due to the lack of strategic integration between the Services created by the politics of organisational behaviour. The question remains: Is the RAAF capable of removing the organisational barriers that have historically made it difficult to apply the appropriate level of priority to joint?

I will start with two historical case studies that exemplify RAAF's organisational tendency to incorrectly prioritise specific joint capabilities. Next, I review concepts within organisational theory to build a theoretical framework through which RAAF's organisational behaviour and culture can be better understood. This understanding of the theoretical underpinnings of organisations will better explain RAAF's behaviour and facilitate the examination of potential solutions. Next, I turn my attention to organisational culture where I discuss the complexity of RAAF's internal culture with a multitude of inter-connected factors that combine to create a tendency to focus on Service capabilities which, in turn, could manifest as cultural barriers to joint. I examine whether the organisational behaviour within the strategic layer of Defence promotes a parochial focus on the independent capabilities of each of the Services. At the strategic level, inter-service rivalry is consistently presented as proof that the Services stubbornly refuse to organisationally embrace jointness.

By understanding the complex issues hindering RAAF's prioritisation to jointness, this book ultimately aims to find potential solutions to address perceived issues not just from within the RAAF but also on organisational relationships with other Services. While the Australian Defence Force's (ADF) organisational approach to applying jointness has, in the most part, mirrored with the militaries of the United States and the United Kingdom, other countries have chosen not to adopt jointness in a similar manner. Alternative methods in applying jointness could alleviate some of the cultural and behavioural issues being experienced by the ADF. Finally, I draw my conclusion based on all the analysis of the various issues to answer the question of whether it is possible for the RAAF to appropriately prioritise jointness. I focus on potential solutions that could enable the RAAF to remove those barriers that are currently impeding the organisation's strategic desire to be joint. Some of the proposed solutions, and in particular those relating to cultural issues, will be within the purview of the RAAF to address. However, many of the resolutions will need a wider ADF commitment to address overall organisational issues that tend to exert an equal amount of influence on each of the Services' behaviour.

Contents

Foreword	d	iii
About th	ne author	iv
Synopsis	3	ν
Chapter	r 1 Introduction	1
1.1	The purpose of joint	
1.2	The decision to be joint	
1.3	The evolution of joint	
1.4	The Air Force and joint	
1.5	Can the RAAF prioritise jointness?	7
1.6	Coverage	7
1.7.	Limitations	9
Chapter	r 2 The relative priority of jointness	11
2.1	Case study 1: Air Force support to Army	12
2.2	Two decades of disinterest	14
2.3	Lack of priority exposed in Vietnam	19
2.4	Reasons for the lack of preparation	21
2.5	Case study summary	24
2.6	Case study 2: air-land integration	25
2.7	Forward air control	27
2.8	Joint precision airdrop	32
2.9	Air liaison officers	38
2.10	Case study summary	43
2.11	Case study comparison	44
2.12	Air Force capability the priority	45
2.13	Ineffective inter-service communication	47
2.14	Summary	48
Chapter	r 3 A theoretical framework for organisational culture and behaviour	51
3.1	An introduction to organisation theory	51
3.2	Organisational behaviour: the RAAF as a bureaucracy	
3.3	Bureaucratic tendencies	58
3.4	Political pursuit of power	60
3.5	Conflict as an extension of politics	61

3.6	Sub-groups as sources of conflict	62
3.7	Consequence of conflict	63
3.8	Organisational culture	65
3.9	The definition of organisational culture	67
3.10	The elements of organisational culture	69
3.11	The impact of organisational culture	72
3.12	Summary	74
Chapte	r 4 When culture creates a 'blue' focus	77
4.1	Creating a basic assumption	78
4.2	The motivation of the founders	79
4.3	The founding vision and theories	81
4.4	A history of trauma and positive reinforcement	83
4.5	Lessons learnt from the Royal Air Force	83
4.6	Lessons learnt from the RAAF's early history	86
4.7	The aviator's basic assumption	89
4.8	The supporting shared beliefs	91
4.9	The independent capabilities of air power	92
4.10	One provider of air power	97
4.11	Supporting cultural aspects	101
4.12	Force generation focus	102
4.13	The value of a specialist	107
4.14	The perception of joint roles	110
4.15	The narrow leadership tribe	113
4.16	The importance of air combat pilots	118
4.17	The cultural symbology of aircraft	120
4.18	The role of education	123
4.19	Summary	130
Chapte	r 5 The primacy of Service domains	135
5.1	Being the best Service	136
5.2	Building the optimum force	137
5.3	Empires built through influence	139
5.4	Supporting behaviours	142
5.5	Specialist joint compartments	143
5.6	Strategic facade of jointness	145
5.7	The importance of beliefs	147
5.8	No joint policeman or boundaries	148
5.9	The effects of competition and conflict	151

Inter-service rivalry	151
The carrier debate	156
The battlefield helicopter decision	161
When context matters	166
Summary	167
r 6 Different approaches to jointness	169
Canadian Armed Forces	170
The necessity for unification	170
The implementation of unification	172
The flaws of unification	176
Unification slowly undone	182
The Services re-created	188
Unification is not jointness	190
Unification as an approach to jointness	192
Israel Defence Forces	192
Integrated approach to jointness	193
Success in conventional conflict and deterrence	195
A perceived failure to be joint	197
Israel's evolution of jointness	200
A decision not to integrate	202
Prioritising the domain over joint integration	203
Integration as an approach to jointness	208
Summary	209
r 7 Conclusion	211
Joint solutions	211
The end of the balanced force	213
A strategy to enable jointness	215
Less joint structure in force design	217
Giving the joint policeman teeth	218
Creating and enabling joint culture	219
The importance of joint leadership	221
A final word on change	223
	The battlefield helicopter decision When context matters Summary 6 Different approaches to jointness Canadian Armed Forces The necessity for unification. The implementation of unification. Unification slowly undone The Services re-created Unification is not jointness Unification as an approach to jointness Israel Defence Forces Integrated approach to jointness Success in conventional conflict and deterrence A perceived failure to be joint. Israel's evolution of jointness. A decision not to integrate Prioritising the domain over joint integration. Integration as an approach to jointness Summary 7 Conclusion Joint solutions. The end of the balanced force A strategy to enable jointness. Less joint structure in force design Giving the joint policeman teeth Creating and enabling joint culture The importance of joint leadership.

1 Introduction

Joint is defined in the Australian Defence Force (ADF) glossary as activities, operations or organisations in which elements of at least two Services participate. The innocuous nature of this definition stands in complete contrast to the actual evolution of joint within the ADF, which has been protracted, complex, politically charged and quite often cut-throat in nature. Perhaps the best place to start explaining that provocative opening statement is to introduce joint, a military concept that has been widely accepted as a necessity but that normally suffers from a great deal of over-simplification.

1.1 The purpose of joint

The use of the word joint in its military context is not new, but like so many of the terms used by the ADF its origin comes from the United States military. Its heritage can be traced back to the lessons learnt from World War II, where unification of command was seen as a method of creating a more effective fighting force through an increase in operational synchronisation and a reduction in inter-service rivalry.

This apparent multiplicity of purpose is one of the defining features of joint. It means different things to different people.² Though there are numerous meanings of joint within the military context, there is general acceptance that as a concept it has three main purposes.

The primary purpose of joint is to achieve efficient integration of service capabilities at the level of the joint force commander, which in Australia is often referred to as the operational level of command. The second purpose of joint is the creation of organisational efficiency by the avoidance of duplication through the elimination of overlapping missions and roles.³ The third purpose of joint is to create a more effective level of cooperation between the Services at the strategic level of command to ensure that the design, generation and sustainment of military capability creates a joint force that is effective, efficient, integrated and responsive.

Australian Defence Force, Australian Defence Force Doctrine Publication (ADDP) – D – *Foundations of Australian military doctrine*, Third Edition, Defence Publishing Service, Canberra, July 2012, p. 82

² Don M Snider, 'The US military in transition to jointness: surmounting old notions of inter-service rivalry', *Airpower Journal*, Fall 1996, vol. 10, no. 3, p. 19

³ Seth Cropsey, 'The limits of jointness', Joint Force Quarterly, Summer 1993, no. 1, p. 72

Much like the progress experienced in the United States and the United Kingdom, the ADF's implementation of these three purposes of joint was, and continues to be, a protracted process that has achieved varying levels of success.

In terms of integration at the operational level of command, Australia has been very effective in creating a joint focused operational headquarters. Through the determined efforts of many chiefs of defence force, and in particular the actions of General Peter Gration and General John Baker, the ADF has slowly been able to increase the level of joint operational integration. This has been achieved through acts such as the creation of Headquarters ADF in 1984, the removal of the Service chiefs from the operational chain of command in 1987, the establishment of Headquarters Australian Theatre in 1996 and the creation of Headquarters Joint Operations Command in 2004.⁴ In 2007, Headquarters Joint Operations Command was reorganised from a component headquarters model, where planning and operational monitoring was completed by Service-based teams, to an integrated headquarters model, where those tasks were now completed by joint teams comprising all three Services. The final step was completed with the opening of a purpose-built headquarters in Bungendore, New South Wales, in March 2009.

While the ADF may well have chosen the joint path to avoid duplication in enabling and support services, it was left with very little choice in the 1980s and 1990s when a procession of productivity reviews, such as the Commercial Support Program, Defence Efficiency Review and Defence Reform Program diligently looked for any opportunity to reduce the uniformed workforce numbers of all three Services. During this period the avoidance of duplication, the centralisation of enabling services and the civilianisation of support staff were organisational and political imperatives for each of the Services. That said, the creation of organisations such as Joint Logistics Command, Joint Health Command and the Australian Defence College have clearly improved the quality, responsiveness and cost effectiveness of key joint functions.

The one area in which the ADF has been less successful is the integration of the Services at the strategic level. This is a point that the First Principles Review identified:

the current organisation has too many voices to be effective. It lacks clear, single points of accountability for outcomes, is more focused on detail than alignment with policy or strategy, and rewards federated rather than enterprise behaviour.⁶

Prior to the First Principles Review, some progress towards strategic integration had been made though the Joint Capability functions within the Vice Chief of Defence Force Group, the main focus

⁴ Summary of joint activities created from Eric Andrews, *The Australian centenary history of defence, volume 5, The Department of Defence,* Oxford University Press, Melbourne, 2001

⁵ Mark Thomson, 'Defence reform: the Australian experience', address to the Atlantic Council workshop on comparative defence reform, Ottawa, Canada, 21 June 2013

Australian Department of Defence, *First Principles Review: Creating One Defence*, Australian Government Publishing Service, Canberra, 2015, p. 20. The First Principles Review was a reform program within the Australian Department of Defence designed to ensure that the organisation was appropriately structured and organised to deliver the 2016 Defence White Paper.

of which was to attempt to integrate the design of the future force and to act as the joint capability manager for several complex joint projects. These functions tended to be under-resourced and poorly supported, and did not really change the stove-piped view the Services maintained. This trend may be reversed with the introduction of a new Defence process, known as the Capability Development Life Cycle, that contains procedural changes, behavioural modifications and an organisational restructure designed to ensure that a vigorous joint focus is maintained during the acquisition and sustainment of capability. While there is strong potential for improvement, until this occurs the lack of effective integration at the strategic level will continue to have significant effects on individual Service behaviour.

1.2 The decision to be joint

Another defining feature of joint is that the Services need to actively decide to support its concepts and activities. Like most large organisations the decision on what Defence undertakes is based on the funding that the activity is allocated and who gets the allocation.

The operating budgets of large joint organisations within Defence such as Joint Operations Command or Joint Logistics Command are funded separately from the Services, though the personnel costs associated with their operation are still borne by the individual Services. Outside of the dedicated joint organisations, funding for joint activities needs to come from the individual Service budgets. The vast majority of those individual budgets are consumed by activities that require pre-allocated funding such as capability acquisition, capability sustainment and personnel operating costs. These are often referred to as non-discretional activities because they involve a contracted commitment to either a commercial entity or an employee of the Service. The remainder, which is normally referred to by the Services as their operating budget, tends to be a small proportion of their overall budget.

The operating budget is then further divided between the individual elements within a Service to allow them to operate and exercise current capability, and to train and generate future capability. The funds allocated within this operating budget are rarely enough to complete the desired tasking to meet their perceived capability requirements, and within the Services the allocated funding needs to be prioritised to those tasks that create the most capability gain. For the Services to elect to undertake joint activities, outside of the major joint organisations, the funding needs to be sourced from an already overburdened operating budget.

The significance of this funding arrangement is that for the Services to choose to allocate funding to joint activities they are required to prioritise it over their own capability generation. To support joint the Services need to make an active decision to do so. It is not simply a passive decision on whether they choose to support joint activities, it must be a clear decision to prioritise, and therefore place more value on a joint activity over an individual Service capability generation

⁷ Australian Department of Defence, First Principles Review: Creating One Defence, p. 31

task. This requires somebody from within the Service to champion the joint activity and to value it above the other tasks they have been allocated. For joint activities to be funded they need to be valued by an individual within the Service who has enough influence to change funding priorities. Due to the active nature of the choice that needs to be made, the case for supporting a joint activity needs to be compelling.

1.3 The evolution of joint

Another feature of joint is that our understanding of its nature is constantly evolving. Advances in war-fighting concepts and technology regularly drive a change in the expectations and demands that we place on it. In the early stages of warfare, operating joint tended to be limited to the Services fighting in geographical proximity. As their experience in fighting together grew, they learnt that they could be more effective by synchronising their individual Service capabilities under a joint commander. The next stage of joint emerged when defined roles and missions were assigned to each of the Services to reduce duplication and improve effectiveness through specialisation. This specialisation in roles and missions now meant that the Services relied on each other to be able to provide the required capabilities needed to make an effective joint force. The most recent evolution of joint, which is often referred to as network-centric warfare, was designed 'to generate tempo, precision and combat power through shared situational awareness, clear procedures, and the information connectivity.'8

With each evolution in joint a subsequent progression in the nature of the relationship between the Services has also been required, from cohabitation to cooperation to coordination and finally integration. The Services' preparation for joint operations has also needed to change. With each evolution in the nature of jointness the increased level of complexity has placed greater demands on the Services to apply more resources to training, planning and the integration of combat platforms and command and control systems. The evolution of joint continues unabated today with the introduction of more advanced technology platforms, such as fifth generation aircraft: platforms which contain technology that can only be fully utilised through whole-of-force integration and by linking them through a series of joint command and control systems that can successfully exploit the significant increase in shared awareness and responsiveness. This evolution in military technology will once again change the nature of the Services' relationships.

This continuing evolution of Service relationships has been aptly described in the United States by suggesting that 'if jointness was the word for inter-Service cooperation in the past, "interdependence" more accurately captures this relationship in the twenty-first century ...

⁸ Australian Defence Force, Australian Defence Force Doctrine Publication (ADDP) – D.3 – Joint operations for the 21st century, Defence Publishing Service, Canberra, May 2007, p. 12

Jointness reflects the desire for Services to work together. With interdependence, working together is no longer an option but rather a necessity.'9

This evolution will require greater cooperation between the Services at the strategic level to ensure that the advantages created by advancing technology can be fully utilised to improve the combat effectiveness of the joint force. The ADF will need to rely on improved strategic level integration to ensure that the future force is joint by design. The 2016 Defence White Paper is also calling for a change in the ADF's understanding of joint by stating:

in the past, the capability investment planning process has been too heavily focused on individual military platforms ... This has often been at the expense of funding the vital enabling and integrating systems that allow the ADF to bring capability elements together to deliver more potent and lethal joint combat effects. ¹⁰

The current evolution in the nature of jointness will require an increased level of cooperation and integration at the strategic level, something that has been extremely difficult for the ADF to achieve because of the ability of the Services to choose how much they support joint capabilities and organisations.

1.4 The Air Force and joint

The RAAF's relationship with joint is an extraordinarily complex affair that too often suffers from generalisation. For example, in *Going solo: the Royal Australian Air Force 1946–1971*, Alan Stephens wrote:

the politics of inter-service relations made it vital for the RAAF to give the Army high-quality support, even if its pilots found such tasks as resupply and reconnaissance prosaic. Too often that support was provided grudgingly, sometimes not at all.¹¹

He suggests that this was short-sighted and created by 'the tendency for airmen to focus on the "war winning" components of their business, namely, strike and control of the air. One interpretation of Stephens' comments could be that the actions of the RAAF, by not providing the appropriate support to Army, demonstrated a poor organisational attitude towards jointness, with the inference being that the RAAF purposely chose to prioritise individual Service capabilities above its joint responsibilities.

⁹ Ellwood P Hinman, Thomas E Jahn and James G Jinnette, *AirLandBattle 21: transformational concepts for integrating twenty-first century air and ground forces*, Ashgate Publishing Limited, Surrey, England, 2009, p. 8

¹⁰ Australian Department of Defence, 2016 Defence White Paper, Australian Government Publishing Service, Canberra, 2016, p. 31

¹¹ Alan Stephens, *Going solo: the Royal Australian Air Force*, 1946–1971, Australian Government Publishing Service, Canberra, 1995, p. 313

¹² Ibid.

Though aspects of that interpretation may be true, it is slightly simplistic to suggest that the displayed behaviour of an organisation directly equates to its attitude. In this case, it neither adequately describes the RAAF's relationship with joint nor considers the complex nature of organisational behaviour. In perhaps one of the most strongly worded statements by the RAAF in support of joint, Air Marshal Ray Funnell, a former Chief of Air Staff, wrote:

air power isn't the most important part of the nation's combat power ... it is one element of national power. That air power must be part of a coherent and integrated strategy in which all forms of combat power - land, sea and air - have important roles.¹³

More recently, a previous Chief of Air Force, Air Marshal Leo Davies, stated that the RAAF will 'promote a commitment to "jointness" in Air Force culture such that Air Force members recognise their own capabilities as operating primarily on behalf of the whole ADF.'¹⁴ While many might dismiss these statements as politically correct Service propaganda, they could actually reflect an organisational desire to be joint, and indicate that the RAAF's inability to choose jointness may be a symptom of a more complex relationship. It is possible that the RAAF may truly want to be joint, but organisational barriers may limit its ability to correctly choose the appropriate priority for joint activities.

It is also unsophisticated to suggest that simply because the RAAF has chosen not to prioritise certain joint activities in the past, this historical tendency equates to a systemic failure to support most joint concepts and activities. Chapter 3 will demonstrate that on most occasions the RAAF's lack of joint priority can be found in the capabilities whose responsibilities and ownership fall between the cracks of at least two of the Services. This may suggest that these capabilities are not necessarily important and that perhaps the RAAF's lack of priority was justified. That might prove to be correct, but for the purpose of this book it is irrelevant. The intention is not to pass judgement on decisions made in the past, but to identify an organisational tendency that needs to be better understood if the evolving nature of joint is going to demand a greater level of priority.

There is another aspect of the RAAF's relationship with joint that makes it vital to understand why it may, on occasion, incorrectly prioritise jointness. The RAAF is in the unique position of having to provide air power to the other two Services to enable their core combat functions. While historically the RAAF's support of Army and Navy may have simply enhanced their combat effectiveness, current technology, war-fighting concepts and the lethality of airborne munitions make RAAF's support to the other two Services essential. For this reason, the RAAF's transgressions away from joint are more visible and tend to carry greater consequence than similar transgressions by the other Services. While it may not always seem fair, the RAAF's position as the air power provider for the ADF has made its relationship with joint essential and heavily scrutinised.

Ray Funnell, 'Air power strategy', in Desmond Ball (ed), *Air power: global developments and Australian perspectives*, Pergamon Press (Australia) Pty Ltd, Sydney, 1988, p. 94

¹⁴ Royal Australian Air Force, Air Force strategy 2017–2027, Canberra, ACT, 2017, p. 22

As the nature of joint moves towards the concept of mandatory mutual interdependence, each of the Services will be required to place greater priority on joint activities. While the RAAF may have the desire to embrace jointness, it has shown a historic trend towards incorrectly prioritising joint activities. If this lack of priority is not based on an absence of organisational desire, it is important to understand what the barriers to embracing jointness might be.

1.5 Can the RAAF prioritise jointness?

While the RAAF may display a strategic desire to be joint, the combined effects of organisational culture and behaviour make it unlikely that it will place the appropriate priority on every joint activity.

Internal to the RAAF, this propensity towards prioritising individual Service capabilities is created by the organisation's culture and a rewards system that teaches the individual that favouring the RAAF is more valued than supporting joint. External to the RAAF, but still intrinsically linked through Service culture, the main cause of this reduced emphasis on joint capabilities is a lack of strategic integration between the Services created by the politics of organisational behaviour.

While the RAAF may not consistently and consciously choose not to prioritise individual joint capabilities, the net effects of bureaucratic organisational behaviour and complex internal culture make it more likely that it will instinctively choose to prioritise its Service-related activities.

The question then becomes whether or not the RAAF is capable of removing the organisational barriers that have historically made it difficult to apply the appropriate level of priority to joint. Simply put: Can the Royal Australian Air Force properly prioritise jointness?

1.6 Coverage

Chapter 2 discusses two historical case studies to examine the RAAF's organisational tendency to incorrectly prioritise specific joint capabilities. The first case study focusses on the RAAF's provision of aviation support to Army. The second discusses the RAAF's ongoing commitment to several joint capabilities that fit under the umbrella of air—land integration. While the first case study is almost purely historical, the second case study is more contemporary. The need to show an ongoing organisational tendency is essential, otherwise the issues identified could be too easily dismissed as sins of the past and not maintain the necessary relevance to today's RAAF.

To repeat, it is not the intent of this book to pass judgement on historical priority decisions, but rather to look for historical behavioural tendencies. To cherry pick examples from the past that do not take into account what other competing priorities the RAAF had at the time would be methodologically unsound. Noting that there is always a competition for priority of funding, to reduce the potential for criticism, two case studies have been chosen that span extensive periods, and create a compelling picture of a Service that chose not to prioritise certain joint

capabilities. The most plausible explanation for this action is entrenched organisational behaviour and attitudes.

Chapter 3 reviews the concepts within organisation theory to build a theoretical framework through which the RAAF's organisational behaviour and culture can be better understood. A great deal of organisation theory has no direct application to Defence because it was designed specifically to identify opportunities for improvement of commercial efficiency. For this reason, the review focusses on the areas of bureaucratic organisational behaviour and internal organisational culture. This analysis is not designed to prove that organisation theory can be used to predict the actions of the RAAF, but to demonstrate that some of the behaviour it displays is in line with the expectations of behavioural theory. The purpose is to show that the RAAF's behaviour is not a series of random events but an expected response to changes in organisational circumstance. This understanding of the theoretical underpinnings of organisations will better explain RAAF's behaviour and facilitate the examination of potential solutions.

In Chapter 4, the attention turns to organisational culture. While the primary relevance of organisational cultural theory resides within corporate identities, this chapter discusses how the effects of culture within an armed service are compelling due to the strength of the factors that both create and sustain it. The internal culture of the RAAF is extremely complex, with a multitude of inter-connected factors that combine to create a tendency to focus on Service capabilities which, in turn, could manifest as cultural barriers to joint. The RAAF's culture has been created over a significant period and, perhaps unintentionally, certain aspects of its nature have instinctively drawn members of the RAAF away from prioritising joint. The chapter also examines whether this unconscious drift is due to organisational experiences which taught individual members that the RAAF places more value on generating RAAF capability rather than joint capability.

Chapter 5 examines whether the organisational behaviour within the strategic layer of Defence promotes a parochial focus on the independent capabilities of each of the Services. At the strategic level inter-service rivalry is consistently presented as proof that the Services stubbornly refuse to organisationally embrace jointness. Samuel Huntington suggests 'interservice competition became a ubiquitous, inherent, and permanent feature of the defence establishment.' Through the lens of organisational behavioural theory, and using several case studies, this book discusses the possible effects that intra-service rivalry has on Service cooperation and trust. The chapter also examines whether the political demands of the Defence acquisition process, combined with the ever-present concern over inter-service rivalry, creates the potential for a predilection towards individual Service capabilities, which, in turn, could permeate through each of the respective headquarters and create barriers to greater cooperation and integration at the strategic level of command.

¹⁵ Samuel P Huntington, 'Inter-service competition and the political roles of the armed services', American Political Science Review, vol. 55, March 1961, p. 43

Chapter 6 is a stepping-stone to finding potential solutions to address perceived issues with the RAAF's, and the other Services', organisational relationship with joint. While the ADF's organisational approach to applying jointness has, in the most part, mirrored those undertakings within the militaries of the United States and the United Kingdom, other countries have chosen not to adopt jointness in a similar manner. Using two international case studies, this chapter explores whether alternative methods in applying jointness alleviate some of the cultural and behavioural issues being experienced by the ADF. The chapter is designed to determine whether the ADF should consider an alternative approach to the application of jointness as a potential solution to the organisational shortfalls identified in the previous chapters.

Finally, the Conclusion draws on all the analysis contained within the previous chapters to answer the research question of whether it is possible for the RAAF to appropriately prioritise jointness. This chapter focusses on potential solutions that could enable the RAAF to remove those barriers that are currently impeding the organisation's strategic desire to be joint. Some of the proposed solutions, and in particular those relating to cultural issues, will be within the purview of the RAAF to address, but many of the resolutions will need a wider ADF commitment to address overall organisational issues that tend to exert an equal amount of influence on each of the Services' behaviour.

1.7 Limitations

There is potential during various parts of the research for direct comparisons to be drawn between the behaviour of the RAAF and that of the other Services within the ADF. As this work will not specifically answer the question of whether the Navy or Army could correctly prioritise jointness, this absence of comparison with the other Services could potentially lead to a criticism of a lack of balance within the research.

The reason for this omission is a related imbalance that exists between the RAAF's and the other Services' relationship with joint. The essentiality of the RAAF's relationship is not equally echoed within the other Services. As the primary provider of air power for the ADF, it is critical that the RAAF focuses on jointness because the other Services' combat functions cannot effectively operate in a conventional warfare scenario without it. While joint attitudes within the Navy and Army are also extremely important, the same level of criticality in the relationship does not exist. The RAAF could more than likely achieve most of its primary combat missions without direct Navy or Army support, and that may well be one of the factors that influences RAAF's current attitudes. That said, to reduce the concerns over imbalance, the book draws comparisons at the strategic level to provide enough of an insight to suggest that similar issues may also exist within the other Services.

Another limitation on the applicability of the research is the scarcity of material written by Australian authors that directly relates to the inter-service relationships at the strategic level and the organisational behaviour of the RAAF. There are numerous Australian historical authors that hint to the nature of the relationships and they have been used wherever possible, but in general

Creating a potent joint force

they do not contain any depth of discussion on organisational behaviour. To provide an illustration of this issue, when a previous Chief of Air Staff, Air Marshal Funnell, wanted to make a similar point about the paucity of Australian literature on air force topics he had to resort to quoting an American, Robert Futrell, who stated that 'Air Force thinking about its fundamental ideas and beliefs has not been systematically recorded because air activities have most often attracted men of active rather than literary leanings.'¹⁶

For this reason a number of American and British writers have been used throughout the book to provide the necessary depth in secondary sources. Though this is less than ideal, the similarities in inter-service relationships within the United Kingdom and the United States, and the common heritage in both war-fighting concepts and joint evolution, will allow accurate parallels to be drawn between the three countries.

¹⁶ Ray Funnell, 'Air power strategy', in Desmond Ball (ed), *Air power: global developments and Australian perspectives*, p. 95

2

The relative priority of jointness

Within a modern military context, where the primacy of joint cannot be considered a contested concept, it is a serious accusation to suggest that a Service does not accept the relative priority of jointness. The RAAF has a long and proud history of effective combat operations within the joint environment, so any criticism of its attitude to jointness needs to be placed into an appropriate perspective to avoid an egregious generalisation. While the purpose of this chapter is to provide evidence that the RAAF has, at times, placed an inappropriate level of priority on the provision of particular joint capabilities, it is important to highlight that these omissions do not necessarily characterise the organisation's overall performance because many of the Air Force's primary roles are intrinsically joint.

Air Marshal Geoff Brown, a previous Chief of Air Force, said: 'I do not think there is anything inherently in Air Force culture that dislikes joint, a lot of our core roles are about being joint. I would argue probably more so than the other two Services, because, by our very nature, we are enabling capability for them.'¹⁷

Brown goes on to explain:

What is the core of what an Air Force does? It protects and owns the air domain so that everybody else's operation can go on, it moves cargo and people through the air domain and it provides an intelligence, surveillance and reconnaissance (ISR) role over land and sea. Airlift does not move much for Air Force other than when the squadrons are going somewhere. Most of the airlift role is purely in support of the other Services, mainly Army. ISR and maritime aircraft predominantly provide services for whole of government or the Navy. The air combat domain tends to be seen as an Air Force only role, things such as strike and air defence, but historically you would have to argue if an Air Force does not do that, the Navy does not sail and the Army does not do anything on the ground, other than at great risk. So, I would make an argument that when people look at those single service roles, they are fundamentally joint anyway. I don't think people credit that when they look at Air Force, because what they tend to see are the 'seams' that exist between the Services.

This context is important because it provides some perspective on the scale of the issues being considered. The vast majority of Air Force roles are, by their very nature, joint. The RAAF completes these joint roles on a daily basis with no apparent issues on the priority placed on these tasks. If taken in isolation, the RAAF's performance in these core Air Force roles would suggest that it is capable of prioritising jointness correctly. The majority of criticisms do not stem from the RAAF's

¹⁷ Air Marshal Geoff Brown AO (Retd), Interview, 16 May 2017

implementation of these core roles, instead they originate from the organisation's performance in the *seams* between the Services. As the term suggests, these are the joint capabilities that exist in the overlapping space between the Services, where responsibilities are either shared or not clearly defined.

Acknowledging that the RAAF successfully completes its inherently core joint roles and that most of the concerns raised seem to exist within the *seams* between the Services might suggest that the context of this book relates only to relatively unimportant joint capabilities. This might create the unfortunate impression that the subject being discussed is much ado about nothing. This chapter refutes that by demonstrating that the RAAF has, on occasion, failed to deliver the required level of priority to joint capability, even though there was a reasonable expectation or operational requirement for it to be provided.

Any discussion on the appropriateness of the priority afforded to a joint role will naturally lead to a question on how the importance of that capability was determined. For this book to suggest that an inappropriate priority was placed on a joint role it must make a value judgement on the importance of the capability being discussed. Concern over determining the level of importance will be addressed within this chapter by ensuring that each example had a clearly identified operational need that should have been anticipated by the RAAF.

The evidence presented in the chapter is in the form of two case studies. The first concentrates on the RAAF's provision of air support to Army in the two decades prior to the Vietnam War. The second takes place from the 1990s to today, and discusses three joint capabilities that the RAAF uses to integrate with and support the land forces of the Australian Army; namely, forward air control, airdrop and air liaison. Comparison within, and then between, the case studies is an essential part of this chapter, as it will highlight patterns in the RAAF's behaviour and its attitude towards the creation of joint capability.

2.1 Case study 1: Air Force support to Army

The requirement for the RAAF to provide air support to the Australian Army has existed since the Air Force's inauguration in 1921. In fact, the committee that made the decision to create an independent air force clearly stated that 'any air force would exist solely to support sea and land forces.' The decision to create the RAAF made the organisation the sole provider of military air power within Australia, and temporarily removed Army's ability to create an aviation capability of its own. The RAAF's position as sole provider of military air power changed immediately following World War II, when the Royal Australian Navy (RAN) was authorised to stand up a fleet air arm to support operations from their newly acquired aircraft carriers. While the RAAF was no longer the sole provider of air power, it did remain the primary provider, and its responsibilities

Alan Stephens, *The Australian centenary history of Defence, volume 2, The Royal Australian Air Force,* Oxford University Press, South Melbourne, Vic, 2001, p. 27

for supporting the Army remained unchanged. Though the RAAF's responsibilities were clearly articulated, the nature and quantity of that air support has been a historic point for friction between the two Services.

The complexity in determining what air support Army receives from the RAAF is illustrated in the following extract from a 1966 agreement between the Chief of General Staff and the Chief of Air Staff:

Both Army and RAAF recognise the RAAF's responsibility to provide air support for the Army in a manner mutually agreed by, and satisfactory to both Services, and recognise further that the scale and extent of such support will depend upon the resources allocated to the RAAF for that purpose; and that RAAF requirements will be taken into account in reaching the aforementioned mutual agreement.¹⁹

The Army does not necessarily get the type or quantity of air support it believes it requires; it gets the level of air support that the Services mutually agree should be provided. The RAAF gets to negotiate the type and quantity of air support it provides Army based on the resources allocated to the task and on a poorly defined term known as RAAF requirements. What this means is that the Air Force can negotiate a reduction in the air support provided if service factors, such as the anticipated level of operational tasking or aircrew availability, impede its ability to provide that support. As is the case with most negotiated positions between individual organisations, there is significant opportunity for the agreed position to be considered less than optimal by one or both.

Another major area of complexity is that the type of support Army requires does not remain static. The RAAF provides Army with several different types of air support including the aerial delivery of fire support, tactical airlift of personnel and cargo, forward air control and parachute airdrop. The types of air support expected by Army can vary due to changes in the characteristics of the war being fought, amendments to the organisational structure or doctrine of the Army and advances in technology. Changes in any of these factors could require the RAAF to acquire new aircraft, weapon systems or support technology.

As examples in this case study demonstrate, there are normally long lead times required to acquire aviation platforms and weapons systems. More time is then required to introduce a new capability into service because procedures need to be developed and aircrew then need to be trained accordingly. In cases where acquisition is required, these processes inevitably result in a significant amount of time passing between the need for a change in air support being identified and those required changes being delivered.

The unsatisfactory nature of a negotiated agreement on the type and quantity of air support provided, combined with the long lead-times associated with any change to aviation systems, leads to disagreement between the Army and the RAAF over the quality of air support being

¹⁹ AWM 121, Folio 68, Agreement by the Chief of General Staff and the Chief of Air Staff on implementation of the decisions by the Minister for Defence relating to Air Support for the Army, 29 September 1966

provided. While some of that unhappiness was created by bureaucratic process, there was potential for the RAAF to lessen the adversarial nature of the relationship by demonstrating a commitment to provide Army with the best air support possible. Unfortunately, as this case study establishes, in the 1950s and 1960s the RAAF did very little to convince Army that they had any true commitment towards the joint air support being provided.

2.2 Two decades of disinterest

In March 1951, the RAAF's responsibility to provide air support was confirmed during a meeting of the Land/Air Warfare Committee where it was agreed that the Air Force would continue to provide all aspects of air services to Army. It did not take long for the RAAF to begin to walk away from this commitment. In April 1951, the RAAF published a document titled Policy Statement No. 7: 'The organisation of light aircraft support to Army' that reduced the agreed level of support. While Air Force would continue to provide light aircraft and their associated maintenance services, they would no longer provide the pilots to operate the aircraft. The reasons for this decision were that:

RAAF pilots were specialists trained to fly heavy and high-performance aircraft. Their skills would be 'wasted' on 'light' aircraft. Additionally, there was little incentive for 'specialist' Air Force pilots to acquire the knowledge of land operations necessary for army aviation.²¹

As a result of this decision Army pilots began operating as part of No. 16 Air Operations Flight, under an RAAF command and maintenance structure.²²

Alan Stephens identifies this decision as the moment that the RAAF opened the door for the creation of Australia's third air force. By providing their own pilots, Army was able to create a core of aviation specialists within the Service, which could then potentially become the nucleus of an Army air support capability. The RAAF failed to demonstrate the commitment necessary to remain the sole provider of air power to Army, and through their actions encouraged senior Army officers to look for more reliable alternatives. Stephens states:

Army had no intention of competing with the other services in providing air power for the defence of Australia. The overriding issues were the Army's increasing requirement

²⁰ Air Power Development Centre, RAAF Historical Section, Air Board Agenda 12567, 31 January 1956

²¹ Alan Stephens, *Power plus attitude: ideas, strategy and doctrine in the Royal Australian Air Force* 1921–1991, Australian Government Printing Service, Canberra, ACT, 1992, p. 128

²² Jeffrey Grey, *The Australian centenary history of Defence, volume 1, The Australian Army*, Oxford University Press, South Melbourne, Vic, 2001, p. 216

for light aircraft, and the generals' reasonable ambition to control the means necessary for their force to carry out 'indispensable aspects' of a modern army in peace and war.²³

The RAAF no longer considered the provision of light aircraft support to Army as a core function for the Service because the aircraft were too low performance for real pilots, and it was considered unnecessary for Air Force officers to get a greater joint understanding of land operations.

The RAAF's attitude towards the provision of air support for Army did not improve. Jeffrey Grey indicates that the 'RAAF showed little interest in assisting the army in this area,' and that dissatisfaction with the organisation's outlook 'led the army to acquire its own light aviation capabilities in the late 1950s.'²⁴ Chief of General Staff, Lieutenant General Sir Henry Wells, suggested that land force training was being negatively impacted by the obsolete nature of the air observation aircraft being provided by Air Force, and that there was 'no evidence that the RAAF was trying to replace the [early 1940s era] Austers [Mk 3] with modern aircraft.'²⁵ Wells was also concerned with the quantity of support being provided and requested the RAAF to provide a training force of 22 aircraft and 3,315 flying hours annually. The RAAF, believing that it was doctrinally wrong to reduce higher priority Air Force commitments, replied it could only provide a force of 15 aircraft and 1,900 hours, a response that was unacceptable to Army.²⁶

It was inevitable that Army's increasing discontent would eventually result in them taking action to address their concerns over the availability and reliability of Air Force's joint support. On 30 July 1957, the Department of Army issued a paper titled 'Light Aircraft Support for the Army,' in which it 'presented a forceful case for the Army to assume full responsibility for tactical air support.' Army's justification for the proposal is perhaps best summarised in the following extract from a brief to the Minister for Defence:

It is recognised that each Service requires the support of the other two Services in varying degrees according to the type of the particular operation in which it is engaged. However, each Service also requires, integral to its organisation, those elements necessary for it to carry out its normal day to day tasks; this is particularly so in an operational situation. In such a manner it is able to function without having to rely on another service

²³ Alan Stephens, 'The odd couple: Army/Air Force relations', in Jeffrey Grey and Peter Dennis (eds), From past to future: the Australian experience of land/air operations – proceedings of the 1995 Australian Army History Conference, Australian Defence Force Academy, Canberra, ACT, 1995, p. 149

²⁴ Jeffrey Grey, The Australian centenary history of Defence, volume 1, The Australian Army, p. 216

²⁵ Alan Stephens, Power plus attitude: ideas, strategy and doctrine in the Royal Australian Air Force 1921–1991, p. 129

²⁶ Air Power Development Centre, RAAF Historical Section, Air Board Agenda 12567, 31 January 1956, in Alan Stephens, Power plus attitude: ideas, strategy and doctrine in the Royal Australian Air Force 1921–1991, p. 129

²⁷ Alan Stephens, Going solo: the Royal Australian Air Force, 1946–1971, p. 314

(which is designed to operate mainly in another environment) for the provision of an essential capability. 28

Army's argument, Stephens wrote:

rested on the notion that some air power roles had become so important to land operations that the units which provided those services had to be considered integral to armies. Implicit in that judgement was the belief that air forces (or at least the RAAF) could not always be relied upon to provide the necessary support when, where, and in the quantities required.²⁹

A Department of Army paper argued that the RAAF's focus on acquiring, operating and maintaining high performance aircraft made it inevitable that 'low-performance light aircraft inevitably would receive a low priority.'³⁰

The RAAF's unwillingness to provide quality joint support to Army eventually resulted in it losing responsibility for the light aircraft capability. In 1960 the Defence Committee authorised Army to own and operate light aircraft, which subsequently resulted in the transfer of No. 16 Army Light Aircraft Squadron from the RAAF to Army in 1964, the formation of the 1st Aviation Regiment in April 1966, and the establishment of the Australian Army Aviation Corps in July 1968.³¹ But if Army believed that having the light aircraft capability transferred to them would be a panacea for the support issues they suffered with Air Force, they unfortunately were about to find out that they were still heavily reliant on the priority decisions being made by the RAAF.

In fairness to the RAAF, it is important to point out that in the late 1950s Australia's strategic situation changed dramatically. Increasing concern over the rise of communism in Southeast Asia, and the increasing power of China and a more localised threat from Indonesia, saw the Cabinet authorise Defence acquisitions that would 'set in train the greatest rearmament program in the Air Force's peacetime history.'³² With an increasing strategic priority on the provision of air defence and battlefield mobility, the Australian Government authorised the purchase of five upgraded or new capabilities.

In the air defence realm, 100 French Dassault Mirage fighters were ordered to replace the ageing Sabre fleet. For the first time the RAAF would have a surface-to-air missile capability, through the purchase of the Bristol Bloodhound Mk I. For battlefield mobility, the Cabinet authorised the purchase of 18 Caribou short take-off and landing fixed-wing transports and a total of 24 Iroquois light utility helicopters. The final capability authorised during this period was 12 Lockheed Neptune maritime patrol aircraft.

²⁸ AWM 121, Folio 28, Brief for the Minister for Defence, Maintenance of Army Aircraft, July 1966

²⁹ Alan Stephens, Going solo: the Royal Australian Air Force, 1946-1971, p. 314

³⁰ Ibid.

³¹ AWM 103, Folio 1, CGS Minute Military Board, 28 June 1968

³² Alan Stephens, Going solo: the Royal Australian Air Force, 1946–1971, p. 45

The Iroquois decision was the first time the RAAF needed to purchase a helicopter for Army support. The first order of eight Iroquois, which had a dual role of search and rescue and Army support, was placed in April 1961. Two further orders were placed in 1963 and 1964 with the primary mission of battlefield manoeuvrability for Army. Each of those orders was for eight aircraft, which bought the total to 24 helicopters.

In the 1960s, the RAAF had a tremendous organisational challenge to acquire the equipment and prepare the Service for both new and transitional capabilities. Most of the challenge would be finding the personnel resources necessary to undertake the acquisition processes and to be trained in the operation and maintenance of new platforms. It was within this resource-constrained environment that Air Force's organisational priorities became more apparent.

The first friction point between Air Force's priorities and the needs of Army support surfaced within the maintenance capability. The Army assumed operational control of Army Aviation, which included both fixed and light rotary-wing aircraft, on 8 September 1964.³³ As part of the transfer it was agreed that the aircraft would continue to be maintained to Air Force standards, and that the RAAF would continue to provide training to Army aircraft technicians.³⁴ It was also decided that there needed to be a period of transition where the RAAF would continue to provide front line technicians until January 1969.³⁵ In 1967 the need to support new capabilities and operations in Vietnam made technical services a critical issue for Air Force, and the Chief of Air Staff wanted the early release of RAAF technicians from within the Army air support capability.³⁶

This attempt was unsuccessful because Army were concerned any early release of RAAF technicians from aviation units 'would result in a serious curtailment of Army's flying effort'. In early 1968 Air Force tried again by suggesting that the original commitment pertained to training only, and that they no longer needed to provide frontline technicians. Army strongly disagreed with the RAAF's interpretation and insisted that on-the-job experience was a major reason for retaining RAAF members at all ranks within the aviation support units until late in the transition period. The RAAF's lack of technician support even forced Army to consider 'employing other government and civilian organisations to relieve the pressure on Army aviation flight workshops.'39

Technician availability was not the only aspect of personnel support to Army aviation that was being given a low priority by the RAAF. In the early 1960s, the strategic pressures that had

³³ AWM 121, Folio 30, Additional notes on Army Light Aircraft

³⁴ AWM 121, Folio 118, Decision by Minister for Defence on Organic Army Aviation

³⁵ AWM 121, Folio 47, Minute to DDMP(Air) from A/DEME – Manning of Army Aviation Workshops, 10 January 1968

³⁶ AWM 121, Folio 42, Minutes of a meeting of the Joint RAAF/Army Standing Committee, 9 November 1967

³⁷ Ibid.

³⁸ AWM 121, Folio 47, Minute to DDMP(Air) from A/DEME – Manning of Army Aviation Workshops, 10 January 1968

³⁹ AWM 121, Folio 27, Army Board Minutes

created a criticality within the technician workforce also affected the availability of pilots. There was an added issue for pilot availability because shortages were exacerbated by an increasing resignation rate created by a vigorous recruiting campaign by civilian airlines.⁴⁰ In response to this predicament, the RAAF rapidly increased the number of Air Force pilots being trained, but it also considered a solution that would increase Air Force pilot output by suspending all Army and Navy pilot training. It also considered the possibility of outsourcing Army's training to a civilian provider.⁴¹ While this solution was never implemented, the fact that the RAAF even considered it as a viable solution demonstrates the reduced priority they placed on the needs of Army aviation and their lack of commitment to be the joint provider of trained pilots.

A final example of the priority that the RAAF placed on the need to support Army aviation can be found within its commitment to support complex acquisitions. In 1962, the Cabinet approved the acquisition of eight medium lift helicopters as part of their focus on improving Army's battlefield mobility. At the time, this project was deferred because of a lack of suitable aircraft options. In 1965, the Chief of General Staff attempted to increase the priority being given to the acquisition but met a wall of indifference from the RAAF which did not agree to increase the priority. At the time Army made its request for increased priority, the RAAF was focused on bringing Mirage III fighters, F-111 bombers, C-130E transport aircraft and P-3 Orion maritime aircraft into service. The lack of priority being placed on Army's helicopter needs was most likely because 'the last thing Air Force leaders wanted was another new aircraft type, particularly one which would add nothing to the preferred air power roles of strike and control of the air.'43

At the start of the 1950s, the RAAF was the sole provider of air power for the Australian Army. During the subsequent decade it lost that position because it chose to place no priority on its joint responsibility to provide light aircraft in the joint air support role. In the 1960s, there was a distinct trend within the RAAF to place the needs of Army aviation at a lower priority than the requirements of Air Force capability. The RAAF was facing some significant strategic pressures during that decade, so many of those decisions were probably justifiable, but Air Force consistently placed its own capability requirements above its joint responsibilities. On some occasions these decisions had limited organisational impact on Army, but in the provision of joint helicopter support to Army operations in Vietnam, the RAAF's lack of priority had significant operational and reputational repercussions.

⁴⁰ Alan Stephens, Going solo: the Royal Australian Air Force, 1946–1971, p. 156

⁴¹ Air Power Development Centre, RAAF Historical Section, Air Board Agenda 13073, 27 September 1964

⁴² Alan Stephens, Going solo: the Royal Australian Air Force, 1946–1971, p. 317

⁴³ Ibid.

2.3 Lack of priority exposed in Vietnam

Australia's military commitment to the Vietnam War commenced in 1962 with the provision of 30 military advisers to the South Vietnamese Government. In the same year No. 9 Squadron re-formed to operate the newly acquired Iroquois helicopter. In April the previous year, Defence had ordered eight Iroquois for the dual roles of search and rescue and Army support. On reformation No. 9 Squadron was designated as a search and rescue unit, reflecting what Air Force believed was the unit's primary role. The apparent confusion over the squadron's roles should have been clarified in 1963 when an additional eight Iroquois were ordered specifically for Army support, a move that led to Army's presumption that No. 9 Squadron's main role was to support them.

The RAAF's participation in the Vietnam War commenced in August 1964 with the provision of six Caribou tactical transport aircraft as an integrated unit within the United States Air Force's Southeast Asia Air Lift System. In April and May of the same year, Wing Commander Ray Scott, Commanding Officer of No. 9 Squadron, made a visit to Vietnam to observe the tactics and procedures being used by US Army tactical transport units that also operated the Iroquois helicopter. Scott's formal report from the visit made a vital observation that flak jackets and armour plating should be considered essential for helicopter operations in Vietnam. This meant that the RAAF was aware of the helicopter tactics being used in Vietnam, and the equipment requirements for those operations, almost two years prior to Prime Minister Harold Holt announcing the deployment of a helicopter squadron into combat operations.

By 1965, with South Vietnam on the verge of collapse, the Australian Government decided to deploy the First Battalion, Royal Australia Regiment (1RAR), plus artillery, mortars, engineers and logistic units suitable to support the battalion.⁴⁹ Prior to the deployment, the Chief of General Staff, Lieutenant General John Wilton, wrote to the Chief of Air Staff and suggested that 'it might prove an ideal opportunity for the RAAF to gain experience in trialling tactical techniques and cooperation through sending two helicopters to operate with an American flight'.⁵⁰ Wilton

⁴⁴ Royal Australian Air Force, RAAF Historical Section, *Units of the Royal Australian Air Force: a concise history – volume 4 – maritime and transport units*, Australian Government Publishing Service, Canberra, ACT, 1995, p. 3

⁴⁵ Chris Coulthard-Clark, *The RAAF in Vietnam: Australian air involvement in the Vietnam War* 1962–1975, Allen & Unwin Australia Pty Ltd, North Sydney, NSW, 1995, p. 43

⁴⁶ Ibid., p. 130

⁴⁷ Australian Force Contribution to Vietnam, 1964, CRS A7941/2, V16, National Archives of Australia, in Alan Stephens, *The Australian centenary history of Defence, volume 2, The Royal Australian Air Force*, p. 27

⁴⁸ Prime Minister Harold Holt announced the deployment of RAAF helicopters to Vietnam on 8 March 1966.

⁴⁹ Lex McAulay, The Battle of Long Tan, Century Hutchinson Australia Pty Ltd, Hawthorn, Vic, 1986, p. 7

⁵⁰ Chris Coulthard-Clark, *The RAAF in Vietnam: Australian air involvement in the Vietnam War* 1962–1975, p. 141

even offered to accept a reduced level of air support in Australia to enable this joint operational experience to occur.⁵¹ The Chief of Air Staff, Air Marshal Alister Murdoch, did not support the joint deployment because he believed that Air Force's deployments to Malaysia had already provided the necessary experience in jungle helicopter operations and he had concerns over the tactics being used by the Americans.⁵² Wilton, unhappy with Air Force's rejection, made the point that 'because the Iroquois had been purchased primarily to support the Army, the sooner that happened in an operational situation the better.'⁵³

Despite the insistence that it did not require additional joint experience, when the RAAF arrived in Vietnam in June 1966 it was not adequately prepared to undertake its joint role. Despite Scott identifying the equipment requirements for operations in Vietnam two years earlier, the helicopter force arrived with only two of the nine Iroquois fitted with armoured seats, none of the aircraft were fitted with door gun mounts and the aircraw did not have flak jackets designed for upper-body protection.⁵⁴ This lack of appropriate equipment meant that the RAAF's Iroquois were particularly vulnerable to enemy ground fire. This vulnerability, combined with a paucity of replacement airframes and aircraws, meant that the RAAF considered it essential to husband its rotary-wing resources by placing strict operational limitations on their use.⁵⁵ Those operational limitations reduced the RAAF's ability to provide the required joint effect with Army.

The Department of Air's Organisation Directive 8/66 placed operational limitations on No. 9 Squadron by restricting their ability to operate into insecure landing sites. The restrictions were considered necessary to reduce the risk of inadequately armoured helicopters receiving enemy ground fire. The following extract details those limitations:

The function of No. 9 Squadron is to provide short-range transport in the following roles:—

- (a) the lift of troops from a secure staging area to a landing zone that is relatively secure and when enemy resistance is not expected; i.e., troop positioning;
- (b) the lift of troops from an operation area to a secure staging area when enemy resistance is anticipated on the last lift from the landing zone; i.e., troop extraction.⁵⁶

For Army, helicopter support was about saving soldiers' lives on the ground, and they needed this support to be able to operate into relatively insecure environments so that the helicopters

⁵¹ Alan Stephens, *The Australian centenary history of Defence, volume 2, The Royal Australian Air Force*, p. 264

⁵² Chris Coulthard-Clark, *The RAAF in Vietnam: Australian air involvement in the Vietnam War* 1962–1975, p. 141

⁵³ Deployment of Helicopters to Vietnam, 30 September 1965, CRS A7941/2, V16, National Archives of Australia, in Alan Stephens, *The Australian centenary history of Defence, volume 2, The Royal Australian Air Force*, p. 264

⁵⁴ Ibid., p. 265

⁵⁵ Nick LeRay-Meyer, 'RAAF helicopter operations Vietnam 1966–1971 (#230)', *Pathfinder: Air Power Development Centre Bulletin*, vol. 7, October 2014

⁵⁶ Lex McAulay, The Battle of Long Tan, p. 18

could deliver reinforcements and extract outnumbered or wounded soldiers. Given these circumstances, it is not difficult to understand why Army believed that the RAAF had not taken its joint responsibilities seriously. Lex McAulay suggests that, in the early days of its helicopter deployment to Vietnam, the RAAF was held in contempt by the Army due to a perception that Air Force did not understand the combat role it was required to undertake, and that that lack of comprehension was clearly evident in the manner in which the Squadron was equipped for war.⁵⁷

The Army's opinion that the RAAF was unprepared to undertake its joint responsibilities in Vietnam was not helped by the Air Force's senior officer selections. The RAAF appointed Air Commodore Jack Dowling as the deputy commander of Australian Forces Vietnam. Dowling had almost no air—land warfare experience, having come from a predominately fighter and bomber background in World War II.⁵⁸ The Commander of Australian Forces Vietnam, Major General Kenneth Mackay, believed that Dowling was not an ideal selection because he 'knew little of airmobile operations, let alone land warfare'.⁵⁹ Group Captain Peter Raw, who was appointed as the Task Force Air Commander, also suffered from a lack of familiarity with land warfare, having come from a predominately bomber background. By selecting air combat pilots who had no practical experience in air—land operations as its most senior commanders, the RAAF merely confirmed Army's belief that they did not understand the demands of their joint role.⁶⁰

2.4 Reasons for the lack of preparation

There were a number of other significant issues that caused friction between the RAAF and Army at the beginning of No. 9 Squadron's deployment to Vietnam. Disagreements over command and control arrangements, and whether the Australian helicopters should adopt Americans concepts and procedures, created an unhealthy divide between the two Services. No doubt these issues are important, but they do not speak directly to the priority the RAAF placed on the preparation of the joint helicopter capability. The question that needs to be answered is whether No. 9 Squadron's inadequate preparation was due to Air Force choosing not to prioritise joint capability. Within the historical literature there are three main reasons identified as the potential sources for Air Force's lack of operational readiness.

⁵⁷ Lex McAulay, The Battle of Long Tan, p. 16

⁵⁸ Air Commodore Jack Dowling served with No. 458 Squadron, No. 12 Squadron and No. 3 Fighter Section Townsville. Australian War Memorial Collection Search Website, viewed June 2017, https://www.awm.gov.au/collection/P10681219?search

⁵⁹ Ian McNeill, *To Long Tan: the Australian Army and the Vietnam War 1950–1966*, Allen & Unwin, St Leonards, NSW, 1993, p. 236

⁶⁰ Alan Stephens, *The Australian centenary history of Defence, volume 2, The Royal Australian Air Force*, p. 266

The first potential explanation is provided by Coulthard-Clark who suggests that:

the RAAF considered that it had been effectively ambushed by the Army into sending No. 9 Squadron to accompany the task force in 1966, with the result that little planning had gone into such a contingency before the service found itself having to deal with it.'61

Coulthard-Clark continues this theme by suggesting that the RAAF was anxious to protect the helicopters because they had been 'dragooned' into deploying them. ⁶² Air Commodore Bruce Lane, who deployed to Vietnam as a flight lieutenant line-pilot with No. 9 Squadron, also suggests that the RAAF had little time to organise the deployment because the inclusion of the helicopters in the increased commitment was an Army initiative, whose timing had not been appropriately consulted with Air Force. ⁶³

This justification is hard to maintain considering all the lead indicators that the RAAF had on the likely deployment of helicopters to Vietnam, a point that Coulthard-Clark concedes by indicating that 'as early as 1965 the Army had signalled its thoughts on the desirability of helicopter support for 1RAR in Vietnam and received a cold rebuff from the RAAF.'⁶⁴ It also seems unlikely that the RAAF would have sent the commanding officer of No. 9 Squadron to Vietnam in 1964 unless they believed there was some potential for the capability to be deployed. It is therefore improbable that Air Force could not have anticipated the deployment of its helicopter force to Vietnam.

A more plausible reason for the lack of preparation could be related to how much the RAAF understood its combat role in Vietnam. In his article 'Employment of Australian helicopters in Vietnam: strategic failure, operational pragmatism, and tactical success', Lieutenant Colonel Chris Field suggests that a lack of strategic cooperation, created by the inter-service rivalry present at the time, led to a gulf in understanding between the RAAF and Army on how the helicopters would be employed. ⁶⁵ The RAAF had a limited understanding of the battlefield roles that Army expected it to undertake in Vietnam because ineffective strategic cooperation did not enable the creation of an agreed airmobile doctrine.

Chris Clark supports this position by noting that the RAAF 'never envisaged that the Iroquois would be used in a hot combat setting. It was an unarmoured utility lift vehicle, not really a

⁶¹ Chris Coulthard-Clark, 'The Australian experience of land/air operations: Vietnam', in Jeffrey Grey and Peter Dennis (eds), From past to future: the Australian experience of land/air operations – proceedings of the 1995 Australian Army History Conference, p. 135

⁶² Chris Coulthard-Clark, *The RAAF in Vietnam: Australian air involvement in the Vietnam War* 1962–1975, p. 142

⁶³ Bruce Lane, 'No. 9 Squadron operations', in John Mordike (ed), *The RAAF in the war in Vietnam:* proceedings of the 1998 RAAF History Conference, Air Power Studies Centre, Fairbairn, ACT, 1999 p. 34

⁶⁴ Chris Coulthard-Clark, *The RAAF in Vietnam: Australian air involvement in the Vietnam War* 1962–1975, p. 143

⁶⁵ Chris Field, 'Employment of Australian helicopters in Vietnam: strategic failure, operational pragmatism, and tactical success', *Australian Defence Force Journal*, no. 161, July/August 2003, pp. 33–43

battlefield aircraft.'⁶⁶ This resulted in a dilemma where 'the Army wanted to conduct airmobile operations with little experience and less available doctrine, but could not gain airmobile skills or write doctrine without the full support of a reticent RAAF who were focused on limited roles for the helicopters.'⁶⁷

Perhaps the most plausible reason why the RAAF was unprepared relates to Air Force's reluctance to focus on helicopter support. Coulthard-Clark identifies that:

Army may have been justified in showing impatience with the RAAF's perceived slowness to appreciate the changing nature of helicopter operations in a combat theatre, and its apparent unwillingness to spare attention and resources for upgrading its capabilities in this area (particularly when compared to its fighters and bombers).⁶⁸

This inability to identify the changing nature of helicopter operations was because the value of the helicopter was 'not immediately apparent in a Service dominated by the view that it was bombers and above all fighters which made an air force.' Stephens put a stronger case forward when he wrote:

over the years some RAAF leaders had routinely treated Army's needs with arrogance, while almost invariably helicopter operations were regarded as an after-thought to the 'real' air force tasks of air superiority and bombardment.⁷⁰

Air Marshal David Evans, a previous Chief of Air Staff, indicated that during the 1960s and 1970s he was constantly annoyed by his superiors' attitude towards Army support. They often expressed an opinion that the RAAF's purpose was 'not about fighting a land war, air power is for fighting the enemy's air, and going to their air bases and knocking their aircraft out, not running around in fields'⁷¹

The low organisational value the RAAF placed on helicopters, and their joint role, was confirmed in 1969 when the Chief of Air Staff, Air Marshal Alister Murdoch, refused a request by the Chief of General staff to support the acquisition of helicopter gunships because 'such aircraft had the

⁶⁶ Chris Clark, 'The RAAF at Long Tan', presented at a seminar on behalf of the Air Power Development Centre on 20 July 2010. Chris Clark and Chris Coulthard-Clark are the same author using different variations of his name. The name used in the book matches the author's preference for that particular publication or presentation.

⁶⁷ Chris Field, 'Employment of Australian helicopters in Vietnam: strategic failure, operational pragmatism, and tactical success', p. 35

⁶⁸ Chris Coulthard-Clark, *The RAAF in Vietnam: Australian air involvement in the Vietnam War* 1962–1975, p. 142

⁶⁹ Chris Coulthard-Clark, 'The Australian experience of land/air operations: Vietnam', in Jeffrey Grey and Peter Dennis (eds), From past to future: the Australian experience of land/air operations – proceedings of the 1995 Australian Army History Conference, p. 136

⁷⁰ Alan Stephens, *Power plus attitude: ideas, strategy and doctrine in the Royal Australian Air Force* 1921–1991, p. 134

⁷¹ Air Marshal David Evans AC DSO AFC (Retd), Interview, 1 May 2017

lowest priority." Air Commodores Ray Scott and Bruce Lane, Air Force's most senior helicopter pilots who deployed to Vietnam, both believe that helicopter squadrons were consistently given lower priority than strike squadrons. Lane felt that for many years the RAAF's higher echelons 'looked down' on helicopters." Air Chief Marshal Sir Angus Houston, a previous Chief of Defence Force and the last Commanding Officer of No. 9 Squadron, believes this lack of priority was most likely due to the background of the Air Force leaders, stating that 'if you asked the Air Marshals at the time what was the most important capability in air force, it would have been fighters and bombers, because that's where they all came from."

2.5 Case study summary

Since inauguration, Air Force's joint responsibility has been to provide Army with its air support requirements. It would be difficult to dispute that during the 1950s and 1960s the RAAF did not always undertake this joint role willingly or place an appropriate amount of priority on capability development. While much of Army's dissatisfaction with the provision of light aircraft and helicopter support could be blamed on cultural differences or organisational manoeuvring, these excuses ignore the RAAF's pattern of demonstrated organisational indifference, a pattern that started with an unwillingness to undertake light aircraft support in 1951, and that reached its crescendo with the Air Force's failure to correctly prepare the Iroquois helicopters for combat operations in Vietnam in 1966.

The incorrect priority placed on the preparation of the helicopter force cannot easily be dismissed by claims of competing organisational priorities. While Air Force had significant resource issues in the 1960s, the acquisition of a multitude of new air power related capabilities should not have been considered a higher priority than providing a clear operational requirement. The Vietnam War was one of the Australian Government's highest military priorities and the RAAF should have placed a commensurate level of priority on its joint responsibilities in support of that conflict.⁷⁵ When it comes to explaining why the RAAF made that choice, there appear to be two probable causes.

The first cause relates to the ability of the Services to communicate effectively at the strategic level. Army may have understood that it was doctrinally moving towards a heavy reliance on airmobile operations, but there is some doubt whether that doctrinal shift was communicated effectively to Air Force. While the tactical level – taking the experience of the commanding officer

⁷² Chris Field, 'Employment of Australian helicopters in Vietnam: strategic failure, operational pragmatism, and tactical success', p. 39

⁷³ Alan Stephens, Power plus attitude: ideas, strategy and doctrine in the Royal Australian Air Force 1921–1991, p. 130

⁷⁴ Air Chief Marshal Sir Angus Houston AK AFC (Retd), Interview, 20 June 2017

⁷⁵ Stephan Fruhling (ed), *A history of Australian strategic policy since 1945*, Australian Department of Defence, Defence Publishing Service, Canberra ACT, p. 329

of No. 9 Squadron as an example – may have been aware of the change in emphasis, the fractious relationship between the Services may have meant that the strategic level of Air Force was less aware of the change.

The second cause was the lack of organisational value placed on Army support helicopter operations. Within the historical accounts of RAAF's provision of air support, there is an almost uniform belief that it failed to prioritise support to Army because it had a strong preference to place a higher organisational value on the air combat capabilities (fighters and bombers). With the RAAF placing a greater value on air combat, when resources became stretched in the 1960s the helicopter capability failed to receive the required level of prioritisation for funding and personnel allocation. Without the required level of strategic support within Air Force, no amount of skill or flexibility at the tactical level could make up for the lack of organisational investment in the joint helicopter capability.

The helicopter capability prior to Vietnam is an excellent example of a joint capability that was incorrectly prioritised because the RAAF believed it was either inconsequential or because it fell outside of the air power roles it considers its core responsibility. That said, some may consider it is unfair to judge the RAAF too harshly on its joint credentials during this period because the joint warfare concept was still in its infancy. While the Services would have known they had certain joint responsibilities towards each other, it was not until after Vietnam that jointness really became a stated policy of the ADF. While this nuance cannot really be used to excuse the RAAF's attitude to Army support during this period, it will be important to understand whether similar issues are still being experienced in an environment where joint is an accepted organisational concept. With this in mind, the second case study is set in a more contemporary time period, where the RAAF might be expected to fully understand the essential nature of its joint support responsibilities.

2.6 Case study 2: air—land integration

The importance of synchronising and integrating air support with the land force's scheme of manoeuvre has been recognised since the earliest appearance of aircraft on the battlefield. In *Military innovation in the interwar period*, Richard Muller describes how the RAF in World War I identified that attacks on German troops 'should not be left to the discretion of the individual pilots, but must be properly organised in coordination with ground operations'. This lesson and the importance of close air support was ignored in Australia post-war because a lack of resources in the interwar period meant that the 'application of tactical air power and its support of land battles' was mostly overlooked by the RAAF.

Richard R Muller, 'Close air support: the German, British and American experiences, 1918–1941,' in Williamson Murray and Allan R Millett (eds), *Military innovation in the interwar period*, Cambridge University Press, New York, NY, 1996, p. 150

⁷⁷ Jeffrey Grey, The Australian centenary history of Defence, volume 1, The Australian Army, p. 93

Despite the lack of focus in the interwar years, the importance of close integration and cooperation between air and land forces was again confirmed in World War II. Australian forces had first-hand experience of its importance during battles in the southwest Pacific where 'Australian soldiers received blue ribbon service from their nation's air arm.'⁷⁸ After World War II the importance of cooperation between the Services was recognised with the creation of the Joint Air/Land Warfare Committee and the School of Land/Air Warfare in 1947. Operations in Vietnam once again confirmed the essentiality of close cooperation and integration, with an emphasis placed on the need to regularly review and update close aerial support systems to ensure they remained fit for purpose.⁷⁹

Current RAAF air power doctrine states that offensive air support to Army requires a 'high degree of coordination with friendly forces' and 'elements of embedded air command and control.'80 With such a strong historical background, and an almost undisputed doctrinal agreement on the necessity of close integration between air and land forces, it could be assumed that the provision of an integrated air support network would be a priority for the RAAF. Unfortunately, that assumption has not always been correct.

There are two main types of capability that create the capacity for Air Force to provide integrated air support to Army. The first, and most obvious, is the air platform, which could be an air combat aircraft providing the delivery of offensive munitions, or an air transport or ISR platform providing direct support to Army. The second is the Theatre Air Control System (TACS), which is a series of smaller, normally personnel based, capabilities that enable the integration of the air platforms, or more correctly the joint effects these platforms create, with the land force's scheme of manoeuvre. The TACS includes capabilities such as Forward Air Control (FAC), Joint Terminal Attack Control (JTAC) and Air Liaison Officers (ALOs). It is within the TACS capability that the RAAF has demonstrated a tendency not to prioritise the creation and maintenance of joint capabilities.

To establish a distinctive pattern of neglect within several of the RAAF's enabling joint capabilities, this case study provides three examples. The first two capabilities, FAC and ALO, exist within the TACS and are essential to the successful integration and synchronisation of air and land effects. The third capability, which has been purposely selected to highlight that issue, occurs outside of the TACS, and is the provision of the ADF's airdrop capability. Airdrop is a role that allows the RAAF to air deliver personnel and logistics by parachute to deployed ground units.

⁷⁸ Alan Stephens, 'The odd couple: Army/Air Force relations', in Jeffrey Grey and Peter Dennis (eds), From past to future: the Australian experience of land/air operations – proceedings of the 1995 Australian Army History Conference, p. 144

⁷⁹ AWM 121, Folio 16, Report No. 25/66 'Joint Service implications of the expansion of organic Army Aviation within the Australian Army,' 1966

⁸⁰ Royal Australian Air Force, *The air power manual*, Seventh Edition, Air and Space Power Centre, Fairbairn, ACT, 2022, pp. 4-18

2.7 Forward air control

One of the most important joint roles that the RAAF undertakes for the Army is the provision of close air support (CAS). In simple terms, CAS is the airborne delivery of munitions (bombs, missiles, etc) in close proximity to friendly land forces, and is designed to assist those forces by destroying or disrupting the enemy they are engaged with. One of the most dangerous aspects of CAS is that the weapons are delivered in close proximity to friendly forces, which means if they are delivered incorrectly, there is an increased likelihood of fratricide. To mitigate that risk most modern air forces employ a forward air controller (FAC)⁸¹, whose primary responsibility is to prevent *blue on blue* engagements by providing extremely accurate targeting information to CAS aircraft. To be able to successfully undertake this task the FAC needs to be closely integrated with the land forces, so that they understand their battlefield objectives and planned manoeuvre.

The RAAF has been providing some form of FAC capability since World War II. In January 1943, during operations in Papua New Guinea, Wirraways from No. 4 Squadron performed the role of airborne FAC by using their slow speed and good manoeuvrability to designate enemy positions for the faster and more heavily armed Beaufighters from No. 30 Squadron. The FAC capability was used again in both the Korean and Vietnam Wars, with RAAF pilots being employed in the latter between 1966 and 1971 while on attachment with the United States Air Force. The RAAF pilots being employed in the latter between 1966 and 1971 while on attachment with the United States Air Force.

During the Vietnam conflict the Chiefs of Services Committee assigned the responsibility for the provision of trained FACs to the RAAF. Air Force was insistent that they provide the capability and refused to allow Army members to be trained as FACs. The RAAF also stipulated that 'CAS aircraft would not be made available unless a qualified FAC was in position to control the strike.' This decision immediately placed a joint responsibility on the Air Force to create and sustain a robust FAC capability.

Air Commodore Stuart Bellingham has been one of the RAAF's most senior FACs. He was intimately involved with the capability for the majority of his career, and had multiple operational deployments associated with the provision of FAC services in a combat environment. Bellingham is considered one the ADF's primary experts on FAC capability and is seen as the driving force

Forward air controller (FAC) is a generic term used to describe a member of the military who is qualified to control and target close air support. There are several different names for FACs within the ADF depending on their area of specialisation within the capability. A FAC (A) can provide FAC from an airborne platform. A ground based FAC, who could be from any Service, is now more commonly referred to as a Joint Terminal Attack Controller (JTAC). For the purpose of this book the generic term of FAC will be used to describe the overall capability.

⁸² Carl Post, 'The birth of forward air control: a Royal Australian Air Force innovation', *Australian Defence Force Journal*, no. 172, 2007, p. 106

⁸³ Air Vice-Marshal GW Neil (Retd), 'Forward air control operations in South Vietnam', in John Mordike (ed), *The RAAF in the war in Vietnam: proceedings of the 1998 RAAF History Conference*, p. 63

⁸⁴ AWM 121, Folio 192, Department of the Air Minute – Provision of Forward Air Controllers, 30 Sept 1969

behind its improvement within the organisation. What follows is from his personal account of the history of the FAC capability within the RAAF since 1999.⁸⁵

While FAC had been identified as a priority in Vietnam, the capability had subsequently been allowed to wither within the RAAF. In 1989, FAC was managed out of C Flight No. 76 (Aermacchi) Squadron using the Commonwealth Air Cooperation's CA-25 Winjeel, an aircraft that was clearly obsolete, having first entered service with the RAAF in 1955 as a training aircraft, and whose capabilities were far below that of the North American Rockwell OV-10 Bronco that was flown by Australian FACs in Vietnam.⁸⁶ In 1994 another RAAF training aircraft, the Pilatus PC-9/A, finally replaced the Winjeel. The PC-9/A, which was modified to carry smoke grenade dispensers for FAC training, could not be considered as a viable operational FAC platform because of genuine concerns over its survivability and lack of armament.

In 1997, the FAC capability was transferred to No. 77 (Hornet) Squadron in an attempt to make it more operationally focused. In 1999, Bellingham arrived at C flight No. 77 Squadron as the qualified flying instructor (QFI). On arrival, it became obvious that the marginal suitability of the PC-9/A as a FAC platform was only one of a myriad of operational issues facing the capability. Unfortunately, FAC within the RAAF had become an ad hoc capability, with almost a flying club atmosphere within the unit, with very little top-down direction or supervision. In Bellingham's opinion, the capability was only able to survive because of the presence of a single reserve member who maintained a level of corporate knowledge within the unit. At this stage, it was obvious that FAC had not been a priority for the RAAF and only minimal resources were being provided to maintain a training capability. Chief of Air Force, Air Marshal Mel Hupfeld, supports Bellingham's view, suggesting that FAC during this period was considered an Air Force capability that was only applied occasionally within the joint context. This resulted in the capability being raised, trained and sustained with a very Air Force-centric view, and cooperation with the Army could only be described as tenuous.⁸⁷

One of the biggest issues facing the capability was a lack of personnel with recognised FAC qualifications. By this stage, the RAAF had been training Army personnel as air contact officers, which was considered a basic FAC qualification. Unfortunately, neither the RAAF nor the Army had been adequately managing the individuals being trained, so most of the FAC qualifications in both organisations had lapsed due to a lack of currency. FAC qualifications, much like other aviation qualifications, require periodic renewal to ensure that the trained individual maintains a suitable level of competence. It is not surprising that the Army had not managed its currency requirements, because currency is not an overly familiar concept within Army, who tend to consider training as a 'one off' activity.⁸⁸ The vast majority of Army's training is not aviation related,

⁸⁵ Air Commodore Stuart Bellingham DSC AM CSC (Retd), Interview, 18 May 2017

Air Vice-Marshal GW Neil (Retd), 'Forward air control operations in South Vietnam', in John Mordike (ed), *The RAAF in the war in Vietnam: proceedings of the 1998 RAAF History Conference*, p. 63

⁸⁷ Air Marshal Mel Hupfeld AO DSC (Retd), Interview, 6 July 2017

⁸⁸ Air Marshal Geoff Brown AO (Retd), Interview, 16 May 2017

so it is unsurprising that many land-based organisations would be unfamiliar with strict currency requirements. The same excuse could not be made for Air Force, who were entirely familiar with managing aircrew currency requirements. A lack of robustness within the FAC capability, caused by a distinct lack of organisational focus on its requirements, was clearly evident in the lead up to the ADF's major peace-keeping intervention in East Timor (now Timor-Leste).

In September 1999, as part of the ADF's commitment to Operation WARDEN in Timor-Leste, No. 82 Wing had two squadrons of F-111Cs on high-readiness standby at RAAF Base Tindal in the Northern Territory. These aircraft were placed on standby in case the operational situation in Timor-Leste deteriorated to the point where either strike or CAS against Indonesian forces would be required. Finally accordance with agreed doctrine, the provision of CAS by the F-111Cs meant that a FAC capability would also need to be placed on standby. Unfortunately, when the requirement was identified there were only four qualified and current FACs within the entire ADF, one Army and three Air Force members. This abysmal situation occurred despite the fact that C flight had been training 12 FACs per year. These excessively low numbers of available FACs demonstrate that neither the RAAF nor Army had prioritised maintenance of the capability.

To be fair, neither Air Force nor Army had been clearly directed to maintain the capability. Within the ADF the necessity for Services to have certain capabilities available for operations is promulgated within a classified document called the Chief of Defence Force Preparedness Directive (CPD). The CPD details the size of the commitment required and the timeframe within which it has to be available for deployment. At the commencement of Operation WARDEN neither the RAAF nor Army had a CPD requirement to maintain FACs, a situation that is difficult to understand when the provision of CAS is such an integral part of joint operations. Neither the RAAF, who understood they had a requirement to provide CAS, nor Army, who would have an expectation of CAS being delivered, placed any priority on ensuring that FAC capability appeared in the CPD. Bellingham suggests that the reason why the RAAF did not have a CPD serial for FAC is because it understood that the PC-9/As were not suitable for operational deployment, which meant that its operational FAC capability was limited to ground based personnel only.

The experience of preparing for operations in Timor-Leste had clearly demonstrated that the ADF did not have a robust FAC capability. To address this concern, Bellingham commenced a grassroots campaign within both the RAAF and Army to improve the capability but he met considerable organisational resistance at the strategic level of both organisations. Bellingham felt that because there was no joint enforcer telling both the RAAF and Army to fix the issues, he was unable to create the organisational momentum necessary to push through the apathy that existed around the provision of a robust FAC capability.

⁸⁹ David Wilson, Warden to Tanager: RAAF operations in East Timor, Banner Books, Maryborough, Qld, 2003, pp. 32–34

⁹⁰ Ground based FACs would have had to be deployed with the land forces in Timor-Leste, FAC (A) with their aircraft on standby in Australia.

Within the RAAF it is probably incorrect to characterise the prevailing attitude at the time as resistance. What Bellingham experienced was an inability to convince the RAAF strategic leadership of the need to resource an improvement of the capability. Bellingham believed there was no empathy for the FAC capability within the RAAF because very few senior Air Force officers had any practical experience operating within the joint environment of the Theatre Air Control System (TACS). They may have dropped bombs while operating in the TACS but that had not given them the familiarity needed to fully comprehend the capability concerns. The attitude displayed by senior RAAF leadership was consistently 'how hard can this be, just make it happen' but with no commensurate agreement to increase resources to improve the capability.

Within Army, the attitude displayed towards improving the FAC capability could be characterised as resistance created by cultural differences between the organisations. As part of the proposed improvements for the capability, the RAAF wanted to introduce a FAC management scheme that included both categorisation and currency requirements. While this was normal business for the Air Force it was a resisted concept within Army. Bellingham describes how the categorisation and currency scheme being recommended by Air Force was perceived by Army as a level of unrequired complexity, whose management would create an additional burden on already scarce resources. What the Army probably did not appreciate was that the RAAF's position was also based on resource concerns. A significant amount of air combat resources was expended to support FAC training, and Army's tendency to allow trained FACs to 'fall off the radar' seemed to waste those precious training resources.

To the credit of the senior leadership team within Air Combat Group, which included a future Chief of Air Force, Air Marshal Geoff Brown, they did eventually agree to the creation of a new unit to specialise in FAC capability. In 2002, the Forward Air Control Development Unit was stood up to manage the creation and sustainment of the FAC capability. Perhaps predictably, the resources provided to stand up the new unit reflected the historical organisational value the RAAF had placed on the capability. The creation of the new unit was authorised on the condition that it be completed in a 'resource neutral' fashion, which effectively meant that no additional funds would be allocated to improve the robustness of the capability.

The limited organisational momentum that Bellingham was able to generate did not occur in enough time to ensure that the ADF was prepared to provide the required level of FAC support to operations in Afghanistan when Australia's commitment commenced in November 2001. The importance of appropriately trained FACs was, once again, highlighted early in the conflict. During Operation ANACONDA in March 2002, the ability of the coalition to apply air power effectively was, in part, hampered by a lack of clear understanding on what authority the ground FACs had to control offensive air support. Another major outcome from the operation was that ground troops could no longer call on United States air power for CAS unless the United States

⁹¹ Date and purpose sourced from the Official Unit History of FACDU and No. 4 Squadron.

⁹² Headquarters United States Air Force, *Operation ANACONDA: an air power perspective*, 7 February 2005, p. 40

Air Force (USAF) accredited the ground controller. The operation also highlighted how much Special Forces would need to rely on CAS to provide fire support in the mountainous terrain of Afghanistan.

To meet these operational requirements the ADF needed Special Forces operators who were trained and current in FAC. Regrettably, this requirement had not been anticipated and those operators were not immediately available. This deficiency required the RAAF to train ten Special Air Service (SAS) operatives as FACs in a condensed four-week course that would meet the USAF's accreditation requirements. This unanticipated lack of FAC-trained SAS operatives could hardly be considered a failure of the RAAF FAC capability, but that was not the opinion of some senior officers within Army.

At the completion of the SAS operatives' training Bellingham accompanied them to Kuwait to ensure that their USAF accreditation was accepted. On arrival in Kuwait, Bellingham was ordered to report to the Australian National Commander's Office, for what he presumed would be a welcome meeting. He was wrong: in what must have been a particularly galling event for him, the Australian National Commander, an Army Brigadier, proceeded to lambast Bellingham for the RAAF's failure to provide the appropriate number of trained FACs. It was the Brigadier's opinion that it was the RAAF's job to 'harbour and nurture this capability' and that they had failed in that role. In reply, Bellingham politely pointed out to the Brigadier that Army had been disinclined to support the improvement initiatives for the capability, and that any progress had only been achieved through the actions of relatively junior officers at the tactical level.

Lieutenant General Rick Burr, when he was Deputy Chief of Army, agreed that the FAC capability was not at the required standard at the start of operations in Afghanistan but was hesitant to place the blame squarely on the RAAF's shoulders. Burr appreciated that each of the Services has to make strategic choices because of limited manpower, and that both Air Force and Army missed an opportunity to leverage off each other's strengths to create a more robust joint FAC capability.

This period was immensely frustrating for Bellingham. Having faced apathy from both the RAAF and Army in resourcing the required improvements for the FAC capability, he was then held responsible for the shortfalls. Ultimately, Bellingham's persistence, and the hard work of the members of the FACDU, produced excellent outcomes for the FAC capability. In 2009, the Chief of Defence Force issued a directive to remediate the air—land integration in the ADF that included a significant number of improvements for the FAC capability. In the same year the RAAF reformed No. 4 (FAC) Squadron with the additional resources necessary to more effectively manage the capability. While there was finally a positive outcome for the capability, it still left the obvious question of why it took multiple operational failures to create the organisational imperative to fix the FAC capability.

⁹³ Lieutenant General Rick Burr AO DSC MVO (Retd), Interview, 4 July 2017

⁹⁴ Australian Defence Force, CDF Directive 12/09 - Remediation of air-land integration in the ADF, 2009

The provision of a robust FAC capability was a clearly defined joint responsibility of the RAAF and, to a certain degree, also a joint responsibility of the Army. Its importance as a capability had both strong historical and doctrinal linkages, and the continuing relevance of the role had been proven repeatedly in operational settings. Despite all this evidence, and the repeated attempts of officers at the tactical level to remediate the problem, at the operational and strategic level of command both the RAAF and Army were content to allow the capability to maintain significant operational deficiencies. Further analysis of why the RAAF, and to some degree Army, allowed this situation to continue will be provided after two additional examples are discussed. This will allow a more thorough review of the trends observed across all three examples.

2.8 Joint precision airdrop

The RAAF defines airborne operations as an 'activity conducted within an active theatre of operations to deliver or extract combat ready forces and their logistic support.'95 To achieve delivery of these items to a land force, the RAAF either conducts an airland or an airdrop operation. An airland operation involves landing an aircraft in close proximity to the land forces, and an airdrop operation occurs when items are delivered by parachute. The preference is to undertake airland operations because they reduce the potential for damage, which is a very real possibility when people and cargo are delivered via parachute. 96

The ability to resupply land forces via airdrop has existed since the beginning of military aviation. In Mesopotamia in December 1915 a combined British and Indian land force was surrounded and isolated by Turkish forces in the fortress town of Kut. Captain Henry Petre, an Australian pilot flying in the Royal Flying Corps, devised a method of resupplying the besieged British and Indian garrison by air. In what is presumed to be one of the first uses of airdrop, Petre and the British aviators dropped almost six tonnes of 'food, medical supplies, wireless parts, fishing nets and rifle cleaners.'97 One of the most famous uses of airdrop during combat operations occurred in Vietnam in the spring of 1954, when the Viet Minh surrounded a French force during the battle for the valley of Dien Bien Phu. Though it would eventually lead to a defeat for the French, that capitulation would have occurred more rapidly if the isolated French garrison had not been sustained by airdrop. During the conflict the 'ability to maintain a constant flow of parachuted supplies became fundamental to the French force's survival and it required up to 1,000 separate packages to be delivered per day.'98

⁹⁵ Royal Australian Air Force, *The air power manual*, Seventh Edition, p. 4-14

⁹⁶ Australian Defence Force, Australian Defence Force Doctrine Publication (ADDP) – 3.9 – *Airborne operations*, Defence Publishing Service, Canberra, November 2011, pp. 1–4

⁹⁷ Alan Stephens, *The Australian centenary history of Defence, volume 2, The Royal Australian Air Force*, p. 8

⁹⁸ Martin Windrow, *The last valley: Dien Bien Phu and the French defeat in Vietnam*, Da Capo Press, Cambridge, MA, 2006, p. 433

Airborne operations at Dien Bien Phu also highlighted some of the capability's operational risks and logistical issues, which are extremely relevant to the RAAF example being presented. The first important issue is the relationship between the altitude that parachute delivery occurs and its effect on accuracy. During the conflict, due to the risk of Viet Minh ground fire, the French aircraft were required to drop the parachutes from a higher altitude with 'an attendant penalty in the wider scattering of loads and the consequent difficulty of recovering them – because the higher the parachute opens, the more time it has to drift off the drop zone.'99 The second major issue was the logistic tail required to support airborne operations. Due to the isolation of the French forces in Dien Bien Phu, none of the 1,000 parachutes being dropped per day could be returned from the combat zone. This meant that there needed to be a constant resupply of parachutes, which ultimately led to the French needing to airlift 60,000 parachutes from bases in Japan and the Philippines.¹⁰⁰

As history has amply demonstrated, airdrop can become an essential lifeline to land forces that are unable to be resupplied by other means. Though this has traditionally been considered in the combat setting, it can equally apply to any situation where a land force, or even a civilian population, becomes isolated and is unable to be resupplied by more traditional means. Airdrop also provides land forces with other operational advantages. In some circumstances, it allows a ground force to be deployed in a lighter, and therefore more manoeuvrable, configuration because they do not have to carry a full mission's logistical requirements. Airdrop can also reduce the risk to land forces by removing a requirement for them to traverse contested territory to achieve resupply. Unlike the FAC capability, the essentiality of airdrop is recognised by its consistent inclusion within the ADF's preparedness requirements, which should guarantee its availability for operations.

Air Commodore William Kourelakos, a previous Deputy Air Commander Australia, had a long history within the air mobility capability, having been deployed on approximately 20 operations as aircrew, staff and within executive roles. His tactical airdrop experience included having been aircrew on the RAAF's primary airdrop platform the C-130 Hercules, and also as the Commanding Officer of the Air Movements and Training Development Unit which is the ADF unit responsible for creating, testing and authorising airdrop procedures. Kourelakos believes that he may have had a different view from his peers on the RAAF's joint responsibilities because his formative years were spent within the Canadian Armed Forces where a greater organisational emphasis was placed on joint responsibilities. What follows is from Kourelakos' personal account of his observation of the priority given to the joint role of airdrop within the RAAF from 2004 to 2012.¹⁰¹

In 2004, Kourelakos was deployed to the Middle East as the executive officer of Task Group 633.4, which was the ADF C-130 deployment based in Qatar at Al Udeid Air Base. The role of this task group was to provide general airlift support to coalition operations within the region. Due to

⁹⁹ Martin Windrow, The last valley: Dien Bien Phu and the French defeat in Vietnam, p. 429

¹⁰⁰ Ibid., p. 434

¹⁰¹ Air Commodore William Kourelakos (Retd), Interview, 18 April 2017

the limited number of Australian forces deployed at that time, the C-130 task group was able to provide a significant amount of support to other coalition nations. During this period the Australian detachment got an excellent reputation for providing flexible and reliable airlift support because they were able to complete a wide range of tasks including aeromedical evacuation. The reputation meant that Kourelakos was able to build a strong working relationship with the US Director of Air Mobility Division (DAMD), the senior officer who ran airlift operations within the Middle East theatre of operations, a relationship that proved useful when Kourelakos was presented with a specific Australian operational requirement.

In 2004, the Australian Army Training Team Iraq (AATTI) was based in northern Iraq, in a fortified compound known as Al Kasik, which was approximately 15 km northeast of a small town called Tal Afar. On the opposite side of Tal Afar was a US controlled forward operating base that had a C-130 capable airstrip, which was being used to provide logistic support via airland operations. The forward operating base was crucial as the main supply route supporting the AATTI, but this meant that those supplies needed to be road moved through the contested territory between both locations. ¹⁰² Unfortunately, most convoys that attempted the dangerous journey 'simply did not make it, with an average of one out of four ever getting through.' This inability to road move supplies led to the AATTI having a lack of equipment, rations and basic teaching stores. ¹⁰⁴

In response to this situation, Commander Joint Task Force 633, Air Commodore Greg Evans, contacted Kourelakos to discuss potential solutions. Evans was concerned that on several occasions the AATTI's convoy of Australian Light Armoured Vehicles (ASLAVs) had been engaged by enemy fire while undertaking the transit between their compound and the airfield, and he was looking for options to mitigate this risk. One potential option was for the Australian C-130 task group to airdrop the required supplies directly to the AATTI at Al Kasik. In response Kourelakos set about organising an airdrop trial, using small loads, which would act as a proof of concept for the proposed solution. Kourelakos discussed the trial with DAMD and got support to drop actual supplies to Al Kasik. Having been trained in airborne operations in a combat environment, Kourelakos prepared for the trial by having photograph reconnaissance taken of the location, by organising offensive support aircraft to be available to conduct a show of force if required, and by ensuring that both drop zone controllers and load riggers were available to support the task.

The day prior to the planned trial Kourelakos made mention of the airdrop operation in his daily situational report, which was sent to both his operational and technical chains of command. In the ADF, deployed forces normally have two chains of command. The operational chain of command has operational control (OPCON) over the deployed force that allows the commander to direct

¹⁰² John Blaxland, *The Australian Army from Whitlam to Howard*, Cambridge University Press, Port Melbourne, Vic, 2014, p. 245

¹⁰³ Shannon Joyce, 'From out of the shadow,' Contact Air Land and Sea, issue 6, June 2005, p. 42

¹⁰⁴ Ibid.

forces to conduct specific missions that are normally limited by function, time or location. ¹⁰⁵ The technical chain of command, which is normally retained by the parent Service, exercises technical control (TECHCON) over a deployed force that allows them to make decisions on the specialist or technical aspects of operations. ¹⁰⁶ In relation to the airdrop trial arranged by Kourelakos, the operational command chain approved the activity but the technical command chain, the RAAF, did not provide approval for the trial to proceed.

Kourelakos believes there were two main reasons why the RAAF decided not to provide approval. The first was associated with the potential threat to the aircraft and the aircrew undertaking the task. This specific airdrop task would require the C-130s to operate at an altitude where they could possibly be engaged by surface-to-air weapons that were purportedly available to the enemy. While this attitude disappointed Kourelakos, because he believed the RAAF failed to compare Air Force's risk to those risks being experienced by the ground convoys, a discussion on the appropriateness of that comparative risk decision is outside the scope of this book. What is in scope, though, is the second reason the RAAF gave for cancelling the trial.

Kourelakos believed that the RAAF did not want to undertake the trial because it may have set a precedent for operational support that the airdrop capability would be unable to sustain. If the airdrop trial was successful at Al Kasik an expectation may have been created that the RAAF would continue to provide that level of support, a task the technical chain believed was unsustainable. The major issue was that within Air Force the airdrop capability was hollow: while there was just enough trained crews and equipment to claim the capability existed, there had been little or no investment to create a sustainable joint capability. The reason why the capability was not considered sustainable is a complex picture of inter-related issues.

One of the primary reasons the airdrop capability was not sustainable was because the crews being generated for deployment were being selected on their airland, not their airdrop, qualifications, which meant that there was no guarantee that the next crews selected for deployment would be capable of undertaking the airdrop task. In the long term, training in Australia could be amended to include airdrop but the logistical tail had not been created to support any increase in airdrop operations. The logistic arrangements to provide, recover and repack parachutes were 'at best' a training capability, and no provision had been made for the operational use of parachutes. Requiring the crews to be trained on airdrop prior to departure would consume all the available ADF parachute resources. If it was then decided to divert those scarce training resources to operational use, then the RAAF would quickly run out of parachutes to undertake training at home.

Similar to the FAC capability, certain aspects of airdrop are provided by Army and they also suffered from a lack of resourcing. The Army workforce that created the required airdrop loads,

¹⁰⁵ Australian Defence Force, Australian Defence Force Doctrine Publication (ADDP) – 00.1 – *Command and control*, Defence Publishing Service, Canberra, May 2009, pp. 3–10

¹⁰⁶ Ibid., pp. 3-13

at No. 176 Air Dispatch Squadron, was also a 'one shot' resource. If the air dispatchers had been diverted to provide an ongoing operational airdrop capability, then their capacity to support training activities would have been vastly reduced. The hollowness of the ADF's joint airdrop capability meant that it could only just support the training capability in Australia, and if those resources were diverted to ongoing operational tasks, the entire system used to generate the airdrop capability would become unsustainable.

While there may have been an expectation that the RAAF could meet its joint responsibilities to support land forces with airdrop, this requirement was unable to be achieved in a sustainable manner. In response to the operational tasking received in theatre the Officer Commanding No. 86 Wing (the Air Force organisation responsible for the airdrop capability) issued a list of 20 domestic and deployed requirements that needed to be satisfied prior to the RAAF undertaking airdrop within the Middle East area of operations, a list that was not accomplished prior to Kourelakos completing his operational deployment.

In 2007, Kourelakos returned to Al Udeid as commander of the C-130 detachment. On arrival, he conducted a visit to the other Australian task group commanders to determine the support they required. This included a visit to the special forces (SF) task group in Tarin Kowt. The Commanding Officer of the SF task group indicated that US forces were providing their current airdrop requirements because the RAAF had not agreed to complete the task. The airdrop requirement needed by Army was the ability to resupply SF patrols mid-operation, so that the length of those patrols could be extended. While the US forces had indicated a willingness to support the task, they were unable to guarantee its provision because support to Australian SF was not a primary task allocated to the USAF. This lack of mission assurance was unacceptable to the SF commander and he wanted the RAAF C-130 detachment to undertake the task so they could get a guaranteed level of support.

Kourelakos had the required level of capability to undertake the task. Within the C-130 detachment he had special operations crews that were specifically trained to conduct airdrop at night and in a threat environment. On this occasion, Kourelakos also had the necessary logistical support in theatre because the SF had deployed both the personnel to build the required airdrops loads and the parachutes required to complete the delivery. Having learnt from his previous experience, before commencing any planning for the event, Kourelakos sought approval from both the OPCON and TECHCON chains of command by writing a document that detailed the situation, the requirement, the effect desired and the proposed solution. Once again, the primary risk associated with the proposed solution was that the airdrop needed to be conducted at low level, which placed the aircraft within range of potential enemy surface-to-air weapons.

The reason that the airdrop could not be achieved from a higher altitude was because the desired drop locations were within mountainous terrain. In very simple terms, traditional airdrop loads from aircraft do not descend straight down. Factors such as the aircraft's speed and atmospheric winds mean that the ballistic path the load follows nearly always has a high degree of horizontal or sideways movement. The potential for horizontal movement increases with altitude because the airdrop load is airborne for longer and has more time to be affected by environmental conditions.

High altitude drops in mountainous terrain do not always work because the sideways movement does not allow the load to be delivered between terrain features. The only conventional solution in this scenario is to reduce the amount of sideways movement by dropping the load from a lower altitude.

In reply to his proposal, Kourelakos received approval from the operational command chain who accepted the level of risk associated with the operations, but he did not receive approval from the RAAF who, once again, were unhappy with the level of risk associated with operating the aircraft inside the range of the enemy's potential ground-based weapons. Even though Air Force had not supported the proposal, they did accept the operational need to undertake this type of airdrop task and proposed acquiring a new airdrop system to be able to satisfy the requirement within acceptable risk parameters. The RAAF proposed acquiring the Joint Precision Airdrop System (JPADS) to solve the operational requirements. JPADS is an airdrop system that gets around the issues of sideways movement by using a combination of global positioning systems (GPS) and a steerable parachute. JPADS means that an airdrop load no longer has to follow a ballistic path, and if it is released within the correct parameters it can autonomously track towards a desired drop zone. Due to the lead times associated with acquiring the JPADS system, Kourelakos never saw the system in operational use, and during his deployment the RAAF was never able to provide the requested level of airdrop support. Jose

Unfortunately, Kourelakos' next involvement with JPADS demonstrated that the RAAF's attitude towards its joint commitment to airdrop had not significantly improved. In 2009, Kourelakos became the Commanding Officer of Air Movements and Training Development Unit (AMTDU) and immediately became aware of sustainability issues with JPADS. As part of the C-17 Globemaster acquisition project the RAAF had acquired seven JPADS sets, but these had not been acquired as a fully sustainable capability; they had only been purchased as a trial. This meant that funding had not been allocated to purchase the logistics support necessary to sustain the capability at a level that would meet Air Force's preparedness requirements. Kourelakos took this sustainment issue to the Air Mobility Board, which is a one-star level meeting that manages most of the operational issues for the air mobility capability. At the Board, Kourelakos argued for additional funding so that the RAAF could maintain an airdrop capability that could be employed when an enemy surface-to-air threat existed.

Disappointingly, but perhaps predictably, the discussion at the Board centred on who should be responsible for providing the additional funding to create a sustainable airdrop capability. Some members of the Board believed that because Air Force was providing this capability in direct support of Army, the land force should pay for the logistic support requirements of JPADS. Concerns over funding meant the Board did not agree to purchase a sustainable capability. The Board only agreed to update the current trial systems, which meant that the RAAF would only

¹⁰⁷ Eamon Hamilton, 'Delivered exact precision', RAAF News, 27 August 2015

¹⁰⁸ The RAAF did manage to have operational C-130 crews trained on JPADS in 2008.

maintain a training capability for JPADS. This meant that JPADS could not be employed as a sustainable operational capability, and therefore would not be available to solve the operational risk issues that had limited the RAAF's ability to meet its joint airdrop responsibilities in the past.

Concerns over who should pay to create a robust airdrop capability within the ADF were not only confined to the RAAF. During his posting as Staff Officer Capability Management (SOCM) inside Air Mobility Group, Kourelakos decided that he needed to take direct action to clarify the RAAF's preparedness requirements for airdrop. His plan to improve preparedness was to create a directive from the Commander Air Mobility Group, to the subordinate wing commanders that detailed the specific platform, crew and equipment requirements necessary to create a robust airdrop capability. As part of that process, Kourelakos approached Army to clarify the number of platforms and the rate of effort they wanted to meet their airdrop requirements. Army refused to provide an answer because they did not want to specify a requirement that Air Force could then use as justification to increase the training effort. Army presumed, perhaps correctly, that Air Force would then demand that they pay for the associated increase in logistics to support the new training effort. Any increase in RAAF's training effort could also result in Army having to provide a larger number of personnel, such as air dispatch and landing zone teams, to support the joint capability. Quite cleverly, by not providing an answer, Army maintained an unbounded expectation of support, with no possibility that Air Force could then seek additional funding from them for the airdrop capability.

What Kourelakos' experience revealed is that, even though the RAAF had a joint responsibility to create a robust operational airdrop capability, the organisation chose not to apply the resources necessary to maintain it in a sustainable manner. This meant that when Army requested operational airdrop support in the Middle East, the RAAF was not fully prepared to undertake the task. While some of that inability to complete the mission was associated with a genuine concern over the vulnerability of the aircraft to ground fire, the resultant JPADS acquisition once again showed an organisational tendency to treat airdrop as a training capability. JPADS was supposed to be a solution to an actual demonstrated joint requirement to provide airdrop support to Army in a contested ground environment, and while the RAAF progressed the acquisition of the system, it did so in a manner that showed no real commitment to creating an operational airdrop capability.

2.9 Air liaison officers

An air liaison officer (ALO) is a member of the Air Force who is integrated into the headquarters of either an Army or Navy organisation. As its name suggests, the most basic function of an ALO is to improve the communication flow between the respective Services, but that simplistic understanding of the role does not adequately describe its importance. The true role of the ALO became apparent in World War II, where the greatest lesson of the war was the 'extent to which

air, land and sea operations can and must be coordinated by joint planning.'109 The ALO became essential to effective joint planning because they were the 'integrators'. The ALO needed to interpret Army's or Navy's planned operations and determine what air support would be needed to create the required joint combat effect. This meant that the ALOs needed to become experts in multiple domains, a requirement that was highlighted in American doctrine in 1943 when it stated 'air liaison officers will be officers who are well versed in air and ground tactics.'110

Australian forces got first-hand experience of the continued importance of the ALO role in Vietnam where RAAF officers 'provided advice to the ground commander on the use of tactical air support.'¹¹¹ In Vietnam, ALOs at both the divisional and brigade levels became an integral part of the land forces headquarters and essential to effective joint planning, a belief that continues to exist in today's Australian Army doctrine. The Army describes the Brigade Air Liaison Officer (BALO) as the Brigade commander's principal air component adviser, who provides subject matter expertise to the Brigade for the planning, employment, coordination and control of supporting Air Force capabilities.¹¹²

While it would be difficult to describe the ALOs within the RAAF as a joint capability, they are clearly an essential element of Air Force's ability to closely integrate with both Army and Navy. As the previous examples in this chapter demonstrate, one of the biggest issues facing RAAF is understanding what expectation the Services have for air support and, perhaps more importantly, being able to identify when demand for a particular Air Force capability is becoming more operationally or doctrinally relevant. The ALO provides the means for the RAAF to understand the other Services' current and future requirements. Unfortunately, as the following quote from Air Commodore Bellingham identifies, the RAAF has not historically respected the ALO role and the proactive potential of the position:

For years we sent average quality people to the ALO positions because we did not value what they were doing. We marginalised those positions, and that did so much damage to joint capability. We have to invest in those positions because they are unitary in nature, and that means that one person can do so much damage to joint in a two year-posting, because they are the face of Air Force. 113

¹⁰⁹ General Henry Harley Arnold, 'Our air power and the future: from the Third Report of the Commanding General of the Army Air Force to the Secretary of War', 12 November 1945, viewed April 2017, http://saltofamerica.com/contents/displayArticle.aspx?18_379

¹¹⁰ United States War Department, War Department Field Manual FM 100–20: Command and employment of air power, July 1943, p. 10

¹¹¹ Air Vice-Marshal GW Neil (Retd), 'Forward air control operations in South Vietnam', in John Mordike (ed), *The RAAF in the war in Vietnam: proceedings of the 1998 RAAF History Conference*, p. 65

¹¹² Australian Army, Land Warfare Procedures – Combat Arms (Offensive Support) LWP-CA(OS) 5-3-3, October 2010

¹¹³ Air Commodore Stuart Bellingham DSC AM CSC (Retd), Interview, 18 May 2017

Air Commodore Andrew Lancaster has been employed as the Director of the Air Component Coordination Element (DACCE) and the Divisional Air Liaison Officer (DALO) inside the ADF's Deployable Joint Force Headquarters (DJFHQ). He also has a strong joint heritage, having originally been an officer in the Royal Navy. Lancaster is one of the most qualified RAAF officers to discuss air—land integration, with very few officers within the organisation having spent more time in direct contact with the Army within the DJFHQ. What follows is his perception of the value the RAAF placed on the ALO network during his employment within the field.¹¹⁴

Lancaster believes that BALOs are the most critical positions for achieving successful integration with Army. It is the coalface for joint integration between the two Services, and BALOs can heavily influence the degree to which air power is integrated into the brigade's planning and execution. Army brigades maintain a leadership group that contains the Brigade Commander, the Brigade Major, the Commanding Officer of the Artillery Regiment, a legal officer and the BALO. This is a highly trusted position for an Air Force officer and it requires the individual to form strong working relationships within the leadership group. To succeed in an environment that has little tolerance for ineptitude, the BALO has to be highly capable, and the individual needs the right character to be able to interject and ensure that Air Force capabilities are being used in the most effective manner to complement the ground scheme of manoeuvre.

Lancaster, like Bellingham, suggests that traditionally the RAAF has placed little or no value on the BALO and DALO positions, and has not seen the potential of the position to increase joint capability through greater integration. The RAAF has tended to see the ALO positions as jobs that they simply needed to 'find a body for'. There was no career planning for the positions, no preparation or additional training, and the individuals selected rarely had any real qualifications or experience to undertake the role. Lancaster holds himself up as an example of this philosophy. Prior to being selected as the DALO, he had no specific air—land integration experience and had spent the majority of his time in the maritime environment as aircrew on an AP-3C Orion maritime patrol aircraft. For a significant period, the ALO jobs have been 'backwater positions' that got almost no priority within the RAAF.

The lack of priority placed on Army integration positions has also been evident in the appointment of the one-star Director of the Air Component Coordination Element (DACCE) role during key joint exercises. For limited periods each year, the RAAF is asked to provide a one-star to act as the primary conduit between the Joint Force's Air Component Commander (JFACC) and Land Component Commander (JFLCC), a position that is designed to ensure that air power is being effectively integrated into land component operations. Unfortunately, instead of seeing this exercise role as a rare and valuable opportunity to provide senior RAAF officers with joint integration experience, since 2011 the RAAF has chosen to fill the position with retired reserve officers.¹¹⁵ By dedicating reserve resources to the role, it suggests that the organisation does not

¹¹⁴ Air Commodore Andrew Lancaster CSC (Retd), Interview, 12 April 2017

¹¹⁵ First use of a reservist one-star to fill the position of Director of the Air Component Coordination Element during a major joint exercise was undertaken during Exercise Talisman Sabre 2011.

consider it a worthwhile development opportunity for future leaders. Lancaster believes that the RAAF is missing a trick by using reserve officers, because the organisation is overlooking an opportunity to form a strong joint relationship with the Commander of the 1st Division, who is normally selected to be the JFLCC.

Lieutenant General Rick Burr, a former Commander of the 1st Division, indicated that the provision of quality permanent ALOs is the biggest area where he needed to get more traction with the RAAF. When he was in the Division, Burr believed that Air Force's attitude was that it did not believe it required a robust permanent air liaison arrangement. The RAAF was seemingly happy to control everything from the Air Operations Centre and then provide reservists when the exercise tempo required additional manning. Burr stated that while this was a workable arrangement, it nevertheless spoke to the 'heart of what it takes to be a good joint team player'. Burr believes ALOs needed to have a more permanent presence so that they could live the joint experience day to day. While providing a temporary solution met the requirement, those individuals were unlikely to experience the totality of the joint positions. A part-time solution also made it unlikely that the capability would be refined, and meant that joint integration would not become part of the RAAF's overall culture.

Burr suggested that while providing a reservist one-star for the DACCE role met the training need, it did not appear to invest in the future because the RAAF had chosen not to expose potential senior leaders to that level of joint command and control. He felt that it sent the message that the Air Force did not value the opportunity. In summarising Air Force's attitude Burr suggested that they wanted him to trust that they would provide the correct level of support, and they said all he had to do was ask for it, but what they did not understand was 'how do you know what support to ask for if you have not got the right people and you're not living it day-to-day?'

Air Marshal Mel Hupfeld, who was the Air Commander Australia when Major General Burr was the Commander of the 1st Division, agrees that the RAAF did not place enough value on the air liaison structure, and that this was a cultural change that he was trying to manage with Burr. Hupfeld accepts that the RAAF did not support the air liaison network and that they did not release the best people for the job. Hupfeld indicated that the RAAF did not recognise the strategic importance of those positions, so they did not select the right people to go there, and that Air Force culture was not aligned to demonstrate that they were relevant and important jobs. Hupfeld also believed that treating the ALO positions in this manner created a vicious circle:

once you start a pattern of sending lower quality people to those jobs, then talented people see that precedent and presume the position is not valued. You have to break that nexus by changing the perceived value of the position. ¹¹⁷

If the ALO positions provided to support joint integration with the Army have been given a relatively low priority within the RAAF, then Lancaster believes that the Air Force's commitment

¹¹⁶ Lieutenant General Rick Burr AO DSC MVO (Retd), Interview, 4 July 2017

¹¹⁷ Air Marshal Mel Hupfeld AO DSC (Retd), Interview, 6 July 2017

to joint integration with Navy has been even worse. Until the RAAF created the Fleet Air Liaison Officer (FALO) position within the Royal Australian Navy's Fleet Headquarters in 2017, they had not been able to provide a consistent method of ensuring joint integration with maritime forces. Lancaster indicated that creation of the FALO position was an organisational response to some fairly significant gaps that had developed in the integration between the RAAF and Navy.

An important issue that came to light was the lack of a robust Air Force concept to support amphibious operations. In November 2014 the first of Navy's two amphibious assault ships, HMAS *Canberra*, was commissioned and brought about a 'significant increase in amphibious potential to the Australian Defence Force'. When Lancaster became DACCE in January 2016, it became apparent that even though the two amphibious ships were now operational, there had been little or no development of a concept that would allow air power to integrate into a joint amphibious operation. In the ADF's amphibious operations doctrine, released in 2009, the air component commander has the responsibility for coordinating and controlling all non-organic air support. Lancaster points out that while the lack of a support concept does appear to suggest an omission by Air Force, Navy also was not pushing for that support concept to be provided.

Lancaster believes that a lack of push or pull from the other two Services is one of the major reasons why joint integration is given a lower priority in the RAAF. For Air Force, providing greater joint integration normally means that it needs to be prioritised over an internal Air Force capability. Lancaster believes that for this to happen the other Services need to identify an operational need for that priority, something they are not capable of doing because they do not understand the air domain enough to be able to clearly enunciate a shortfall in the support. For the other Services there is just an expectation that the RAAF will provide the air support required, and they do not appreciate the complexities of air power enough to understand the integration it requires.

Lancaster does not think that the Air Force purposely ignores joint integration requirements, but because of all the other competing capability requirements, it will not proactively seek out shortfalls in joint integration. This creates a situation where the RAAF will not prioritise joint integration unless they are asked to do it, but the other Services are unlikely to ask for the required support because they do not appreciate the level of integration required.

It is this almost unintentional lack of priority towards joint integration that should make the ALO positions even more important. Many of the joint capability issues that have been identified within this chapter may have been averted if Army air power support requirements had been identified and clarified. Lancaster believes it will not improve until the RAAF chooses to professionalise the ALO capability. By employing RAAF officers who have little or no joint integration experience, a steep learning curve is created that makes it unlikely that they will ever fully understand integration requirements. Lancaster suggests that if the RAAF 'is going to be credible as a Service

¹¹⁸ Australian Department of Defence, Media Release, 'HMAS Canberra joins the fleet', 28 November 2014

¹¹⁹ Australian Defence Force, Australian Defence Force Doctrine Publication (ADDP) – 3.2 – *Amphibious operations*, Defence Publishing Service, Canberra, January 2009, pp. 2–13

in a supporting role, to a supported commander, then you need to have a permanent, professional and habitual presence in those relevant headquarters. Lancaster believes that the biggest change that still needs to occur within Air Force is the creation of a culture that treats joint integration requirements in a proactive manner.

2.10 Case study summary

In comparison to the first case study, the evidence delivered in this air—land integration example may seem anecdotal in nature because of its heavy reliance on personal accounts. While there may be some validity to this criticism, the sources used make the evidence compelling. Each of the examples is based on the contemporary experience of senior RAAF officers who are recognised experts in joint capability provision. Bellingham, Kourelakos and Lancaster all felt compelled to provide their personal accounts because they believe that the RAAF has not provided the correct level of priority to their specific joint capability, and each of them expressed a desire to try and influence a change in organisational attitudes towards jointness. Because of the contemporary and operational nature of these examples, they cannot be supported by a significant amount of official documentation which remains classified, but this should not diminish the authority of their accounts.

Before moving on to discuss the major issues that concern both case studies, it is important to summarise the similarities identified within the three examples provided within air—land integration.

The first parallel is that they were all recognised joint capabilities that had historical precedence and doctrinal support. While they may not have been employed operationally by the RAAF for a considerable period, this was not because their ongoing relevance had been operationally disproven. The lack of operational use was most likely because the ADF had extremely limited experience of warlike operations between the cessation of their commitment in Vietnam in 1972, and operations commencing in Timor-Leste in 1999. So despite a lack of operational use, none of these joint capabilities was new and each was still considered a relevant joint requirement.

The RAAF did understand the continuing relevance of these joint capabilities but had chosen not to maintain them as fully operational. Both FAC and airdrop capability were not appropriately resourced to maintain the equipment and logistical support necessary to consider them operationally available. Instead, Air Force chose to maintain them as *training capabilities* where individual skill sets could be partially maintained, but the capability could not support sustained combat operations. Air Marshal Hupfeld believes that this decision to maintain certain roles as training capabilities was a deliberate decision by the RAAF to 'cut the tail to be able to support the teeth'. These were priority decisions made by the RAAF to reduce the sustainability of

¹²⁰ Lex McAulay, The Battle of Long Tan, p. 153

¹²¹ Patrick Lindsay, *Cosgrove: portrait of a leader*, Random House Australia Pty Ltd, Milsons Point, NSW, 2006, p. 125

¹²² Air Marshal Mel Hupfeld AO DSC (Retd), Interview, 6 July 2017

capabilities that they believed were less operationally relevant. It does also suggest that the roles kept as training capabilities were not seen as the 'teeth' or the 'pointy end' of Air Force.

In each of the examples the lack of priority placed on the joint capability had a negative effect on the operational effectiveness of the ADF. In relation to FAC and airdrop this reduced effectiveness manifested itself in an inability to create the joint effect required. In both cases Army had a reasonable expectation that the RAAF would provide the requested level of support, but because the joint capabilities were not operationally ready, the required effect was unable to be delivered. While it is harder to demonstrate the effect of under-valuing the ALO capability, the examples of reduced inter-service integration provided demonstrate the potential downside of not resourcing the individuals who identify shortfalls in joint integration, and who can predict the increasing operational relevance of certain air power capabilities.

In the case of FAC and airdrop, the RAAF's capacity to provide the required effect suffered from a lack of clearly defined requirements and responsibilities. While Air Force should have known that it needed to maintain a joint capability, a lack of clarity on what the joint requirement was meant that the RAAF could decide the level of capability it maintained. There was no preparedness requirement contained within the CPD for FAC, and the CPD entry for airdrop was not detailed enough to specify the duration, method or quantity of support required. Both joint capabilities also suffered from parts of their effect being delivered by multiple Services, which meant that the capability could be negatively impacted by overlapping or poorly specified responsibilities. This gave each of the Services the opportunity to point at a lack of commitment from the other Service as justification for their own decision to provide insufficient resources.

The final similarity in all the examples is that a shortfall in the joint capability did not go unnoticed by the organisation. In each example a middle-ranking Air Force officer identified the deficit in joint capability and attempted to create the organisational momentum needed to re-prioritise resources towards generating a more sustainable capability. These attempts were lengthy and, at times, frustrating because it was difficult to convince senior RAAF leadership of the need to change resourcing priorities. In the case of FAC and airdrop, operational relevance within the Middle East eventually created the organisational momentum required to create a change in priorities, and the ALO position changed in value when integration issues became a priority for the RAAF. In each example the increased priority was driven by a bottom-up approach from a joint champion within the organisation, rather than a top-down leadership driven requirement to appropriately support joint capability. The three joint capabilities identified within this case study were not organisational priorities until an individual officer, or group of officers, within the RAAF changed the leadership's understanding of the value and need for a joint capability.

2.11 Case study comparison

The scenarios for both case studies were purposely selected to provide examples of where the RAAF has failed to provide an appropriate level of joint support. In fairness, an equal number of scenarios could have also been presented where the RAAF has willingly provided an exceptional

level of support in the joint environment. On a daily basis, Air Force provides joint commanders with direct support through air mobility, surveillance and border protection activities. Creating a fair balance within the examples was considered unnecessary because the hypothesis being presented is not that the RAAF never prioritises jointness. The premise is that the organisation does not place the appropriate priority on *every* joint activity. Lieutenant General Burr provided an excellent summary of this nuanced position:

My sense of it is that Air Force does a lot of great stuff and it is a fantastically capable force. Like the other Services it has to make choices around which areas it invests in, and these are predominately people-based choices. It is within those choices where they decide not to do something, or not to do it wholeheartedly, that speaks to the bigger issue of how much Air Force values joint. This is not necessarily a criticism, perhaps more an observation, but as an Army person I would hope that Air Force would put a little more energy into the capabilities that act as integration functions for the larger parts of air power.¹²³

The primary aim of the case studies was to provide evidence that the Air Force has chosen not to prioritise certain joint capabilities, even when there was a clear operational imperative to do so. The remainder of the book now becomes about understanding the reasons why these occasional, but not insignificant or unimportant, lapses in joint support occur. Therefore, focusing primarily on the reasons why the RAAF may not have provided the appropriate level of joint support, there were two significant causes identified within the case studies. Firstly, that the RAAF's primary focus was on core Air Force capabilities. Secondly, that the expectation and requirements for the RAAF to provide joint support were not clearly communicated between the Services.

2.12 Air Force capability the priority

One of the strongest themes within the air support case study was that the RAAF failed to provide the required level of joint air support because it placed greater value, and therefore more priority, on what it considered to be core capabilities within Air Force. The inference from the case study is that during the 1960s and 1970s the RAAF placed a greater emphasis on introducing Air Force capabilities, rather than providing the joint roles of light aircraft and operationally essential helicopter support. This would suggest that within Air Force there was an internal ranking placed upon specific air power capabilities, which saw some roles as more important than others. When the implementation of new capability placed a resource squeeze on the RAAF, the joint roles of light aircraft and helicopter support were not seen as an organisational priority and underresourcing led to a failure in delivering the expected level of air support.

In relation to the air-land integration case study, a similar discussion on the relative importance of air power roles becomes apparent. Air Marshal Geoff Brown provided an extremely useful

¹²³ Lieutenant General Rick Burr AO DSC MVO (Retd), Interview, 4 July 2017

insight into the RAAF's internal priorities when he was asked about the lack of support given to the FAC capability:

Yes, perhaps we should have given airland integration more priority prior to Afghanistan, but you have to consider the historical perspective. While we may claim that integration is new wine, it is in fact old wine in new bottles. There were very high levels of cooperation that occurred in previous wars, but the entry point is usually low. This is because each of the three services is resource constrained in peacetime. I lived through the 1980s and [19]90s where we used to have to count photocopy paper, and we were flat out just keeping the aircraft flying. So what that forces you to do is to taper back, to just doing the basics, rolling through the system, and concentrating on force generation. Yes we would have dearly loved to do something more than Winjeels and FAC but there was no money and no resources to do it.¹²⁴

Brown makes it clear that in relation to the provision of FAC, in a resource-constrained environment RAAF's priority was to maintain core Air Force capabilities first. Brown's position makes sense when you consider that many of the RAAF's air power roles are inherently joint, and that giving those roles priority does not necessarily mean that Air Force is not prioritising jointness. Though if you look at Brown's statement in another way, it would suggest that the RAAF does not consider FAC as a core air power role that needs to be maintained. It is a 'nice to have' that can be tapered back when priority resource decisions need to be made. If resource constraints mean that the RAAF will prioritise certain air power roles, the question then becomes: What air power roles does the Air Force consider are more important?

The RAAF's *Air power manual* does not provide a strong indication of what air power roles Air Force considers important. Within the manual there are seven air power contributions identified as the way the RAAF contributes to 'joint effects.' The core air power contributions for the RAAF are listed as force generation, airbase operations, air command and control, counter air, air mobility, air intelligence and ISR (Intelligence, Surveillance & Reconnaissance) and air strike. The *Air power manual* states that there is no implied hierarchy within these air power contributions. ¹²⁶ So if there is no stated priority within the air power contributions, how does the RAAF prioritise which ones get the most support?

In *The Chiefs: a study of strategic leadership,* Nicholas Jans identifies that a Service Chief has 'extensive strategic power' in their responsibilities to raise, train and sustain military capability. When it comes to deciding what air power capabilities are supported within the RAAF, the ultimate responsibility sits with the Chief of Air Force, though it is unrealistic to expect that the

¹²⁴ Air Marshal Geoff Brown AO (Retd), Interview, 16 May 2017

¹²⁵ Royal Australian Air Force, *The air power manual*, Seventh Edition, p. 4-1

¹²⁶ Ibid.

¹²⁷ Nicholas Jans, *The Chiefs: a study of strategic leadership*, Centre for Defence Leadership and Ethics, Australian Defence College, Canberra, ACT, 2013, p. 7

Chief would make those decisions devoid of organisational influence. One of the reasons why the joint capabilities identified within the case studies were not maintained at the appropriate level is because Air Force placed a higher organisational value on other Air Force capabilities. If, as demonstrated in this chapter, the RAAF has a tendency to prioritise core Air Force capabilities over key joint enabling roles, then it becomes critical to understand what internal organisational forces may cause the RAAF to make those choices.

2.13 Ineffective inter-service communication

The second major theme that presented itself throughout the case studies was a consistent inability of the Service headquarters to accurately communicate joint responsibilities and requirements. In the first case study a significant amount of debate existed around whether the RAAF should have known that the Army was expecting them to provide a robust airmobile helicopter capability. Much of the discussion talked about the availability of clues, such as the acquisition of helicopters for battlefield mobility, the visit by the Commanding Officer of No. 9 Squadron to Vietnam, and the increasing request for greater integration from the Chief of Army. The obvious question this creates is why did the RAAF need to rely on clues? What was stopping the Army and the RAAF from sitting down together and working out what air support was needed?

In the second case study a similar trend was identified but made more complex by the joint ownership of certain capabilities. In relation to the FAC capability there was clearly a disconnect between what support Army expected the RAAF to provide and the manner in which the capability was created. There was also an inability to gain agreement on the methods to manage the joint aspects of the capability. Within the airdrop capability there was clearly an expectation from Army that Air Force was maintaining an operational capability that they could call on for support, even though airdrop was only being maintained by the RAAF as a training capability. The RAAF might have expected Army to know this because they had only provided limited resources to their portion of the joint capability. This inability, or unwillingness, to effectively communicate joint requirements was further highlighted by Army's refusal to clarify their airdrop needs because of concerns over cost shifting.

As identified in some of the examples, this disconnect over the level of support required was created by a lack of engagement between Air Force and Army to fully understand the joint requirements. Bellingham suggested that the frustration he experienced with FAC was because he had 'two organisations that understood the need but who did not want to prioritise the capability. Army wanted the output, Air Force wanted to control how it was created, but it did not remain a priority for either.' 128

To anybody outside of Defence the inability of the Service headquarters to effectively cooperate and communicate with each other over joint capability must be baffling. Though they are

¹²⁸ Air Commodore Stuart Bellingham DSC AM CSC (Retd), Interview, 18 May 2017

different organisations, they are part of the same defence force and supposedly share a common understanding that joint cooperation increases combat effectiveness. Despite these apparent commonalities, nearly all the examples highlighted an inability of the Service headquarters to communicate and cooperate effectively over joint capability. The RAAF is the primary air power provider for the ADF, which puts it in the unique position of having to enable the operations of the other two Services. To be able to achieve the expected level of support, Air Force needs the other two Services to communicate their expectations and requirements, and also to be able to cooperate on capabilities that have multi-Service components.

Effective strategic communication between the Services and the wider Department of Defence may allow the RAAF to place the appropriate priority on those joint capabilities that the department and the other Services consider essential. If communication is lacking, then the RAAF will have to undertake that prioritisation process in isolation, and those decisions could then be affected by the internal organisational preferences highlighted in this chapter. If ineffective inter-service cooperation is stopping the correct prioritisation of air power capabilities, then it becomes crucial to understand the organisational behaviour that reduces the effectiveness of strategic communication between the Services.

2.14 Summary

The primary role of an air force is the application of air power to create the required joint effects that meet the government's stated objectives. While the ideal scenario would be that an air force maintained every possible air power capability to support every potential contingency, the reality is that very few air forces in the world can afford to do so. The RAAF is no exception, and must decide what air power capabilities it keeps operationally ready and apply its available resources to those roles. The case studies presented in this chapter have shown that historically the RAAF has, on occasion, chosen not to maintain an enabling joint capability at an appropriate level of operational availability. In isolation, the examples presented may not have provided a convincing case, but in combination they create a more compelling organisational behavioural pattern.

Comparison between, and within, the case studies identified two primary reasons why the RAAF may have chosen not to prioritise the joint enabling capabilities in the examples provided. They are the RAAF's tendency to focus on core Air Force capabilities, and the inability of the Services and the wider Department of Defence to communicate effectively over the requirements and expectations of joint capability. The following extract from a previous Chief of Air Force's 2015 intent statement would indicate that the RAAF is aware of those causes:

We must therefore fully understand all aspects of how we support, partner and integrate with our sister Services, across Defence and with our allies. We must value all training and exercises that achieve the required joint outcomes, not just Air Force outcomes. If on occasion this means we must prioritise an Army, Navy or Joint raise, train and sustain

requirement over an Air Force requirement for the greater joint good, then we will. Our partners will trust us to provide the support that they need. 129

The statement clearly identifies the need to improve the RAAF's understanding of 'all aspects' of integration with the other Services, and also the need to consider prioritising a joint capability over an Air Force requirement. To achieve this aim the RAAF will need a good understanding of the organisational behaviour that resulted in the lack of priority displayed within the case studies. In relation to organisational behaviours, Robert Jervis warns that it is a 'common misperception to see the behaviour of others as more centralised, planned, and coordinated than it is'. Therefore, there is danger in pointing out the RAAF's pattern of behaviour because there is a possibility of creating a perception that the behaviour is the result of coordinated action within the organisation.

To avoid the trap Jervis describes, it is important to highlight that this book is not suggesting that the patterns identified are part of an organisational plan within the RAAF to reduce the value of jointness. The former Chief of Air Force's intent statement makes it very clear that the RAAF is actually pursuing the opposite outcome, an increase in the value of jointness. Based on a belief that there is no organisational intent to devalue jointness, the proposition is that the observed patterns of behaviour are more likely created by uncoordinated organisational influences. To fully explore this angle it is essential to investigate the potential sources of that influence. As a starting point, this book begins by discussing some relevant theory to get a better understanding of how organisations behave, before moving on to explore how aspects of this theory can be used to explain the organisational influences within the RAAF.

¹²⁹ Royal Australian Air Force, Chief of Air Force Commander's intent, Canberra, ACT, 2015, p. 16

¹³⁰ Robert Jervis, *Perception and misperception in international politics*, Princeton University Press, Princeton, NJ, 1976, p. 319

3

A theoretical framework for organisational culture and behaviour

It is often said that to fully understand what priorities an organisation has, you simply have to 'follow the money'. The majority of commentators in Chapter 2 would appear to agree with this sentiment, as most of them offered up the RAAF's unwillingness to resource joint capabilities appropriately as proof of its lack of commitment. The other important aspect of the commentary was that these priority decisions were being influenced by organisational predilections and biases. In particular, it was suggested that one of the primary influences for the RAAF was its organisational preference to place air combat capabilities (fighters and bombers) at the top of the priority list.

This belief that an organisation can have specific preferences and biases is a concept that needs to be further explored if we are to understand the complete range of factors that may be influencing Air Force's priority decisions.

The purpose of this chapter is to provide a theoretical framework that can be used to analyse the RAAF's organisational influences. This analysis is not an attempt to create a model that can predict behaviour, but rather to demonstrate that Air Force's priority decisions could be influenced by organisational behaviour and culture. Using the framework, Air Force's cultural biases and organisational behaviour can then be analysed in the following chapters to gain a better understanding of potential motivation.

3.1 An introduction to organisation theory

An organisation is a collection of interacting and interdependent individuals who work towards common goals and whose relationships are determined according to a certain structure. ¹³¹ Using this definition, it can be seen that Air Force is clearly an organisation. While that point may seem obvious, it is important to understand that as an organisation the RAAF's actions can be affected by the behaviour and culture of the groups and individuals contained within it. The Air Force is not a monolith, it is an organisational representation of the individuals within it.

The study of organisations has for some time been split between two disciplines that accentuate different aspects of organisational activity. Robbins and Barnwell explain that organisation

¹³¹ Andrew J DuBrin, *Foundations of organisational behaviour: an applied perspective*, Prentice-Hall Inc, Englewood Cliffs, NJ, 1984, p. 16

theory is the over-arching discipline that studies the structure and design of organisations.¹³² The purpose of organisation theory is to understand how effectiveness and productivity can be improved through the specific design of structures within an organisation. The second area of study is that of organisational behaviour, which is a sub-set of organisation theory, whose primary purpose is to focus on the actions of small groups and individuals within an organisation.

This division in organisation theory is a direct reflection of its historic development. Kummerow and Kirby explain that over time the theory has often 'oscillated between perspectives which emphasise the explicit, rational and more task-orientated properties of organisations, on the one hand, and perspectives that emphasise the implicit, non-rational and more person-orientated properties of organisations, on the other.' This continued oscillation is potentially due to the inability of either discipline to adequately describe the full range of actions observed within organisations.

While the two separate disciplines of organisation theory and organisational behaviour emphasise different aspects of organisational activity, they are clearly linked. This connection comes from an understanding that efficiency and productivity can be improved at both the design (organisation theory) and operating (organisational behaviour) stages of development. This requires the two elements of theory to be considered concurrently when determining an appropriate organisational solution. An organisation's design cannot be based purely on structural efficiency, it will also need to take into account what effect that design will have on organisational behaviour. Conversely, you cannot attempt to change organisational behaviour without understanding the effects that structure and design have.

While certain aspects of organisational design within the ADF will be discussed in this book, the intent is not to concentrate on those structural aspects. There will always be a potential link between organisational design and behaviour, but for the purpose of this work that interrelationship will be primarily viewed through the lens of organisational behaviour. The decision to view any structural issues through a behavioural lens is directly related to the purpose of the work. While there may be some organisational design aspects within the RAAF that affect issues such as resource allocation and information transfer, it is unlikely that these structural aspects would act in isolation to influence decisions on priority. To fully understand if organisational design issues can have any effect on priority decisions, they need to be considered through a behavioural lens to understand the extent of the influence and to appreciate the interdependency between the two factors.

Studies into organisational behaviour have been around since the early 1900s. Gray and Starke suggest 'it is not a discipline in the usual sense of the term, but rather it is an eclectic field of study that integrates the behavioural sciences (psychology, sociology, anthropology etc) into the study

¹³² Stephen P Robbins and Neil Barnwell, *Organisation theory in Australia*, Second Edition, Prentice Hall of Australia Pty Ltd, Sydney, 1994, p. 7

¹³³ Elizabeth Kummerow and Neil Kirby, *Organisational culture: concept, context, and measurement*, vol. 1, World Scientific Publishing Co Pte Ltd, Singapore, 2014, p. 26

of human behaviour within organisations.' DuBrin explains that organisational behaviour is 'a field of study that emerged to help unravel the complexities of organisations and the people in them.' Both authors paint a similar picture of an immature discipline that was created out of a desire to increase the efficiency of organisations by better understanding the behaviour that limited both potential and productivity.

While the main purpose of study into organisational behaviour was to increase the efficiency and productivity of corporate organisations, this does not discount its utility to non-corporate organisations such as the RAAF. Much of the theory associated with organisational behaviour concentrates on the complex relationships created between sub-groups and individuals, and how those exchanges affect the actions and decisions an organisation takes. Concepts such as power politics, conflict and trust are equally applicable to non-corporate identities because they are also people-based organisations facing the same complexity in relationships.

Emphasis on the people-based aspects of organisation theory continued in the early 1980s when academics started to identify a third discipline, which was the significance of corporate cultures for performance, growth and success. During this period there was a popularisation of the organisational culture concept as books that identified the characteristics of successful companies in the USA and Japan provided professional managers with potential solutions to increase the efficiency of their companies through cultural transformation. Though the popularisation of studies on organisational culture reached their peak in the 1980s and 1990s, Kummerow and Kirby emphasise that concern over the cultural phenomena in organisations has been present in the studies of organisational behaviour almost since its conception, with the first mention of the cultural aspects of organisations being made in 1911.

Allison and Zelikow define organisational culture as the 'behaviour of individuals conforming with norms and the organisation having a distinctive entity with its own identity and momentum.' The study of organisational culture tends to concentrate on three main aspects. The first is how an organisational culture is created, the second how an organisation sustains that culture, and the third, how that culture could potentially be transformed to the benefit of the organisation. Kotter and Heskett suggest that organisational cultures can have powerful consequences, especially

¹³⁴ Jerry L Gray and Frederick A Starke, *Organisational behaviour: concepts and applications*, Fourth Edition, Bell & Howell Information Company, Columbus, Ohio, 1988, p. 12

¹³⁵ Andrew J DuBrin, Foundations of organisational behaviour: an applied perspective, p. 4

¹³⁶ Mats Alvesson, *Understanding organisational culture*, Second Edition, SAGE Publications Inc, Los Angeles, CA, 2013, p. 1

¹³⁷ Elizabeth Kummerow and Neil Kirby, *Organisational culture: concept, context, and measurement*, p. 28

¹³⁸ Mats Alvesson, Understanding organisational culture, p. 1

¹³⁹ Elizabeth Kummerow and Neil Kirby, Organisational culture: concept, context, and measurement, p. 3

¹⁴⁰ Graham Allison and Philip Zelikow, *Essence of decision: explaining the Cuban missile crisis*, Second Edition, Addison Wesley Longman Inc, New York, NY, 1999, p. 145

when they are strong.¹⁴¹ This notion of the importance of strength in a culture is echoed by Gray and Starke who list it as one of three factors that determine the level of impact culture will have on an organisation.¹⁴² It is this notion of strength that makes the study of organisational culture so relevant to the armed services. As organisations that are steeped in both history and tradition, there is a continual sustainment of culture. This sustainment maintains the strength of the culture, which in turn makes the impacts of that culture on a Service even more profound.

The study of organisational culture should be seen as another natural evolution of organisation theory. The requirement to study organisational culture became necessary when the preceding theories were unable to adequately describe the differences in performance being experienced within organisations. In relation to this continued evolution, Kummerow and Kirby register a concern about the lack of suitable measures capable of adequately assessing the effects of culture on organisations. This inability to scientifically measure the potential effects is in stark contrast to the origins of organisation theory that predominately used scientific processes, such as time and motion studies, to measure the performance of organisations. This inability to measure the non-rational and more person-orientated properties of organisations is perhaps the biggest limitation on accurately portraying what effect culture has on an organisation, the result being that sometimes organisational culture becomes a 'convenient catch-all explanation for why things happen or do not happen in a particular way in a firm.' ¹⁴⁴

The evolution of organisation theory has demonstrated a historic pattern of being unable to fully explain the differences of performance between organisations. This inherent weakness is potentially due to organisation theory being unable to take into account the full complexity of the inter-relationship between its sub-components. Within an organisation the elements of structure, design, behaviour and culture all affect its potential actions and decisions. If you then add the variables of strategic context and political interference, the inability of organisation theory to adequately describe the specific actions of an organisation becomes even more apparent. To avoid the tendency of using aspects of organisation theory as an all-encompassing explanation, this work uses the theory of both organisational behaviour and organisational culture in a considered manner.

Alvesson expressed a similar concern and indicated that it was important to avoid an allembracing as well as too narrow use of organisational culture.¹⁴⁵ He goes on to suggest that, to avoid this trap, the theory should be considered as a 'source of insights into all areas of corporate

¹⁴¹ John P Kotter and James L Heskett, *Corporate culture and performance*, The Free Press, New York, NY, 1992, p. 8

¹⁴² Jerry L Gray and Frederick A Starke, Organisational behaviour: concepts and applications, p. 449

¹⁴³ Elizabeth Kummerow and Neil Kirby, *Organisational culture: concept, context, and measurement*, p. 29

¹⁴⁴ Robert P Vecchio, Greg Hearn and Greg Southey, *Organisational behaviour: life at work in Australia*, Harcourt Brace Jovanovich, Sydney, 1992, p. 575

¹⁴⁵ Mats Alvesson, Understanding organisational culture, p. 200

life'. Most importantly he suggests that it is 'not best seen as a causal force'. In line with Alvesson's recommendation, this work uses organisational behaviour and organisational culture as a method of illuminating the actions and decisions that Air Force has made in relation to prioritising jointness, but it stops short of suggesting that they are the only or the primary causal factors for those activities. Organisational behaviour and culture should be considered as factors that affect decisions Air Force makes, but not as the only reason those decisions are taken.

The remainder of the chapter moves on to discuss specific aspects of organisational behavioural and cultural theory. These aspects have been purposely selected to emphasise two main areas. The first area is how organisational behaviour affects the ability of sub-groups within an organisation to cooperate and integrate, the aim of which is to understand how organisational behaviour may affect the RAAF's relationship with the other Services at the strategic level. The second area of focus is the mechanisms that support the creation and sustainment of an organisational culture, with specific importance placed on how culture affects the ability of the organisation's individual members to determine priorities and value.

3.2 Organisational behaviour: the RAAF as a bureaucracy

Morgan suggests that one of the best places to start to understand the true nature of an organisation is to define where the 'power to rule' exists. ¹⁴⁷ He suggests that it is important to firstly understand whether an organisation is autocratic, bureaucratic, technocratic or democratic. The ability to accurately define the power of rule within the RAAF has a number of complicating factors. Firstly, the RAAF is not a stand-alone organisation. It belongs to a larger organisation that is the Department of Defence, so it is therefore important to understand the power to rule within both organisations. Secondly, internal to the RAAF there are some historic structural factors that make the power to rule less clear.

According to Max Weber, one of the original architects of bureaucratic management theory, there was little doubt that Defence (or Army as it was at the time) was a bureaucracy. His strength of resolve can be found in his statement that 'the military organisation represented for him the culmination of the dominant trend in Western history. The army (Defence) was the ultimate in bureaucratisation.' As a bureaucracy the power to rule with the Department of Defence exists within the written word, which provides the basis of a rational-legal type of authority, normally expressed as the 'rule of law.' DuBrin characterises this rule of law as the centralisation of authority.'

¹⁴⁶ Mats Alvesson, Understanding organisational culture, p. 201

¹⁴⁷ Gareth Morgan, *Images of organisation*, Updated Edition, SAGE Publications Inc, Los Angeles, CA, 2007, p. 151

¹⁴⁸ Robert D Miewald, 'Weberian bureaucracy and the military model', *Public Administration Review*, vol. 30, no. 2, March–April 1970, p. 130

¹⁴⁹ Gareth Morgan, Images of organisation, p. 153

¹⁵⁰ Andrew J DuBrin, Foundations of organisational behaviour: an applied perspective, p. 426

It is hardly surprising that the Department of Defence is considered a bureaucracy. It is after all merely another department of government, which are renowned for their bureaucratic tendencies. The only aspect of the Department of Defence that could bring any doubt on its bureaucratic nature is the legislated and undisputed authority of the Chief of Defence Force, which could be considered slightly autocratic in nature. This minor concern can be dismissed when it is understood that deference to authority is an accepted part of bureaucratic theory. This understanding is supported by Odiorne's definition of bureaucracy, which is 'a group of people working together; one of them holds authority, and the others occupy subordinate positions.' 152

As part of the larger bureaucratic Department of Defence, it would be difficult to consider the RAAF as anything other than a bureaucracy, but there is one organisational factor that could potentially bring that into doubt. Carl Builder argues that the 'the ownership of the air force is clearly in the hands of the pilots.' This ownership by one specialised skill set could suggest that the RAAF is a technocracy, which is an organisation where the power to rule is exercised through use of knowledge, expert power and the ability to solve relevant problems. In 'Technocratic organisation and control,' Beverly Burris provides a more detailed explanation of the characteristics of bureaucracies and technocracies, a summary of which is provided at Table 1.

Table 1: Bureaucracy/technocracy characteristics comparison

Bureaucracy	Technocracy
Hierarchical division of labour	Flattening of hierarchy; Polarisation into experts and non-experts
Organisational complexity	Technological complexity
Internal labour markets; Seniority as the basis for promotion	External labour markets; Credential barriers
Task specification at all levels	Flexible, task-force orientation at expert levels; Routinisation at non-expert levels (typically)
Rank authority	Growing emphasis on expertise as basis of authority

¹⁵¹ Autocracy: where an individual or small group holds the power to rule. Gareth Morgan, *Images of organisation*, p. 153

¹⁵² George S Odiorne, 'The military as a bureaucracy: the super activity trap', *Southern Review of Public Administration*, vol. 1, no. 1, June 1977, p. 75

¹⁵³ Carl H Builder, *The masks of war: American military styles in strategy and analysis*, John Hopkins University Press, Baltimore, MD, 1989, p. 26

¹⁵⁴ Gareth Morgan, Images of organisation, p. 153

¹⁵⁵ Beverly H Burris, 'Technocratic organisation and control,' *Organisation Studies*, vol. 10, issue 1, June 2016, p. 10

Unfortunately, Burris' description does not quite clarify the RAAF organisational status because Air Force appears to show the characteristics of both forms of 'power to rule'. When Burris' description of a bureaucracy is applied to the RAAF it appears to display most, if not all, of the required characteristics. As a military Service it fits the description of a hierarchical organisation that manages immense complexity by creating specific areas of specialisation. The RAAF also highly values specialisation within its workforce and takes that characteristic to extremes by the creation of specialist 'tribes'. The RAAF, like Navy and Army, is an organisation with clear rank authority that is worn externally on the uniform to emphasise its importance. The RAAF also predominately has an internal labour market that it creates through a large commitment to general and specialised training, the output of which is a vast number of specialists within all rank levels of the organisation.

Confusion over status is created because the organisational dominance of pilots suggests that it has technocratic leanings. Historically, the majority of the RAAF's most senior leaders have been from the pilot specialisation. While that perception of pilot dominance might be true of the three most senior positions within the RAAF, ¹⁵⁶ it is not the case for the majority of Air Force's senior leadership team. In 2017, the RAAF had 55 officers at star rank that made up its senior leadership team; of that number, only 20 were of the pilot specialisation, which was only 36 per cent of the team. ¹⁵⁷ The remainder were from other specialisations such as air combat officers, engineers and logisticians. This wider spread better fits the bureaucratic model of task specialisation at all rank levels.

There is also some question whether technocracy is actually the correct characterisation of the RAAF's most senior leadership. As Chapter 4 establishes, the Air Force's most senior leaders tend to come from one particular pilot sub-specialisation, the air combat pilot. The dominance of air combat pilots within the organisation would suggest that the leadership has more autocratic tendencies. An autocracy is where an 'individual or small group holds the power within an organisation by the control of critical resources, ownership rights, tradition, charisma, and other claims to personal privilege.' The real question becomes whether the RAAF's technocratic, or possibly autocratic, senior leadership stops the overall organisation being bureaucratic in nature.

As previously described the RAAF shows all the organisational hallmarks of being organised in a bureaucratic manner: the hierarchical nature of its rank structure, the strict separation of distinct areas of sub-specialisation, a high degree of complexity, and the need to manage that complexity by investing heavily in the specialised training of its workforce. So why doesn't the technocratic or autocratic nature of its most senior leaders reduce those bureaucratic tendencies?

¹⁵⁶ The most senior positions being Chief of Air Force, Deputy Chief of Air Force and Air Commander Australia.

¹⁵⁷ Figures sourced from Group Captain Susan Stothart, Director Senior Officer Management, Defence People Group, 3 May 2017.

¹⁵⁸ Gareth Morgan, Images of organisation, p. 153

The answer to that question can be found by understanding that the RAAF is an area of subspecialisation within a wider governmental and Defence bureaucracy. As part of this wider bureaucracy the majority of the rules and procedures that the RAAF follows are created outside of the organisation. The preponderance of financial, personnel and acquisition policy is set by the Australian Government. Within Defence those policies are then further refined by the Non-Service Groups such as the Chief Financial Officer and Defence Support Group. Functions such as strategic policy and operational commitments are also owned by other areas in Defence. Organisational layers of specialisation result in the RAAF having to comply with strategic 'rules' created by other organisations, and this wider context makes the majority of the RAAF's dealings bureaucratic in nature.

Outwardly the RAAF must function within the required bureaucratic 'norms' and procedures because the wider Defence bureaucracy does not recognise the technical dominance of pilots. While they may be exalted within the RAAF, outside of the organisation pilots are just one of a myriad of sub-specialisations within Defence. Overall, the RAAF has to act as a bureaucracy because it is an area of sub-specialisation within a wider Defence and governmental bureaucratic construct. As a bureaucracy, albeit with a technocratic or autocratic leadership, the RAAF can be expected to show some very recognisable and consistent behaviour.

3.3 Bureaucratic tendencies

Bureaucracies will tend to emphasise the importance of their own capabilities because organisational survival is a priority. While this may seem overly Machiavellian in nature, Halperin and Clapp agree that the 'first instinct for an organisation is self-preservation.' This organisational need for self-preservation is quite understandable, and most likely attributable to the needs and desires of the organisation's executive. Potentially, there are very few people that would want to be in charge of an organisation if they did not believe in the importance of its role, if they did not feel some duty to protect it, and if holding an executive position within it did not satisfy their individual need for self-importance. This drive for organisational self-preservation can then lead to organisations favouring 'policies and strategies that its members believe will make the organisations, as they define it, more important.' Sorenson supports this understanding by suggesting that 'bureaucracies foster types of behaviour that reinforce the goals of their members, who hold a common interest in the sustainability and growth of their particular organisation.'

The Services, as bureaucracies, also display a tendency to prioritise those aspects of their military capability that, they believe, are important to the survival and growth of their organisations. Smith put it more bluntly when he wrote, 'the iron law of bureaucracies is to grow and control their own

¹⁵⁹ Morton H Halperin and Priscilla A Clapp, *Bureaucratic politics and foreign policy*, Second Edition, Brookings Institution Press, Washington, DC, 2006, p. 319

¹⁶⁰ Ibid., p. 38

¹⁶¹ David S Sorenson, *The process and politics of Defence acquisition*, Praeger Security International, Westport, CT, 2009, p. 92

fiefdoms, and the military services – being bureaucracies – follow that law. ¹⁶² This propensity to emphasise individual service capabilities could have the unfortunate side effect of creating an independent focus within the Services. While it is unlikely that any of the Services is actually truly concerned about self-preservation, this bureaucratic tendency to emphasise the important roles of their individual organisations does occur as each of them competes to maintain the relevance of their military capabilities.

Horwood, in discussing the inter-service rivalry experienced in the United States after the Vietnam War, suggests that the Services' independent focus 'was motivated by an absolute certainty that they should have a pre-eminent role in any future conflict.' This need for pre-eminence is simply another way of describing the requirement for a bureaucratic organisation to ensure that its role is considered important. To achieve this, the Services will tend to champion the individual military capability they own. This creates an organisational focus towards Service capabilities, and that comes at the expense of a corresponding de-emphasis of joint capabilities.

Bureaucratic organisations, and in particular government entities, provide the managing executive more freedom to pursue the priorities that they believe are important. In *Armed servants: agency, oversight, and civil-military relations*, Peter Feaver, using economic agency theory, provides an excellent explanation of how military Services are capable of deciding how much they comply with government direction. Feaver suggests that the government is in a principal—agent relationship with the Services, and because the government lacks an intimate knowledge of the Services' internal workings, this allows each of the Services to determine whether it works (comply with government direction) or shirks (fail to comply). The ability for bureaucracies to choose is echoed by Allison and Zelikow, who viewed 'organisations and bureaucrats as more autonomous, with great scope to define their critical tasks in a way that serves preferences that arise out of the organisation itself and its managers. The services are important. In *Armed servants: agency, oversight, and civil—military relations,* provides an excellent explanation of how military services are capable of deciding how much they comply with government direction. Feaver suggests that the government is in a principal—agent relationship with the Services, and because the government is in a principal—agent relationship with the Services, and because the government is in a principal—agent relationship with the Services are capable of deciding how much they comply with government direction. Feaver suggests that the government is in a principal—agent relationship with the Services are capable of deciding how much they comply with government direction. Feaver suggests that the government is in a principal—agent relationship with the Services are capable of deciding how much they comply with government is in a principal—agent relationship with the services are capable of deciding how much they comply with government is in a principal—agent relationship with the services ar

Providing joint capability with the appropriate priority is the stated policy of the Australian Government. The 2016 Defence White Paper stated that 'more emphasis will be placed on the joint force, bringing together different capabilities so the ADF can apply more force more rapidly and more effectively when required.' It is therefore interesting to understand that the bureaucratic nature of the RAAF, and the other Services, allows them to determine how much priority they place on jointness, with an understanding that the Services, as bureaucratic organisations, already have an inclination to emphasise those independent capabilities that they perceive increase their

¹⁶² Hedrick Smith, *The power game: how Washington works*, Random House Inc, New York, NY, 1988, p. 194

¹⁶³ Ian Horwood, *Inter-service rivalry and airpower in the Vietnam War*, Combat Studies Institute Press, Fort Leavenworth, KS, 2006, p. 189

¹⁶⁴ Peter D Feaver, *Armed servants: agency, oversight, and civil–military relations*, Harvard University Press, Cambridge, MA, 2005

¹⁶⁵ Graham Allison and Philip Zelikow, Essence of decision: explaining the Cuban missile crisis, p. 153

¹⁶⁶ Australian Department of Defence, 2016 Defence White Paper, p. 18

importance. Given the ability to choose how much they comply with government policy, there is an increased possibility that 'through bureaucratic manoeuvring [they] fail to carry out policies that aren't consistent with their preferences and routines.' ¹⁶⁷

The specific features of bureaucratic organisations provide the RAAF, and the other Services, with not only the opportunity to focus on Service capabilities, but also an organisational priority to do so. If the Services are going to compete for pre-eminence, organisational behaviour theory suggests that there will be an increase in the amount of internal politics observed and the ever-present possibility of conflict.

3.4 Political pursuit of power

Organisations are political entities and their actions and decisions will normally be based on political imperatives and the pursuit of power. In *Images of organisation*, Gareth Morgan describes how 'organisations are effectively political entities that are created through a diversity of interests'. Among the Services that diversity of interests is quite easily observed. While each of the Services maintains the same requirement to support overall Defence objectives, the manner in which they do so is diverse because it is dependent upon the domain within which they specialise. Conventional understanding within the ADF is that Navy owns the maritime domain, Army owns the land domain, and the RAAF owns the air domain. That said, each operates in all three domains and that in itself is a potential cause of friction but, for the purpose of understanding organisational behaviour, it is enough to recognise that Service domain specialisation creates a diversity of interests.

With a diversity of interests, choices need to be made on which ones to support when the resources available become limited. Halperin and Clapp, in *Bureaucratic politics and foreign policy*, explain that most organisations have a mission to perform, and that these missions normally require the maintenance of expensive capabilities. In order to be able to afford these capabilities 'all organisations must seek influence'. This need to influence the decision-maker allocating resources leads to politicking within organisations, a situation that is summarised in Pfeffer's definition of organisational politics which is 'those activities taken within organisations to acquire, develop, and use power and other resources to obtain one's preferred outcomes in a situation in which there is uncertainty or dissensus about choices. Gray and Starke supported this understanding when they wrote 'political behaviour is widespread in organisations when they have limited resources and the organisation must decide which goals they will pursue, especially when there is little objective evidence about which goals should be pursued.

¹⁶⁷ Robert Jervis, Perception and misperception in international politics, p. 27

¹⁶⁸ Gareth Morgan, Images of organisation, p. 156

¹⁶⁹ Morton H Halperin and Priscilla A Clapp, Bureaucratic politics and foreign policy, p. 25

¹⁷⁰ Jeffrey Pfeffer, Power in organisations, Pitman Publications, Boston, MA, 1981, p. 7

¹⁷¹ Jerry L Gray and Frederick A Starke, Organisational behaviour: concepts and applications, p. 504

The need to partake in organisational politics to influence the decision-maker who is required to choose between diverse interests is a subject that will be examined in Chapter 5. The major discussion point that will be returned to is that this requirement for the Services to influence potential decision-makers can lead to an increase in the necessity for them to champion their independent military capabilities. While political behaviour in organisations is considered a natural state of affairs, one of its unfortunate side effects is that it can lead to organisational conflict.

3.5 Conflict as an extension of politics

Determining where the boundary exists between political activity and organisational conflict is a complex activity. As discussed, organisational politics is, by its very nature, a competition over influence, resources and power. The obvious question this creates is: When does this competition become conflict?

Morgan suggests that conflict comes from the same source that creates political entities, 'that being some perceived or real divergence of interests.' In a similar manner to the way that Clausewitz saw war as a 'continuation of political intercourse,' organisational conflict should not be seen as something separate, but merely a perpetuation of organisational politics. Competition within politics becomes conflict when a person or a group behaves in a manner that is 'purposely designed to inhibit the attainment of goals by another person or group.' This intent of one group to block the efforts of the other groups is picked up by DuBrin, who also neatly explains the difference between conflict and competition:

In conflict, one side sees an opportunity to interfere with the other's opportunity to acquire resources or perform activities. In competition both sides try to win, but neither side actively interferes with the other.

Though the definitions of conflict provided imply that a group may actively interfere with another group, it is important to understand that this interference can be created through passive means as well. ¹⁷⁷ In organisations that rely heavily on bureaucratic process, the ability to slow down another group's progress by not doing something is equally as effective. Not doing something has a lot of advantages. It allows organisations to blame a lack of resources or competing priorities for inaction, and it provides the organisation with a level of deniability because it is difficult to prove that incompetence is malicious.

¹⁷² Gareth Morgan, Images of organisation, p. 163

¹⁷³ Carl von Clausewitz, *On war*, Michael Howard and Peter Paret (eds), Princeton University Press, Princeton, NJ, 1989, p. 87

¹⁷⁴ Jerry L Gray and Frederick A Starke, Organisational behaviour: concepts and applications, p. 533

¹⁷⁵ Stephen P Robbins and Neil Barnwell, Organisation theory in Australia, p. 351

¹⁷⁶ Andrew J DuBrin, Foundations of organisational behaviour: an applied perspective, p. 348

¹⁷⁷ Jerry L Gray and Frederick A Starke, Organisational behaviour: concepts and applications, p. 533

If conflict is considered to be a progression from the competition created by organisational politics, it should be unsurprising that many academic writers consider the primary sources of conflict to be the same as those that create politics, that being the competition for resources and the acquisition of power.¹⁷⁸ Conflict of this nature is a common theme within Defence and is often referred to as inter-service rivalry. Horwood believes 'inter-service rivalry seems to be a constant fact of military life in peace time. Indeed, armed services may sometimes even measure their relative success in terms of accumulation of resources and authority at the expense of their sister Services.'¹⁷⁹ Inter-service rivalry is a key organisational behaviour that will be discussed in Chapter 5. Conflict can also be created by the existence of sub-groups that have a dissimilarity of interests or values.

3.6 Sub-groups as sources of conflict

One of the major characteristics of bureaucratic organisations is that they create sub-groups of specialisation to manage complexity. Within Defence, this creation of sub-groups is institutionalised. It commences with each of the Services specialising in its respective operational domain, and a number of groups that specialise by function or the nature of their service provision; for example, Strategic Policy Group, Estate and Infrastructure Group and Defence People Group. Like many other large organisations, that sub-division based on role or task then continues through the multiple layers of command and authority. Defence also specialises down to the individual member within the organisation. Within all three Services, each sailor, soldier and aviator, regardless of rank, is assigned to a named specialisation. Within the officer ranks, Navy refers to these specialisations as branches, Army calls them corps, and the RAAF uses the term categories.

Within Defence, this sub-grouping is often referred to as 'tribalism'. Beaumont describes the Department of Defence as 'a confederation of bureaucratic tribes'. With a more scientific flavour Rosabeth Kanter suggest that tribalism 'reflects strong ethnic or cultural identities that separate members of one group from another, making them loyal to people like them and suspicious of outsiders, which undermines efforts to forge common cause across groups. While Kanter's comments are not specifically about Defence, they do neatly summarise the two primary considerations for tribalism within the organisation. Firstly, that it is generated by the creation of

¹⁷⁸ Jerry L Gray and Frederick A Starke, Organisational behaviour: concepts and applications, p. 541

¹⁷⁹ Ian Horwood, Inter-service rivalry and airpower in the Vietnam War, p. 2

¹⁸⁰ Beverly H Burris, 'Technocratic organisation and control', Organisation Studies, p. 10

¹⁸¹ Roger A Beaumont, *Joint military operations: a short history*, Greenwood Press, Westport, CT, 1993, p. 189

¹⁸² Rosabeth M Kanter, 'Is tribalism inevitable?', *Huffington Post*, 25 September 2013, accessed at http://www.huffingtonpost.com/rosabeth-moss-kanter/is-tribalism-inevitable_b_3661436.html on 21 March 2017

sub-groups that have distinct and separate cultures, and secondly, that it can create a reduction in cross-group cooperation.

DuBrin supports Kanter's position on the importance of culture in creating cooperation, but adds that 'considerable conflict in organisations comes about simply because the values and interests of various sub-groups differ.' This potential for differences in interests to become a source of friction is also identified by Gray and Starke who suggest:

the mere existence of groups that are doing different functions creates the potential for conflict. As groups become familiar with how they perform they may turn inwards and become uninterested in how their work fits in with other groups or the importance of another group's work.¹⁸⁴

As an organisation with such a wide scope of responsibility, Defence appears to have a neverending list of disparate functions, so understanding that these could be a source of conflict is extremely important. Perhaps just as significant, and potentially more compelling when you consider the increasing interdependence between the Services, is Robbins and Barnwell's belief that 'organisational conflict can stem from mutual task dependence or one-way task dependence'. Predictably, they believe that as sub-groups become more reliant on each other for the completion of their primary functions, failure to deliver, or the perception of incomplete service provision, has the potential to create significant sub-group conflict.

3.7 Consequence of conflict

Organisational conflict is not necessarily always considered a bad thing. During his tenure as Secretary for Defence, the formidable Sir Arthur Tange 'used the principle of creative tension to ensure that the services vied with each other to prove the joint worth of a single-service project.' While it can have some positive aspects, if the conflict perpetuates between sub-groups and becomes institutionalised, it can have a significant effect on cooperation, integration and trust. Air Marshal David Evans, a previous CAS, portrayed these concerns over conflict inside Defence when he wrote, 'there will always be a degree of competition between the three services that go to make up the ADF. It is the same in most nations – honest and good-natured competition can promote esprit de corps and productivity, but if it is allowed to degenerate to intense, acrimonious rivalry it becomes destructive.' ¹⁸⁷

¹⁸³ Andrew J DuBrin, Foundations of organisational behaviour: an applied perspective, p. 350

¹⁸⁴ Jerry L Gray and Frederick A Starke, Organisational behaviour: concepts and applications, p. 543

¹⁸⁵ Stephen P Robbins and Neil Barnwell, Organisation theory in Australia, p. 356

¹⁸⁶ Richard T Menhinick, Sea control and maritime power projection for Australia, Ocean Publications, Wollongong, NSW, 2005, p. 91

¹⁸⁷ David S Evans, *Down to earth: the autobiography of Air Marshal David Evans AC DSO AFC*, Air Power Development Centre, Canberra, ACT, 2011, p. 112

DuBrin provides an excellent summary (Table 2) of the effects that competition, or conflict, can have on the cooperation between sub-groups, noting that the consequences can be internal and external to a sub-group. ¹⁸⁸

Table 2: The effect of competition on sub-group relationships

Within a competing group the following effects are observed:	Between each competing group the following effects are observed:	
 The group becomes more cohesive and members become more loyal. 	 Each group begins to perceive the opposing group as the enemy. 	
2. As conflict increases the leadership climate becomes more autocratic.	2. Group undergoes a distortion in perception. Sees mostly strengths in itself and weaknesses	
3. A tendency to become more tightly structured.	in the other group. 3. Groups become more hostile towards each	
4. The group demands that members put up a solid front, people are expected to become more loyal and conforming.	other, interaction and communication simultaneously decreases. Under these conditions, negative stereotypes are maintained and it becomes more difficult to correct perceptual distortion.	

Morton Deutsch identifies a similar trend and suggests that when healthy competition moves to destructive conflict the following effects can be observed:¹⁸⁹

- 1. Communication between the conflicting parties (sub-groups) is unreliable and impoverished. The available communication channels and opportunities are not utilised or they are used in an attempt to mislead or intimidate the other. Little confidence is placed in the information that is obtained directly from the other.
- 2. It stimulates the view that the solution of the conflict can only be of the type that is imposed on one side by the other by superior force, deception or cleverness.
- 3. It leads to a suspicious, hostile attitude that increases the sensitivity to differences and threats, while minimising the awareness of similarities.

While there may be some positive organisational outcomes from competition, the tendency is for conflict to create destructive organisational behaviour because it produces ineffective communication, leads to an internal focus and reduces the level of trust between sub-groups. This propensity should be a concern for Defence because the efficiency of jointness within the ADF is a product of the Services' enthusiasm to cooperate and integrate. If conflict can potentially remove that motivation to cooperate, then it should be seen as the antithesis of jointness.

¹⁸⁸ Andrew J DuBrin, Foundations of organisational behaviour: an applied perspective, pp. 357-358

¹⁸⁹ Morton Deutsch, 'Conflicts: productive and destructive', *Journal of Social Issues*, vol. 25, issue 1, January 1969, pp. 12–13

The concept that conflict can reduce two organisations' eagerness to cooperate is neither astonishing nor revolutionary. The negative effect that conflict has on most relationships is easily observed in nearly every aspect of life. In relation to Air Force's connection with joint, the expectation should be that the effects of conflict remain consistent. The priority the RAAF places on joint is directly related to its willingness to cooperate with the other Services. Any conflict with those Services is therefore likely to reduce that willingness, and, in turn, could lead to a potential reduction in the organisational priority placed on joint.

There are two primary causes of organisational conflict: the political pursuit of power and resources; and the differences in interest and values within sub-groups. The acts associated with the pursuit of power will more than likely be intentional, but it is the unintentional nature of the differences in interests and values that begs a greater understanding of organisational culture.

3.8 Organisational culture

The inability to accurately define what organisational culture 'is' makes it complex to determine what effect it has on an organisation's ability to decide. As discussed earlier in this chapter, the study of organisational culture is a relatively new discipline. Though a great deal of effort has been undertaken in this area of study, it has not resulted in a coherent theory of organisational culture. A review of current literature does suggest there is some coalescence of understanding, but at this stage there does not appear to be a uniformly accepted paradigm for organisational culture. ¹⁹⁰

A great deal of this variability is probably a result of there being two distinct ways to view organisational culture. Kummerow and Kirby explain that significant differences in approach are created by whether organisational culture is considered to be a 'variable' or a 'metaphor'. They explain that the chosen approach towards organisational culture is based on the scholar's belief of whether culture is something an organisation *has* (variable approach), or something the organisation *is* (metaphor approach).

Those that considered culture as something that an organisation *has* (variable approach) do not concentrate on creating and understanding the sources of culture because, to them, culture was merely one of the variables that created an influence on organisational performance. They did not perceive a need to understand how culture was created because it was seen as a fixed input to performance.

Those scholars who considered culture as something an organisation is (metaphor approach) placed a greater emphasis on gaining a deeper-level understanding of organisational life. For them, studying organisational culture was about creating a greater understanding of how culture

¹⁹⁰ Thomas S Kuhn, *The structure of scientific revolutions*, Third Edition, The University of Chicago Press, Chicago, IL, 1996, p. 13

¹⁹¹ Elizabeth Kummerow and Neil Kirby, Organisational culture: concept, context, and measurement, p. 47

¹⁹² Ibid., pp. 49-53

is created and sustained, and how differences in its strength and nature could change how much it influenced an organisation. According to this perspective organisational culture is not seen as just another piece of the puzzle, it is the puzzle. 193

While the variable and metaphoric approaches are the two main methods of considering organisational culture, Alvesson explains that culture can be too 'broad in itself and too similar to organisation to be considered as a metaphor.' Trice and Beyer agree and suggest that culture is not merely a metaphor and we should consider it as something that actually exists which is 'naturally occurring, real systems, of thought, feeling and behaviour that inevitably result from sustained human interaction.' Alvesson prefers the explanation of culture as something 'real' because it then allows the metaphoric level to be used to better describe the influence culture can have on an organisation. While he agrees that culture could remain a first-level metaphor, he believes that the explanatory power of metaphors is better used to describe the influence of culture, rather than its overall nature. An example of these explanatory metaphors is provided at Table 3.

Table 3: Examples of explanatory metaphors for culture¹⁹⁶

Metaphor	Description of metaphor		
Exchange regulator	Functioning as a control mechanism in which the informal contract and the long-term rewards are regulated, aided by a common value and reference system and a corporate memory.		
Compass	In which culture gives a sense of direction and guidelines for priorities.		
Social glue	Where common ideas, symbols and values of sources of identification with the group/organisation counteract fragmentation.		
Sacred cow	Where basic assumptions and values point to a core of the organisation which people are strongly committed to.		
Affect regulator	Where culture provides guidelines and scripts for emotions and affections and how they should be expressed.		
Mental prison	Referring to un- or non-conscious aspects of culture, culture as taken-for-granted ideas leading to blind spots and ideas and meanings creating a fixed world within which people adjust, unable to critically explore and transcend existing social constrictions.		

¹⁹³ Mats Alvesson, Understanding organisational culture, p. 21

¹⁹⁴ Ibid., p. 24

¹⁹⁵ HM Trice, and JM Beyer, *The cultures of work organisations*, Prentice Hall, Englewood Cliffs, NJ, 1993, p. 21

¹⁹⁶ Mats Alvesson, Understanding organisational culture, p. 31

This book tends towards viewing culture as something 'real', instead of viewing it as simply an input (variable approach) or as a metaphor to describe certain aspects of organisational behaviour. This 'real' approach, which considers culture as a series of naturally occurring systems, allows for further exploration of how it is created and sustained, but it also allows the use of explanatory metaphors to better describe the influential nature of culture. Several of the explanatory metaphors used by Alvesson will be re-visited in Chapter 4 when the RAAF's culture is explored in detail.

This multitude of views used to describe the nature of culture continues to demonstrate the contested nature of organisation theory, and further explains the lack of an accepted paradigm. This lack of coherency is also displayed in the inability to agree on the major theoretical elements that constitute organisational culture. To gain a clearer understanding of what major elements organisational culture consists of, and the potential effects they could create, it will be necessary to synthesise some of the key aspects of the current literature.

3.9 The definition of organisational culture

Perhaps the best place to start this synthesis is to have a look at the key features of the definition of organisational culture. Andrew Brown explains that the lack of an agreed definition is most likely because 'even before the terms "culture" and "organisation" were used in combination, the term "culture" has been defined in literally dozens of different ways.' ¹⁹⁷ To illustrate this diversity, Table 4 contains a number of definitions of organisational culture sourced from academic literature.

¹⁹⁷ Andrew Brown, Organisational culture, Pitman Publishing, London, 1995, p.6

Table 4: Definitions of organisational culture

Author/s	Definition of organisational culture		
Graham Allison and Philip Zelikow	Organisational culture emerges to shape the behaviour of individuals within the organisation in ways that conform with informal as well as formal norms. The result becomes a distinctive entity with its own identity and momentum. 198		
Elizabeth Kummerow and Neil Kirby	A pattern of shared basic assumptions learned by a group as it solved its problems of external adaption and internal integration, which has worked well enough to be considered valid, and therefore to be taught to new members as the correct way to perceive, think and feel in relation to those problems. ¹⁹⁹		
Gareth Morgan	Patterns of belief or shared meaning, fragmented or integrated, and supported by various operating norms and rituals can exert a decisive influence on the overall ability of the organisation to deal with the challenges it faces. ²⁰⁰		
Jerry L Gray and Frederick A Starke	The shared philosophies, ideologies, values, assumptions, beliefs, expectations, attitudes and norms that knit an organisation together. ²⁰¹		
Stephen P Robbins and Neil Barnwell A system of shared meaning. In every organisation there are patterns of beliefs, symbols, rituals, myths and practices that have evolved over time. These in turn create common understandings among members as to we organisation is and how its members should behave. ²⁰²			

The first noticeable pattern within the definitions is that most of the authors indicate that organisational culture requires something to be shared, normally referred to as beliefs, values or attitudes. Brown provides some clarity by describing that 'values are what people think ought to be done', that 'beliefs are what people think is and is not true', and that 'an attitude may be thought of as a learned predisposition to respond in a consistently favourable or unfavourable manner to a particular thing or idea'. It is generally agreed that organisational culture could be responsible for members of an organisation thinking and feeling in a similar way about certain subjects.

The second key theme from the definitions is that organisational culture provides the members with some form of operating norms and behavioural expectations. It is almost universal in the definitions that organisational culture can in some way affect the actions and behaviours of the members within it. Robbins and Barnwell suggest that one of the results of a strong culture is

¹⁹⁸ Graham Allison and Philip Zelikow, Essence of decision: explaining the Cuban missile crisis, p. 145

¹⁹⁹ Elizabeth Kummerow and Neil Kirby, Organisational culture: concept, context, and measurement, p. 64

²⁰⁰ Gareth Morgan, Images of organisation, p. 125

²⁰¹ Jerry L Gray and Frederick A Starke, Organisational behaviour: concepts and applications, p. 447

²⁰² Stephen P Robbins and Neil Barnwell, Organisation theory in Australia, p. 375

²⁰³ Andrew Brown, Organisational culture, pp. 22-23

that it creates behavioural consistency.²⁰⁴ They go on to suggest that a strong culture removes the need for a formalised approach to regulate behaviour because culture creates predictability, orderliness and consistency. The effect of culture on a member's actions is more likely to be stronger if compliance with organisational behavioural expectations also satisfies some of the more basic individual needs, such as motivation, personal value and reward.

The final theme shared by some of the definitions is the concept of organisational identity. Alvesson describes organisational identity 'as something quite robust: it implies there is a core or an essence representing how an organisation coherently defines itself.'205 Organisational identity is, unsurprisingly, also a contested concept with debates over whether 'identity' is best conceived as a property of organisations or a set of beliefs.²⁰⁶ The main area of disagreement is whether an organisation, which is made up of a group of individuals, can in fact have its own identity, a concern that is partially satisfied if organisational identity is expressed as a set of beliefs, rather than as a form of organisational personality. Perhaps Albert and Whetten provide the most useful definition of organisational identity by describing it as 'what members believe to be the central, enduring and distinctive characteristics of their organisation.'²⁰⁷

A review of the definitions of organisational culture demonstrates that most of the key themes remain contested. Based on the generally agreed properties, it can be asserted that culture is capable of creating shared beliefs, values and attitudes within an organisation, that in combination they are capable of creating a unique organisational identity, and that together or individually they are capable of influencing the behaviour of individuals within the organisation. With reference to the RAAF's relationship with joint, the ability of culture to influence behaviour suggests that it could have a reasonable effect on the decisions it makes. The amount of influence will depend on what element of culture the decision is related to.

3.10 The elements of organisational culture

A review of academic literature on the elements of organisational culture paints a similar picture to that experienced while reviewing the definition. There is no agreed list of elements, but within the literature there are detectable patterns that can be used to create a more integrated view. There are three groups into which most of the elements of culture can be divided: the elements that *create* culture, the elements that *sustain* culture, and the elements *produced* by culture. Table 5 provides examples of each of these three groups that are derived from the elements listed by a number of academic writers.

²⁰⁴ Stephen P Robbins and Neil Barnwell, Organisation theory in Australia, p. 378

²⁰⁵ Mats Alvesson, Understanding organisational culture, p. 38

²⁰⁶ Kate Kenny, Andrea Whittle and Hugh Willmott, Understanding identity and organisations, SAGE Publications, Los Angeles, CA, 2011, p. 130

²⁰⁷ Stuart Albert and David A Whetten, 'Organisational identity', *Research in Organisational Behaviour*, vol. 7, 1985, pp. 263–295

Table 5: Elements of organisational culture

	Brown, Organisational culture ²⁰⁸	Gray and Starke, Organisational behaviour ²⁰⁹	Sulkowski, 'Elements of organisational culture' ²¹⁰
Elements that <i>create</i> culture	 Heroes History 	1. Myths	 Organisational heroes
Elements that sustain culture	 3. Language is the form of jokes, metaphors, stories, myths and legends 4. Behaviour patterns in the form of rites, rituals, ceremonies and celebrations 5. Symbols and symbolic action 	 Rites and ceremonies Symbols Socialisation process Language 	 Ways to communicate, stories, narratives, myths and metaphors Rituals Customs Symbols
Elements produced by culture	6. Norms of behaviour7. Ethical codes8. Basic assumptions9. Artefacts	6. Norms of behaviour7. Taboos	 Cultural values Social and organisational norms Basic assumptions Taboos Cultural patterns Cultural artefacts

Most scholars generally agree that there are two main *sources* of culture within an organisation. The first are those elements associated with the organisation's history, including such things as myths and heroes. Brown explains that being part of an organisation's history isn't enough; the element needs to have been associated with some form of organisational development.²¹¹

Development of organisational culture occurs through two historic learning mechanisms, which are trauma and positive reinforcement. Traumatic events in history can either have a positive or

²⁰⁸ Andrew Brown, Organisational culture, p. 8

²⁰⁹ Jerry L Gray and Frederick A Starke, Organisational behaviour: concepts and applications, p. 447

²¹⁰ Lukasz Sulkowski, 'Elements of organisational culture: theoretical and methodological problems', *Management*, vol. 16, no. 2, 2012, p. 64

²¹¹ Andrew Brown, Organisational culture, p. 53

negative connotation. The positive connotations tend to be focused on how organisations acted to cope with traumatic events. Within an organisation, positive reinforcement creates learning when a link is established between a behaviour exhibited and a positive outcome achieved or a reward provided. Negative connotations tend to focus on those lessons learnt from traumatic events that damaged the organisation in some way.

The second main source of culture within an organisation is the influence of a dominant leader or the vision of the founder. Robbins and Barnwell wrote 'the founding fathers or mothers of an organisation have a major impact on establishing early culture. They have a vision or mission as to what the organisation should be' and 'they are unconstrained by previous ways of doing things or ideologies.'²¹² In both corporate and government organisations, the vision or mission created by the founder can have a profound impact on the organisation's understanding of their purpose for being and their primary focus.

The elements that sustain culture can also be divided into two main categories, whether they actively or passively sustain culture. The active elements are those that rely on the organisation to make decisions that sustain the current culture, and they include selection, promotion and reward systems. The passive elements, which may have required a decision in the past, but now occur based on historic trend, include things such as customs, rituals, ceremonies, celebrations, socialisation and language.²¹³

Sustaining elements are the linking agent between the sources and products of culture. Organisations will more than likely choose customs, ceremonies and celebrations from those sources of culture that maintain the desired historic focus. As part of their deliberations during promotion and reward processes, organisations will most likely consider whether the individuals under review display the appropriate values, beliefs and attitudes (the products of the culture).

Socialisation provides an organisation the opportunity to highlight both the sources and products of culture at the same time, through formal processes such as induction training or through informal processes such as interpersonal interaction. Socialisation allows organisations the ability to transmit historic context, cultural beliefs and assumptions to newcomers within the group.²¹⁴

In *Organisational culture and leadership*, Edgar Schein describes culture as a multi-layered phenomenon and explains that the products of culture can be split into three levels.²¹⁵ The first level is that of 'artefacts', which are the visible organisational structures and processes that include things such as physical environment, technology and language. The second level is shared

²¹² Stephen P Robbins and Neil Barnwell, Organisation theory in Australia, p. 380

²¹³ List created from Andrew Brown, *Organisational culture*, p. 41, Stephen P Robbins, and Neil Barnwell, *Organisation theory in Australia*, p. 380, and Jerry L Gray and Frederick A Starke, *Organisational behaviour: concepts and applications*, p. 447

²¹⁴ Elizabeth Kummerow and Neil Kirby, *Organisational culture: concept, context, and measurement*, pp. 66–67

²¹⁵ Edgar H Schein, *Organisational culture and leadership*, Third Edition, Jossey-Bass, San Francisco, CA, 2004, p. 26

beliefs and values that are a form of organisational learning that has occurred through historic observation of cause and effect. The organisation learns that certain solutions or actions create the desired outcome, and this learning becomes entrenched within the organisation. The third level is that of 'basic underlying assumptions' which are shared values and beliefs that 'have become so taken for granted that one finds little variation within a social unit. This degree of consensus results from repeated success in implementing certain beliefs and values.' He continues: 'if a basic assumption comes to be strongly held in a group, members will find behaviour based on any other premise inconceivable.' ²¹⁶

Brown agrees with Schein on the existence of basic assumptions and states they 'refer to the implicit, deeply rooted assumptions people share, and which guide their perceptions, feelings and emotions about things. They differ from beliefs because they are unconscious, they aren't comfortable or debatable, and they are immensely complex.'217

The strength of belief associated with basic assumptions can sometimes create defensive behaviour. Schein explains that the human mind needs cognitive stability, and that 'any challenge or questioning of a basic assumption will release anxiety and defensiveness.'²¹⁸ Schein suggests that rather than tolerate this anxiety a human will tend to perceive events in a way that maintains the basic assumption, even if that means 'distorting, denying, projecting, or in other ways falsifying to ourselves what may be going on around us.'²¹⁹ Basic assumptions will not only influence the decisions being made, but if information being received conflicts with them, it could also create a distortion in the perception of that information.

While it is important to understand the manner in which culture is created and sustained, the real effects of culture within an organisation are felt through the products it creates. Values, beliefs and attitudes are elements that can affect the decisions an organisation makes. In relation to the consequences of basic assumptions, their influence could be so entrenched that they cause an instinctive defence if challenged.

3.11 The impact of organisational culture

Culture is one of the multitudes of factors that influence the behaviour and decisions within an organisation, but the amount of influence it creates is subject to a significant amount of variability. Gray and Starke suggest that the impact culture has on an organisation is determined by three factors: direction, strength and pervasiveness.²²⁰

²¹⁶ Edgar H Schein, Organisational culture and leadership, p. 31

²¹⁷ Andrew Brown, Organisational culture, pp. 21-23

²¹⁸ Edgar H Schein, Organisational culture and leadership, p. 32

²¹⁹ Ibid., p. 32

²²⁰ Jerry L Gray and Frederick A Starke, Organisational behaviour: concepts and applications, p. 449

Direction refers to whether the culture is on a positive or negative path. A positive vector means that the culture enables the organisation's goals, with a negative vector indicating that the culture inhibits attainment of those gaols. Strength within culture is the amount of influence it has on the members within an organisation, and is largely affected by the length of time a culture has existed and the turnover of members. Pervasiveness relates to the degree to which the culture characterises the whole organisation. If an organisation has distinct sub-groups that do not share common cultural characteristics, the culture is not considered particularly pervasive. The impact of culture can therefore be seen as a spectrum based on the interplay of those three variables, a diagrammatic explanation of which can be found at Table 6.

Table 6: Spectrum of organisational culture's impact

	Culture has a LOW impact	Culture has a MEDIUM impact	Culture has a HIGH impact
Direction	Negative vector	Indeterminate vector	Positive vector
Strength	High staff turnover Short organisational history	Neither high nor low staff turnover Medium length organisational history	Low staff turnover Long organisational history
Pervasiveness	Multiple sub-cultures present	One or two sub-cultures present	No sub-cultures present

By applying Table 6 to the RAAF it could be expected that its organisational culture would have a high impact. While certain aspects of RAAF culture may inhibit the achievement of certain tasks, in terms of direction, Chapter 2 demonstrated that, in the macro sense, Air Force's culture has enabled it to achieve the majority of its required goals, placing it on a relatively positive vector. In regard to strength, the RAAF has a long organisational history, having been inaugurated in 1921. It also enjoys a low staff turnover because historically it has one of the best retention rates of all the Services.²²¹ Based on Gray and Starke's model, the only characteristic of the RAAF's culture that would reduce its impact is the number of specialist sub-cultures contained within the organisation.

Robbins and Barnwell's description of a *dominant culture* provides a good explanation of why the presence of sub-cultures may not necessarily lead to a reduction in a culture's impact. They suggest 'a dominant culture expresses the core values that are shared by the majority of the organisation's

²²¹ Australian Department of Defence, *Review of the Australian Defence Force retention and recruitment program*, August 2010, p. 10

members. When we talk about an organisation's culture we are referring to its dominant culture. It's the macro view of culture that gives an organisation its distinct personality.'222

Nick Jans suggests that each of the Services has a dominant individual culture which is created by a 'strong sense of identity and clear and measurable functions.'²²³ Understanding that there can be one dominant culture that unifies specialist sub-cultures means that the presence inside the RAAF may not necessarily lead to a reduction in cultural impact.

Ultimately, it is an organisation's ability to choose that determines how much effect culture will have on the capabilities and missions it pursues.²²⁴ In organisations that have the ability to choose what they consider priorities, the ability of culture to influence those decisions creates the potential for significant impact. If there is little opportunity for choice, then the ability of culture to impact those decisions is reduced.

3.12 Summary

The purpose of this short review of organisation theory has been to provide a theoretical framework to analyse the RAAF's relationship with jointness in Chapters 4 and 5. This specific aim has meant that this chapter has purposely focused on those aspects of organisation theory that could influence the priority decisions being made by the RAAF.

One clear message from this examination is that organisation theory, which includes both organisational behaviour and culture, remains heavily contested and unable to reach an agreed paradigm. The complex interactions between organisational structure, sub-groups, individuals and culture make it unlikely that a unifying theory will be available in the near future. This lack of consensus means that using organisation theory to explain a specific organisational behaviour should be avoided or done so with caution. In line with this cautionary approach, this work avoids treating organisational theory as a causal factor, and instead will see it as one of a number of factors that influence the decisions organisations make. In relation to the theory analysed, there are a number of agreed elements that will provide a useful theoretical context during the review of the RAAF's organisational culture and behaviour in Chapters 4 and 5.

The Department of Defence and the RAAF are bureaucracies. This fact creates certain organisational tendencies, notably the need to emphasise the importance of their own capabilities to ensure organisational survival, and the ability to choose how much they comply with stated government policy. The requirement for the Services to influence decision-makers to ensure the pre-eminence of their military capabilities could lead to organisational politics in the pursuit of

²²² Jerry L Gray and Frederick A Starke, Organisational behaviour: concepts and applications, p. 376

²²³ Nick Jans, The real C-cubed: culture, careers and climate and how they affect capability, Canberra Papers on Strategy and Defence, no. 143, Strategic and Defence Studies Centre, Australian National University, Canberra, ACT, 2002, p. 127

²²⁴ Morton H Halperin and Priscilla A Clapp, Bureaucratic politics and foreign policy, p. 27

power and resources. As an extension of this, competition between the Services can be expected. When this competition progresses to a point where the Services start interfering with each other's pursuit of power and resources, conflict will most likely ensue, the consequences of which could be a reduction in communication, cooperation and trust.

The quest for power and resources is not the only potential source of conflict within Defence. Other potential causes include mutual task dependence between the Services and the distinct differences in both their values and interests. Organisational culture is one of the potential causes of those differences. The primary sources of culture within a Service are the vision and/or mission created by the founding leadership and the organisational learning that has occurred during its history. Service culture is then sustained through active measures like promotion, and through passive measures such as socialisation and ceremonies. The main products of culture are artefacts, values, beliefs and basic underlying assumptions. Each of these products then has the potential to influence the actions and decisions of the Services. The potency of this influence depends on the culture's vector, strength and pervasiveness.

It is this ability of organisational culture to influence the decisions and actions of the RAAF that is the focus of the next chapter. If the effectiveness of joint within the ADF is dependent on the priority choices made by the Services, then it is essential to understand the ability of organisational culture to affect those decisions. The RAAF, like a number of other nations' air forces, has had a turbulent organisational history that involved significant periods of under-resourcing and a continual requirement to justify the value of air power. If these are the sources of the RAAF's culture, what effect has that culture had on basic assumptions, values and beliefs?

4

When culture creates a 'blue' focus

Trying to understand Air Force attitudes, it is important to remember the Army's open hostility in those early years, just as it is important to remember that the Australian Army has never had to confront threats to its survival, particularly those originating from supposed 'comrades in arms'.

Alan Stephens²²⁵

The contemporary ADF operates as a joint force,²²⁶ though the potency of that joint force can be significantly affected by the priority that each individual Service places on supporting joint capabilities. If a particular Service is integral to the provision of a joint capability and chooses not to prioritise support, then that capability will either cease to exist or reduce in operational effectiveness. Chapter 2 demonstrated that, on occasion, the RAAF has chosen not to prioritise support to joint-enabling capabilities. Chapter 3 then identified organisational culture as one of the potential factors influencing those priority decisions. In this chapter a more detailed examination of the RAAF's culture will be completed to determine how it could influence the decisions being made.

The purpose of this chapter is to identify aspects of the RAAF's culture that could create a focus on core Air Force capabilities, which in turn could lead to a commensurate reduction in the priority given to joint-enabling capabilities. It is not the intent of this chapter to demonstrate the existence of an anti-joint culture within the RAAF. In relation to this examination, it is important to remember that culture should not be seen as a primary causal factor. There are a multitude of reasons why the RAAF makes the decisions it does, including internal and external politics, strategic circumstances and financial concerns. Culture influences a decision-maker, it is not the reason they make the decision. Finally, it is essential to highlight that this chapter only covers those aspects of RAAF culture that relate to the creation of a focus on core Air Force capabilities. This limited scope, if taken out of perspective, could potentially create an unbalanced view of RAAF culture. It is therefore important to keep the limited context in mind to avoid the creation of an overly negative view, which could potentially be incorrect and undeserved.

²²⁵ Alan Stephens, 'The odd couple: Army/Air Force relations', in Jeffrey Grey and Peter Dennis (eds), From past to future: the Australian experience of land/air operations – proceedings of the 1995 Australian Army History Conference, p. 144

²²⁶ Lee Cordner, 'The future of maritime forces in an integrated Australian Defence Force', *Security Challenges*, vol. 12, no. 1, 2016, p. 101

4.1 Creating a basic assumption

Organisation theory suggests that there can be two primary sources for culture within the RAAF: the vision of its founders and the organisation's history. Unfortunately, there is a level of complexity associated with both sources that makes their boundaries difficult to define.

The RAAF did not have a discrete founding vision. It had a shared vision created by a 'bond of aviators' that included the theorists and practitioners from within the air forces of a number of key nations. During its formative stages the RAAF, or as it was called then, the Australian Flying Corps, was sharing air power theory with aviators from the British Royal Flying Corps²²⁷ and the American Aviation Section of the Signal Corps.²²⁸ The Australian, British and American air arms were all going through their formative stages at a similar time, either during or just prior to World War I. Throughout this developmental stage each was looking for a coherent theory that would define the military use of air power.

This continual search for a coherent theory, or vision for air power, created a long history of coordination and information transfer between the various air arms. One of the most striking examples of the continued cross-pollination of ideas can be seen after World War II, when the RAAF endorsed the United States' General 'Hap' Arnold's article, 'Our air power and the future,' as its official air power doctrine. When the RAAF was officially formed its leaders found it difficult to create a unique vision for air power because there was a very small number of aviators and their relative isolation made it difficult for them to learn from their overseas counterparts in independent air forces. 230

The founding vision of the RAAF is therefore actually a composite of the theories that were created by a number of nation's air arms as each of them went through the formative stages of organisational growth. In a similar manner this 'bond of aviators' also supported much of the RAAF's organisational learning on the evolution of air power theory. While a great deal of the RAAF's learning from history has occurred independently within Australia, a portion of the insight that has been used to refine its view on the purpose of air power has been developed in a shared environment with other nations. The process of continually re-evaluating the purpose of air power, based on historical experience, is important to the RAAF's culture because it drives an understanding of what the organisation exists to do. Air forces are designed to deliver air power. If the understanding of what air power is and does changes, it can fundamentally alter what the RAAF believes is its purpose for being.

²²⁷ Alfred Gollin, *The impact of air power on the British people and their government 1909–1914*, Stanford University Press, Stanford, CA, 1989, p. 184

²²⁸ Robert Earl McClendon, *The question of autonomy for the United States air arm, 1907–1945*, Air University, Maxwell Air Force Base, AL, 1954, p. 22

²²⁹ Alan Stephens, Going solo: the Royal Australian Air Force, 1946–1971, p. 36

²³⁰ Alan Stephens, *The Australian centenary history of Defence, volume 2, The Royal Australian Air Force,* p. 41

Evolutions in air power theory can be shared between nations in a number of ways, but within Australia it has historically occurred in two forms. It has occurred through direct involvement, where the RAAF has been physically deployed to a conflict, and it also transpired when the RAAF accepted portions of another country's air power doctrine as its own. Though small in size, the RAAF has been involved in many of the world's major conflicts since World War I,²³¹ though, again due to its size, the RAAF has nearly always been deployed in a supporting role to a major ally. Through coordination with the other nations participating, it has been able to learn the major air power lessons from the conflict.

The RAAF did not have its own theory of air power until the first edition of *The air power manual* was published in August 1990.²³² Prior to that the organisation used theories and strategies from other nations.²³³ Air Marshal Ray Funnell, a previous Chief of Air Staff, described Australian aviators as 'intellectual beachcombers, who just waited for something to drift in from overseas, and if we liked the look of it, we picked it up and put it on our mantelpiece. We just were not thinking for ourselves.²³⁴ The fourth version of the RAAF's *Air power manual* made it very clear that the RAAF does 'not derive [its] doctrine in isolation' and that 'the opportunity to learn from the experiences of [its] Allies enhances the basis from which [its] doctrine is written.²³⁵

This 'bond of aviators' explains why some of the RAAF's founding visions have been created outside of the organisation and why some of the historical lessons it has learnt appear to be on the periphery of its own organisational experience.

4.2 The motivation of the founders

The initial air arms of the United Kingdom, Australia and the United States were all created either during or prior to the commencement of World War I. The Royal Flying Corps was established in April 1912,²³⁶ the Aviation Section of Signal Corps in July 1914,²³⁷ and the Australian Flying Corps in April 1915.²³⁸ Their establishment was not due to the creation of a unifying vision on

²³¹ The RAAF had personnel and aircraft deployed in support of World War II, the Korean War, Vietnam War, first Gulf War, second Gulf War, and the conflicts in Afghanistan, Iraq and Syria.

²³² Alan Stephens, Power plus attitude: ideas, strategy and doctrine in the Royal Australian Air Force 1921–1991, p. 192

²³³ Ibid., p. 184

²³⁴ Air Marshal Ray Funnell AC (Retd), Interview, 17 May 2017

²³⁵ Royal Australian Air Force, Australian Air Publication (AAP) 1000, *Fundamentals of Australian aerospace power*, Aerospace Centre, Fairbairn, ACT, 2002, p. vii

²³⁶ Alfred Gollin, The impact of air power on the British people and their government 1909–1914, p. 184

²³⁷ Robert Earl McClendon, The question of autonomy for the United States air arm, 1907-1945, p. 22

²³⁸ Group Captain Mark Lax, 'A hint of things to come: leadership in the Australian Flying Corps', in Barry Sutherland (ed), *Command and leadership in war and peace 1914–1975: proceedings of the 1999 RAAF History Conference held in Canberra on 29 October 1999*, Air Power Studies Centre, Fairbairn, ACT, 2000, p. 27

the value of air power, but from a more practicable understanding that aircraft could be used to support military operations. During World War I it became apparent that military aviation had the potential to do more than just support the other armed services. The recognition of this potential meant that towards the end of World War I, and in the subsequent interwar period, a considerable movement commenced within the 'bond of aviators' to have the importance of military air power recognised. There are two main reasons why the movement to acknowledge the importance of air power gained momentum.

The first was an increasing belief in the revolutionary potential of air power. The revolutionaries were the new 'true believers' of air power. For them, military aviation was to become a new way to win wars because it had the potential to make all other forms of conflict obsolete. The revolutionaries believed in air power's ability to change the characteristics of modern warfare, and thought it could be a solution to the carnage they saw on the battlefields of Western Europe. Eliot Cohen described a more modern interpretation of this revolutionary aspect when he coined the term the 'seductiveness of air power', because as a method of applying military force 'it appears to offer gratification without commitment'.²³⁹ Air power appeared to offer the opportunity to revolutionise warfare and to reduce the human cost of war.

The second reason was directly related to organisational behaviour. In line with the political behaviour described within organisation theory, aviators may have been trying to increase the organisational importance of air power's mission. The most likely goal of elevating the prominence of air power would be to create the political influence necessary to achieve independent status for their air arms. In *Bombing to win*, Robert Pape identifies that the theory of strategic bombing persisted because of the institutional interests of air forces, in particular the maintenance of institutional independence and autonomy.²⁴⁰

While the two purposes for elevating the importance of air power appear to have different motivations, they should not be considered as mutually exclusive. To suggest that the aviators pursuing organisational independence knowingly over-emphasised the revolutionary aspects of air power would be judging them too harshly. It may have aided the aviators' purpose to increase the importance of air power, but that does not mean they did not believe in its efficacy. One reason why their motivation is so often brought into question could be related to the grand nature of the predictions made by early air power theorists on how important air forces would become in future wars.

²³⁹ Eliot A Cohen, 'The mystique of US air power', *Foreign Affairs*, January/February 1994, viewed April 2017, http://www.foreignaffairs.com/articles/49442/eliot-a-cohen/the-mystique-of-us-air-power

²⁴⁰ Robert A Pape, *Bombing to win: air power and coercion in war*, Cornell University Press, Ithaca, NY, 1996, p. 327

4.3 The founding vision and theories

There were four major air power theorists in the interwar period, and together they created the 'bond of aviators' early view of air power, which in turn could be considered as the primary source of the RAAF's founding vision. These theorists were Giulio Douhet, William Mitchell, William Sherman and John Slessor.²⁴¹ As is the case during the development of most paradigms, the early history of air power theory saw some differences in the emphasis placed on certain aspects of air power. Douhet and Mitchell accentuated the revolutionary aspects of air power, while Sherman and Slessor were more moderate in their views.

Douhet firmly believed that future wars would be won by an air arm's direct attack on the enemy's capital city in order to create a moral and material collapse. Douhet recommended the 'progressive decrease of land and sea forces, accompanied by a corresponding increase of aerial forces until they are strong enough to conquer command of the air.' Mitchell suggested that 'the influence of air power on the ability of one nation to impress its will on another in armed contest will be decisive,' and that 'the development of air power has forced a complete reorganisation of all the arrangements for national defence.' Mitchell even went so far as to suggest that air power could completely replace the Navy in providing the United States' coastal defence. Using modern military vernacular it could be said that Douhet and Mitchell were not focused on the joint aspects of air power, instead they emphasised the independent and war-winning characteristics of the new capability.

Slessor and Sherman were more joint in their focus and highlighted the ability of air power to support the Navy and Army. Slessor stated that the 'object of the air force contingent in the field is to assist and cooperate with the army in the defeat of the enemy's army, and as such air forces as may be co-operating with it.' Slessor contended that wars will be won by defeating the enemy's land forces and that the role of the air force is to enable that defeat to occur more swiftly. In *Air Warfare*, Sherman identified the importance of observation and attack aviation, whose primary purpose is to support the land battle. He also described his aversion to attacking enemy towns and cities. ²⁴⁵

Douhet's theory on air power, *The command of the air*, was first published in 1921. Mitchell's theory on air power, *Winged defence*, was first published in 1925. Sherman's theory on air power, *Air warfare*, was first published in 1926. Slessor's theory on air power, *Air power and armies*, was first published in 1936. Despite Sir Hugh Trenchard being a great air power practitioner, I have not included him in the list of air power theorists because he never published a theoretical study of air power.

²⁴² Giulio Douhet, *The command of the air*, translated by Dino Ferrari, Air Force History and Museums Program, Washington, DC, 1942, new imprint 1988, p. 30

²⁴³ William 'Billy' Mitchell, *Winged defence: the development and possibilities of modern air power – economic and military*, The University of Alabama Press, Tuscaloosa, AL, 1925, new imprint 2009, p. 214

²⁴⁴ John C Slessor, Air power and armies, The University of Alabama Press, Tuscaloosa, AL, 2009, p. 1

²⁴⁵ William C Sherman, *Air warfare*, reprint edition, Air University Press, Maxwell Air Force Base, AL, 2002, pp. 190–194

Though more slanted towards a joint supporting role, even Slessor and Sherman hint towards a more independent role for air power. Slessor suggested that the 'ultimate reduction of the enemy nation may (and very likely will) be undertaken, not by the traditional methods of land invasion, or by the continued assaults upon their armies in the field, but by air measures: Sherman stated that the 'ultimate success will be achieved with a greater degree of certainty by a vigorous offensive against the enemy's aircraft and vital centres: This belief that air forces of the future would be able to undertake independent action that created some form of strategic effect is one of the main points of consensus between all four theorists. While there is mild disagreement between the theorists on the level of decisiveness it can achieve, there is an overall agreement that one of the main strengths of air power is that it can have a strategic effect.

All the theorists also agreed that targeting vital centres (production, supply and communications) is the best method of achieving a decisive result in war. Mitchell stated that air power should target areas of manufacture, communication, primary production, fuel and 'places where people live and carry on their daily lives.' Douhet suggested 'aerial offensives will be directed against such targets as peacetime industrial and commercial establishments; important buildings, private and public; transportation arteries and centres; and certain designated areas of civilian population as well.' Sherman believed that the aircraft has become the 'supreme air arm of destruction' and that it should be used to target cities, supply systems, industrial centres and communications. Slessor demonstrated a more refined view when he wrote 'the object of attack on production is the dislocation and restriction of output from the war industry, not primarily the material destruction of plant and stocks. In World War I all the theorists would have seen the importance of production in an industrialised war. It was therefore logical for them to see targeting the means of war as one of the best methods to achieve a decisive military victory.

Another aspect that gained the consensus of all theorists was the significant effect bombing would have on the morale of the civilian population. As an example, Mitchell stressed the effects that bombing could have on morale by stating that not only should the enemy be 'rendered incapable of supplying armed forces but the people's desire to renew the combat at a later date must be discouraged.'252 The theorists' emphasis on the effect of bombing on morale was most likely a direct result of the apparent panic caused by air raids against cities during World War I. While those raids did not have a large effect on the outcome of the war, it was not unreasonable for

²⁴⁶ John C Slessor, Air power and armies, p. 4

²⁴⁷ William C Sherman, Air warfare, p. 29

²⁴⁸ William 'Billy' Mitchell, Winged defence: the development and possibilities of modern air power – economic and military, p. 126

²⁴⁹ Giulio Douhet, The command of the air, p. 20

²⁵⁰ William C Sherman, Air warfare, p. 179

²⁵¹ John C Slessor, Air power and armies, p. 66

²⁵² William 'Billy' Mitchell, Winged defence: the development and possibilities of modern air power – economic and military, p. 127

theorists to extrapolate the potential effects of bombing, especially if that bombing was more concentrated and undertaken by more powerful aircraft with more destructive weapons.

While there was a level of disagreement between the theorists over whether the primary role of air power was to act independently or to support the Navy and Army, they were able to settle on a number of key aspects. These were that air forces could act independently to create meaningful strategic effect, and that the best way to achieve war-winning results would be to directly target the enemy's means of waging war and the morale of their people. Importantly for the RAAF's culture, these three key aspects of air power became the cornerstones of the organisation's founding vision.

4.4 A history of trauma and positive reinforcement

While a founding vision is considered a basis of culture, an equally important source is an organisation's history. In Chapter 3 it became apparent that for history to be a source of organisational culture, it needed to be more than just an event on the historical timeline. To be a source of culture it needed to create some form of organisational learning, normally through either trauma or positive reinforcement. While the founding vision of the RAAF may have started the organisation on an independent path, a summary of its history will demonstrate it was subsequently reinforced through organisational learning. A review of the RAF's early history is extremely relevant because, in the initial stages of the RAAF's development, the two air forces were so intrinsically linked that their cultures could not be significantly separated.

Australia achieved a modicum of independence from Britain through its Federation in 1901, which was only 20 years prior to the formation of the RAAF, so it should not be particularly surprising that the RAF had such a significant impact on the early years of the RAAF. More importantly, history was not the only thing that was shared, with inter-service rivalry also being imported from British counterparts. Of particular relevance is the fact that 'the continual challenges and questioning of the RAF's right to existence as an independent service' would be reflected in Australia because of the 'imperial orientation of the high command of Australia's Army and Navy.'253 It is therefore important to understand what relevant organisational learning occurred within the RAF because those lessons would have been transmitted directly to the RAAF, albeit in slow time.

4.5 Lessons learnt from the Royal Air Force

The political pressure within Britain to create some form of military aviation capability was derived from a growing awareness that Count Ferdinand Adolf Heinrich August Graf von Zeppelin's advances in rigid dirigible airships made German attack from the air possible, and that

²⁵³ Chris Coulthard-Clark, *The third brother: the Royal Australian Air Force 1921–1939*, Allen & Unwin Australia Pty Ltd, North Sydney, NSW, 1991, pp. 59–60

this development could end the geographic isolation of Great Britain.²⁵⁴ The potential threat from German airships forced authorities in the Navy and Army to turn their attention to the subject of air defence. In the latter half of 1909, air enthusiasts tried to raise the importance of military aviation through newspaper articles, public speeches and direct political influence.

In the face of this increasing threat and associated political pressure, the Ministry of Defence announced the creation of the Standing Sub-Committee of the Committee of Imperial Defence, to carry out a wide-ranging enquiry into the subject of aerial navigation. In particular, the committee was charged with determining whether a separate corps of aviators should be created to undertake military and naval aviation. The Standing Sub-Committee acted quickly, and its recommendations were published in a White Paper on 11 April 1912 that detailed the creation of the Royal Flying Corps (RFC). There is no real evidence that the RFC was created because of a belief in an independent role for air power. It was most likely formed out of normal bureaucratic process where an area of specialisation is created to deal with a perceived increase in complexity and importance.

The creation of the RFC was also supposed to reduce the inter-service rivalry between the Royal Navy and British Army by unifying all of Britain's aviation efforts under one Corps; but the Admiralty ensured that this goal was never achieved. The main issue was that the RFC was under the control of the British Army, which meant that the Admiralty had no direct control of the Naval Wing within the Corps, which resulted in a loss of resources and political influence. As organisation theory predicts, this organisational political dispute led to conflict between the Navy and Army over the provision of airship facilities and the continual delay in the delivery of Naval Wing aircraft from the Royal Aircraft Factory. This conflict ultimately resulted in the Naval Wing being removed from the RFC in 1914. A distinct aviation branch was created within the Royal Navy, designated the Royal Naval Air Service (RNAS).

In what can only be considered an ironic twist of fate, the inter-service rivalry between the Royal Navy and British Army is considered one of the major contributing factors in the formation of the RAF. The apparent inability of the Navy and Army to cooperate on aviation matters meant that the requirements for Britain's air defence were mostly ignored. This failure came to light in World War I when the Germans conducted successful daylight aeroplane (bomber) attacks on Britain in 1917. The fallout from the lack of adequate air defence from the RFC and RNAS was the conduct of an investigation into the higher direction of the air services by Lieutenant General Jan Smuts.²⁵⁷ The Chief of the Imperial General Staff expressed his doubts that any progress would be made

²⁵⁴ Alfred Gollin, The impact of air power on the British people and their government 1909–1914, p. 35

²⁵⁵ Ibid., p. 184

²⁵⁶ Royal Air Force, Air Publication 3003, *A brief history of the Royal Air Force*, Her Majesty's Stationery Office, Colgate, Norwich, 2004, p. 7

²⁵⁷ Philip Joubert de la Ferte, *The third Service: the story behind the Royal Air Force*, Jarrold & Sons Ltd, Norwich, 1955, p. 44

unless a new organisation was created. In effect, he felt that before long it would be necessary, in spite of the many difficulties he foresaw, to form a separate air force.²⁵⁸

The Smuts report was submitted to the Cabinet on 17 August 1917 and detailed the unsatisfactory situation of British military aviation. Smuts considered the existing system of the RFC and RNAS to be wasteful and inefficient because they maintained separate training, supply, maintenance and production organisations. This resulted in unnecessary competition for already scarce resources. Smuts recommended the creation of an Air Ministry, the unification of the RFC and RNAS into a single air service, and the removal of that service's subordination to the Navy and Army. The Air Force Bill was passed through Parliament during November 1917, and on 1 April 1918 the Royal Air Force came into existence. This formative decision taught British aviators that one of the acceptable rationales for creating and then maintaining an independent air force is that it is more efficient, in terms of resources, to have one air force providing air power for all three armed services, because it avoids the unnecessary duplication of functions.

In post-war Britain the RAF found itself in a struggle for organisational survival. At the end of the war there was no shortage of voices to question the continued existence of the independent air force. The Royal Navy and Army, from whose air arms the RAF had been created, were most anxious to see it demobilised, disbanded and its resources redistributed between them. In addition, frequent financial crises forced the government to examine closely whether the country's defence budget could afford the costs of a third service. In Chapter 3 it was identified that during political struggles for power and resources organisations will tend to emphasise their independent capabilities with a view to increasing their relative importance and ensuring organisational survival. This tendency to emphasise independent Air Force capabilities was displayed by the RAF during its struggles to maintain independence.

In Rhetoric and reality in air warfare, Tami Davis Biddle believes:

[in] the aftermath of the war, the young RAF faced an immediate fight for its institutional life. Though it survived, it had to articulate an ongoing *raison d'etre* as a separate service. This requirement had the effect of elevating the role of strategic bombing above other tasks, and compelling the RAF's leadership to continue protecting its wartime bombing record.²⁶¹

²⁵⁸ John Sweetman, 'Crucial months for survival: the Royal Air Force, 1918–19', *Journal of Contemporary History*, vol. 19, no. 3, July 1984, pp. 529–547

²⁵⁹ Scot Robertson, The development of RAF strategic bombing doctrine, 1919–1939, Praeger Publishers, Westport, CT, 1995, p. 17

²⁶⁰ Royal Air Force, Air Publication 3003, A brief history of the Royal Air Force, pp. 49–50

²⁶¹ Tami Davis Biddle, *Rhetoric and reality in air warfare: the evolution of British and American ideas about strategic bombing, 1914–1945*, Princeton University, Princeton, NJ, 2002, p. 69

Scot Robertson explains that there was little in the RAF's wartime record to give it the right to peacetime independence, and arguing for its independence forced it to move away from practical experience and postulate future capabilities.²⁶²

Air Chief Marshal Sir Hugh Trenchard, the commander of the so-called strategic bombing campaign against Germany in World War I, had an extremely pessimistic view of its efficacy at the end of the war.²⁶³ This appeared to drastically change when he became the Chief of Air Staff.²⁶⁴ Coulthard-Clark believes that this reversal was directly related to organisational politics:

Trenchard's legacy was not especially theoretical. His advocacy of strategic bombing as the primary role of an independent air force seems not to have stemmed from a deeply held and reasoned conviction, or even intuitive faith. What appears to have changed his mind about the efficacy of bombing as a war-winning means was the struggle throughout the 1920s to maintain the RAF's existence as a separate force, and the opportunistic need to find a rationale that countered the case for dismemberment." ²⁶⁵

The traumatic history of the RAF in the interwar years created a number of key organisational lessons for the world's first independent air force. In relation to the creation of an independent focus within the organisation, there were three main lessons. Firstly, the need for an independent air force is a contested concept. The invention of the aeroplane and its use in a military environment does not necessarily equate to a need for an independent force to operate it. Secondly, to maintain independence an air force's role cannot simply be to support the Navy and Army. For the RAF this need to be able to do something more than 'joint' translated into a focus on strategic bombing and air control. Lastly, the RAF learnt that another successful argument for maintaining their independence was based on efficiency, because a 'separate air service would prevent expensive duplication by concentrating the government's aviation activities under central control.' The RAAF was exposed to these ideas through the 'bond of aviators', just when it was experiencing an equally harrowing period of its own history, and learning many of the same lessons.

4.6 Lessons learnt from the RAAF's early history

In a manner that echoed similar occurrences in Britain, the need for military aviation in Australia was crystallised by a foreign military threat. Alan Stephens explains that concerns over the military capability and intentions of Japan, combined with a fear that the British preoccupation

²⁶² Scot Robertson, The development of RAF strategic bombing doctrine, 1919–1939, p. 27

²⁶³ Chris Coulthard-Clark, The third brother: the Royal Australian Air Force 1921-1939, p. 59

²⁶⁴ Tami Davis Biddle, Rhetoric and reality in air warfare: the evolution of British and American ideas about strategic bombing, 1914–1945, p. 94

²⁶⁵ Chris Clark, 'First masters of air power: Douhet, Trenchard and Mitchell', in Keith Brent (ed), Masters of air power, Air Power Development Centre, Canberra, ACT, 2010, p. 8

²⁶⁶ James P Tate, *The Army and its Air Corps: Army policy toward aviation, 1919–1941*, Air University Press, Maxwell Air Force Base, AL, 1998, p. 12

with Germany could result in the imperial protector being unable to defend Australia, led the then Minister for Defence, Senator George Pearce, to pursue an increase in indigenous military capability. As part of this military build-up, in 'January 1911 Defence Minister Pearce announced his intention to form an air service.' The creation of military aviation in Australia was not based on a particular theory of air power; much like its imperial counterparts, the need for a military air service was based on the belief that the aircraft could potentially enhance and support military operations.

In April 1912, when Britain created the RFC, the Australian Army was already recruiting 'competent mechanics and aviators' for a Central Flying School (CFS) of its own. ²⁶⁸ In early 1914, flying operations commenced at Point Cook, and in April 1915 the Australian Flying Corps (AFC) was established. ²⁶⁹ When Britain entered World War I in August 1914, the Australian Government responded by providing further air support. The AFC first saw operational service in 1915 when it responded to a request from the Imperial Indian Government to provide aerial assistance during the planned campaign in Mesopotamia. By 1916, the AFC had expanded to three front-line squadrons on the Western Front. ²⁷⁰

Coulthard-Clark contends that the birth of the Royal Australian Air Force in the years immediately after World War I was not accomplished amid unanimity; and nor was it a necessary or even appropriate step. Instead, it was a compromise solution arrived at after three years of continual and often futile debate.²⁷¹ With a striking resemblance to the creation of the RAF, the birth of the RAAF was seen as a solution to the inter-service rivalry and bickering between the RAN and Australian Army. The importance of military aviation had become self-evident during World War I, and in 1918 both the Navy and Army submitted proposals for an increase in capabilities. The funding did not exist to create an aviation capability for both services, so a compromise would need to be reached.

With an understanding that neither the Navy nor Army was likely to be objective in their deliberations on the issue, Defence Minister Pearce named the civilian head of the Defence Board of Business Administration, George Swinburne, as the chair of a committee to inquire into the future of an air service within Australia.²⁷² The committee voted, but not unanimously, that the whole air service should be under one administration and authority, a clear indication that a single service meeting the needs of both the Navy and Army represented the only immediate

²⁶⁷ Alan Stephens, *The Australian centenary history of Defence, volume 2, The Royal Australian Air Force*, pp. 2–3

²⁶⁸ Chris Coulthard-Clark, The third brother: the Royal Australian Air Force 1921-1939, p. xv

²⁶⁹ Group Captain Mark Lax, 'A hint of things to come: leadership in the Australian Flying Corps,' in Barry Sutherland (ed), *Command and leadership in war and peace 1914–1975*, p. 27

²⁷⁰ Alan Stephens, *The Australian centenary history of Defence, volume 2, The Royal Australian Air Force,* p. 9

²⁷¹ Chris Coulthard-Clark, The third brother: the Royal Australian Air Force 1921–1939, p. 1

²⁷² Ibid., p. 27

and economical way forward.²⁷³ The primary motivation for the committee was 'the desire to save money by avoiding duplication'.²⁷⁴ The decision to create an independent Australian air service was not based on the belief that air power had a convincing independent role; in fact the committee was 'unimpressed by the theories of strategic air attack' and made it very clear that the new independent air service would 'exist solely to support sea and land forces'.²⁷⁵ On the basis of this decision the Australian Air Force was inaugurated on 31 March 1921.

The inauguration of the Air Force did not end the dispute over its existence. Perhaps its greatest achievement in the first 18 years was simply to survive as an independent service. During the entire interwar period, there were recurring attempts to deny the RAAF the status of separate and equal membership among the Services. In fact, periodically, attempts were made to dismember it. 277

On 4 June 1926, the Chief of Naval Staff submitted a proposal to the Minister for Defence that stated 'there is no justification for a separate Air Force and its additional overhead expenses, and the correct objective should be the establishment, as soon as practicable, of two separate and distinct Naval and Military Air Arms.' Perhaps the most vehement attack during this time came in 1929, when a new Labor government was elected and conducted a review of the entire Defence Department. With every aspect of the Defence budget under scrutiny, the RAAF was an easy target for the other Services to deflect potential cuts in funding. The Navy and Army made a proposal, based on the alleged financial and military efficiencies, to split the RAAF between themselves.²⁷⁹

The RAAF was not silent, defending its independent status using familiar arguments. The Chief of Air Staff, Air Commodore (later Air Marshal Sir) Richard Williams, stressed the independent capabilities of the RAAF to get the Labor Party's support based on 'the belief that, unlike land and sea power, air power had the potential to protect Australia without imperial assistance and might therefore facilitate a more independent defence posture.'280 The independent capabilities of the RAAF were supported by aviators in the press who stated that 'fighting planes and sea planes supplied with gas bombs would be more effective in repelling an invading force than warships, which have a more limited sphere of action.'281 In another article, an airman claimed it 'was an

²⁷³ Chris Coulthard-Clark, The third brother: the Royal Australian Air Force, p. 3

²⁷⁴ Alan Stephens, The Australian centenary history of Defence, volume 2, The Royal Australian Air Force, p. 27

²⁷⁵ Ibid.

²⁷⁶ Ibid., p. 57

²⁷⁷ Chris Coulthard-Clark, The third brother: the Royal Australian Air Force 1921-1939, p. 57

²⁷⁸ Ibid., p. 62

²⁷⁹ Alan Stephens, *The Australian centenary history of Defence, volume 2, The Royal Australian Air Force*, p. 51

²⁸⁰ Ibid.

^{281 &#}x27;Aircraft bombing', The Telegraph, Brisbane, Qld, 22 June 1925

inherent peculiarity of aircraft attack that air power provided the only effective counter, neither the Army or the Navy could intervene to our assistance effectively.'282

A more familiar argument about efficiency was also made by an air power supporter who said that a 'strong air force is the cheapest form of insurance, for, although the two other fighting services must be maintained at an adequate strength, still a relatively small expenditure on air defence will materially lessen the amount that Australia must spend on her army and navy.'283 Finally, Williams made another argument that one of the main reasons for separating the Air Force from the Navy and Army was to enable the powers of the aircraft to be fully developed by officers whose principal interest was such development and to prevent it being treated merely as an auxiliary to the older Services.²⁸⁴

During the turbulent period of history that was associated with the RAAF's formation, significant lessons were learnt by the organisation that are relevant to the creation of a cultural preference to focus on the independent aspects of air power. The constant and vehement attacks by the other Services were traumatic for the RAAF. These events taught the organisation that the need for an independent air force remained a contested concept. The RAAF also learnt, through positive reinforcement, that the best defence against these attacks was to highlight the efficiency created by maintaining only one air force, and to emphasise the independent aspects of air power that allowed it to provide defensive or offensive capabilities more effectively or efficiently than the other Services. Perhaps more importantly, none of the organisational lessons learnt during its early history taught the RAAF that jointness was the key to organisational survival and growth.

4.7 The aviator's basic assumption

Chapter 3 identified that basic assumptions are the most influential element of an organisation's culture. They are implicit, deeply rooted assumptions that people share, and which guide their perceptions, feelings and emotions about certain things. The early years for the RAAF were particularly traumatic. The constant battles with the other Services over organisational survival taught them that they would have to continually justify their reason for existence. Each subsequent attack reinforced this belief. Over time it became so organisationally entrenched that it grew into a basic assumption. Aviators truly believed that the need for an independent air force was a contested concept, and that their organisational survival would require sustained justification. This basic assumption, through the organisational behaviour it creates, could potentially be one of the most influential sources of an independent Air Force focus within RAAF culture.

A combination of the RAAF's traumatic history, and the lessons learnt from a similar struggle within the RAF, created an organisational understanding that their independence was constantly

^{282 &#}x27;Empire defence: safeguarding sea lines', *The Age*, Melbourne, Vic, 14 October 1926

^{283 &#}x27;Air defence: is Australia awake?', The Sydney Morning Herald, NSW, 9 July 1925

²⁸⁴ Chris Coulthard-Clark, The third brother: the Royal Australian Air Force 1921-1939, p. 68

under threat and that to survive they needed to create a robust defence to these attacks. Air Marshal Sir Richard Williams suggests that it was not until the 1930s that the direct threat to the RAAF's existence ceased.²⁸⁵

While it may be correct to assume that most of the influence of contested independence on RAAF culture occurred in a historical sense, it may be premature to suggest that the contested nature of independent air forces has completely disappeared. While overt attacks on the RAAF's independence ceased in the 1930s, this did not completely release organisational concerns. Air Marshal Funnell describes that even during his early career from the 1950s to the 1970s, the RAAF felt like it had to fight to stay alive because there were 'senior Army officers who could see nothing for the RAAF except supporting the Army.' There is also a continual stream of international commentary and events that question the role of independent air forces. A contemporary example from the United Kingdom shows just how often the Air Force's basic assumption gets reinforced.

In July 2009, the British Government announced that it would undertake a Strategic Defence Review (SDR). Though not specifically stated, the general opinion as to why the SDR was being undertaken was the dire financial situation within the UK. Immediately after the SDR was announced, newspaper reports started predicting a cut in defence spending of about 10 to 20 per cent.²⁸⁸ Newspaper articles appeared suggesting that Britain could no longer afford three separate Services and that consideration should be given to 'closing the RAF.'²⁸⁹ The Chief of Defence Staff started a wildfire when he suggested that the 'merger of the Armed Forces should be debated'²⁹⁰ and that 'it was only "plausible" that they would all exist separately in ten years' time.'²⁹¹ As organisation theory suggests, as soon as sub-groups are forced to compete for scarce resources the chance of conflict increases, so it is unsurprising that General Sir David Richards, the head of the British Army, began publicly questioning the value of new fighter jets in an era of counter-insurgency and guerrilla warfare.²⁹²

In response to all these threats, the RAF replied in a manner wholly reminiscent of the defences that were mounted in the 1920s. The RAF Chief of Air Staff argued that to 'invest in Britain's air

²⁸⁵ George Odgers, *The golden years: the Royal Australian Air Force 1921–1971*, Australian Government Publishing Service, Canberra, ACT, 1971, pp. ix–xi

²⁸⁶ Air Marshal Ray Funnell AC (Retd), Interview, 17 May 2017

²⁸⁷ Robert M Farley, *Grounded: the case for abolishing the United States Air Force*, University Press of Kentucky, 2015

²⁸⁸ Tom Coghlan, 'The future of defence part three: the RAF,' *Times Online*, 3 February 2010, viewed April 2017, http://www.timesonline.co.uk/tol/news/politics/article7012792.ece

²⁸⁹ Iain Martin, 'Will the Tories axe the RAF?', The Wall Street Journal, 18 September 2009

²⁹⁰ James Kirkup, 'Merger of armed forces "should be debated", The Telegraph, 3 February 2010

²⁹¹ Ian Drury, 'Could this be the end of the RAF? Military chief refuses to rule out merger with Navy as cuts loom', *Mail Online*, UK, 4 February 2010, viewed April 2017, http://www.dailymail.co.uk/news/article-1248171/Green-paper-reveals-defence-budget-cuts-new-alliance-France.html

²⁹² James Kirkup, 'Merger of armed forces "should be debated", The Telegraph, 3 February 2010

capabilities was a cost-effective way to deter, to provide rapid military options for politicians and to avoid expensive and lengthy ground wars.²⁹³ He also said that 'air and space power is not an optional luxury that can be added to an erstwhile military operation on the ground or at sea, it provides the essential foundation for any sort of military endeavour.²⁹⁴ The RAF also publicly suggested that it would be more efficient if the RAF ran all combat jet operations, which would mean transferring the Royal Navy's jets to the RAF.²⁹⁵

When the independence of the RAF was challenged, the organisation responded using the lessons it had learned during its formative years. The RAF once again justified itself by highlighting the independent or war-winning capabilities it had, and by arguing that maintaining one air force is more resource efficient than having multiple providers of air power. While it is unlikely that the effects of contested independence are as pervasive now as they were in the middle of last century, the RAF example shows that it is not beyond belief that the RAAF's independence might be questioned again if there was a dramatic shift in strategic and economic circumstances in Australia.

Though the concern over contested independence may no longer be as disquieting for the RAAF leaders of today, it still creates a significant organisational influence. Its ability to create a lingering cultural impact is a phenomenon that can be explained by organisation theory. In accordance with Schein's theory on organisational culture, ²⁹⁶ it is the by-products of a basic assumption that have the potential to create organisational influence. Contested independence continues to have an impact on RAAF culture, and its associated relationship with jointness, through two shared beliefs that are considered by-products of the original basic assumption. The first belief is related to the essentiality of independent Air Force roles, the second to the need to maintain only one provider of air power.

4.8 The supporting shared beliefs

Schein's theory on the multi-layered phenomenon of culture describes shared beliefs as a form of organisational learning that has occurred through the observation of cause and effect. Over time an organisation learns that certain solutions or actions create the desired outcome, and this learning becomes entrenched within the organisation as shared beliefs. The actions of both the RAAF and RAF support that aspect of Schein's theory.

When both organisations faced continued attacks on their independent status they deployed defences to neutralise the perceived or actual threat. During that defence, it became apparent that

²⁹³ Alex Barker, 'Air Force Chief defends role and spending', Financial Times, 16 February 2010

²⁹⁴ James Kirkup, 'RAF chief: don't cut fighter jets', The Telegraph, 15 February 2010

²⁹⁵ Sean Rayment, 'RAF chief predicts controversial takeover of Royal Naval air power', *The Telegraph*, 7 June 2009

²⁹⁶ See Chapter 3.10.

certain arguments were more effective at neutralising the threat, and these became the standard solutions used to deflect attacks on the organisation's independent status. In line with Schein's theory, those solutions were then entrenched within both organisations as shared beliefs.

Based on those shared beliefs, the RAAF thinks that it gained and continues to maintain its independence for two main reasons. Firstly, because the RAAF has an autonomous role capable of reducing the costs of war; and secondly, maintaining only one air force is the most efficient and effective way of providing air power. Both these shared beliefs are relevant to this work because one of them creates an organisational focus on independent air force capabilities, and the other can lead to a reduction in strategic cooperation due to an increase in conflict associated with inter-service rivalry.

Prior to discussing how and why the independent capabilities of air power remained such a focus for the RAAF, it is important to once again discuss the duality of motivation. Though this book has drawn a fairly straight line between the creation of contested independence and the need to emphasise the autonomous capabilities of air power, it is important to note that this focus could also be based on genuine belief. To suggest that multiple generations of aviators conspired to use a 'false prophecy' of strategic bombing to maintain or gain independence for their organisations would be thoroughly disingenuous. While most would agree that strategic bombing has never been able to live up to the predictions of Douhet, its efficacy in achieving strategic effect has never been either fully proven or unproven. The use of air power to create strategic effect is still a valid military concept, though its effectiveness remains contested. While it may have been an organisational imperative to emphasise the independent capabilities of air power, the aviators doing so may have also believed in its ability to be decisive in war.

4.9 The independent capabilities of air power

Individuals in the RAAF believe that the organisation exists because of the independent air power capabilities they create. Part of that comes from a basic assumption over contested independence, but lasting strength and cultural pervasiveness can only be achieved if that belief is constantly reinforced. The RAAF has a long history of emphasising the importance of independent air power capabilities.

During World War II, Australian aviators were either employed in Europe as part of the RAF, or as integrated operational units with the United States Army Air Force (USAAF) as part of the Allied Air Forces in the southwest Pacific.²⁹⁷ Throughout the war Australian aviators were exposed to all aspects of air power. This included operations that emphasised the independent aspects of air power, and many that showed the importance of air power in its joint role.

²⁹⁷ Alan Stephens, Going solo: the Royal Australian Air Force 1946-1971, pp. 6-7

As part of the force that fought the Battle of Britain, Australian aviators learnt the importance of air superiority, and that the need to 'own' the air could be a decisive factor in both land and maritime operations. The strategic bombing campaign in Europe emphasised how air power could be used to reduce the war-fighting capability of the enemy, even if the results remained controversial. World War II also presented the ultimate display of air power's potential for decisiveness, when two nuclear weapons were dropped on Japan, which subsequently ended the conflict.

Operations also clearly demonstrated air power's value when closely integrated with a ground force. The Normandy invasion represented 'a kind of high-water mark of service integration during WWII, not only in terms of the land, sea and air forces welded together in the largest joint operation in history, but also in terms of results'.²⁹⁸ Similar outcomes were also experienced in the southwest Pacific. In May 1942, at Milne Bay, New Guinea, the RAAF got first-hand experience of what a difference air power could make in a land battle when air-to-ground operations gave 'their army a winning edge.'²⁹⁹

When the aviators returned to Australia they had a choice of which of those lessons they would emphasise. Despite a multitude of experiences clearly demonstrating how effective air power can be in a joint role, when it came to drawing up the plans for the post-war RAAF, its leaders continued to stress its independent aspects.

In the foreword to Plan 'D', which was the government's endorsed post-war defence policy, the Chief of Air Staff, Air Vice-Marshal George Jones, stressed that it is 'universally accepted that air superiority is the first requirement for success' and that:

it was essential to use offensive air power against an enemy's 'vital centres' before any land operations started, indeed, under some circumstances an air attack might be decisive and the army would only have to act as an occupation force.'300

The post-war RAAF had not lost its focus on the importance of independent air power capabilities, with air superiority and strategic bombing as the centrepiece. The introduction of air superiority provided another opportunity for the RAAF to demonstrate the increasing importance of air power. Unfortunately for the RAAF's relationship with joint, air superiority was another independent air force capability that did not demand a closer level of integration between the Services.

In the 1950s, the RAAF's force structure requests and air power theory reflected the British and American aviators' preference for strong deterrence theories based on the application of nuclear weapons (even though the RAAF did not have such weapons).³⁰¹ This deterrence posture also

²⁹⁸ Carl Kenneth Allard, *Command, control, and the common defence*, Yale University Press, New Haven, CT, 1990, p. 108

²⁹⁹ Alan Stephens, The Australian centenary history of Defence, volume 2, The Royal Australian Air Force, p. 143

³⁰⁰ Alan Stephens, Going solo: the Royal Australian Air Force 1946–1971, pp. 30–31

³⁰¹ Ibid., p. 44

suited a change in Australia's strategic policy, where concerns over the continuing spread of communism created a priority for the defence of Australia and significant regional nations such as Malaysia and Singapore.³⁰² During this period the 'RAAF accorded first priority to its bomber force, which would act as a deterrent in the Cold War and take the offensive in the fight for air superiority when operating from either Australia or Malaya.³⁰³

Continuing its preference to adopt rather than create air power theory, the RAAF endorsed the RAF manual, AP1300 *Operations*, as its first authoritative reference on air power doctrine.³⁰⁴ Air Marshal Funnell explained that the AP1300 became the RAAF's air power bible because the organisation had 'nothing else'.³⁰⁵ Though the AP1300 contained a great deal of information on the full range of air power activities, strategic bombers were absolutely central to this document. While it may have discussed other aspects of air power, the organisational preference to focus on the war-winning aspects of air power was maintained, with the manual stating that the great deterrent remains the primary function of air power, that the basic weapon of an air force is the bomber, and that the primary aim of the bomber offensive would remain, as in the past, the destruction of the enemy's capacity or will to continue the fight.³⁰⁶

The next major shift in 'global' air power theory occurred after the Vietnam War and its main focus was to de-emphasise the importance of strategic bombing. The trauma created by the military defeat in Vietnam, and the social unrest associated with such an unpopular war, created a seismic shift within the American armed forces, with a greater emphasis being placed on the importance of joint.³⁰⁷ The failure in Vietnam also forced the USAF to fundamentally question an air power theory that maintained strategic bombing as its centrepiece.

In Australia, a similar move towards improving the priority of jointness was occurring. This shift also started because 'experience in Malaya and Vietnam had confirmed the lesson from World War II that combat power is most effective when applied jointly by air, land and sea forces, rather than by one service.' This focus on joint created the significant changes within the operational command chain, and Service chief responsibilities, that were described in the introduction of this book. On Indeed, this 'push towards "jointness" was accompanied by a suffocating degree of official

³⁰² Australian Department of Defence, A history of Australian strategic policy since 1945, pp. 205-235

³⁰³ Alan Stephens, Going solo: the Royal Australian Air Force 1946–1971, p. 38

³⁰⁴ Ibid., p. 43

³⁰⁵ Air Marshal Ray Funnell AC (Retd), Interview, 17 May 2017

³⁰⁶ Richard Moore, 'A proliferation of Royal Air Forces: bombers and bombs down under, 1954–63', *The Nonproliferation Review*, vol. 21, no. 2, 2014, p. 173

³⁰⁷ Ian Horwood, Inter-service rivalry and airpower in the Vietnam War, p. 186

³⁰⁸ Alan Stephens, *The Australian centenary history of Defence, volume 2, The Royal Australian Air Force,* p. 298

³⁰⁹ See Chapter 1

political correctness in which joint was "good" and single service was "bad", and to say otherwise was to court career ruin.'310

In this environment it is unsurprising that the RAAF de-emphasised its self-proclaimed warwinning and independent capabilities. Though the RAAF still had not published its own air power doctrine, in public discussions it moved away from championing independent capabilities and began emphasising the unique or significant characteristics of air power. This shift in language allowed the RAAF to be a good joint 'player', but still provided the organisation with the ability to emphasise those aspects of air power that made it unique. In a paper titled 'Air power strategy', Air Marshal Funnell described these significant characteristics of air power as flexibility, mobility, responsiveness, survivability, the shock effect when used offensively and its ability to concentrate military power in time and space.³¹¹

Funnell also predicted the crucial factor that would lead to another shift in air power theory, when he wrote that 'the shock effect of air power has been enhanced greatly in recent times by the development of weapons of true precision.' While the 1970s and 1980s may have placed a higher organisational priority on jointness, that notion continues to this day, especially after the events of the first Gulf War dramatically swung air power rhetoric back towards a focus on its independent capabilities. The air power fever that gripped 'the bond of aviators' is epitomised by the following quote:

For the first time in the history of air warfare, the air campaign of the 1991 Gulf War displayed an almost perfect model for the employment of air power. This classic demonstration of air warfare and its merits changed the way in which air power was viewed and brought it to centre-stage with some proponents echoing the claims made almost seventy years ago that air power alone was now capable of winning wars. From there it was only a very small step for air power zealots to claim the high ground and the status for air power as the only force that could win a war on its own, with minimal collateral damage and friendly casualties.³¹³

Throughout the majority of the twentieth century the RAAF predominately maintained a preference for the independent capabilities of air power within their theory, doctrine and service papers. While the advent of joint in the 1980s may have changed the nature of the language, there was a consistent organisational preference to elevate those aspects of air power that are both independent and unique. That preference can be explained by a genuine concern over organisational survival. Because the overt threats to independence ceased in the 1930s, that does not seem a sufficient explanation for the continuation of that focus for the remainder of

³¹⁰ Alan Stephens, *The Australian centenary history of Defence, volume 2, The Royal Australian Air Force*, p. 298

³¹¹ Ray Funnell, 'Air power strategy', in Desmond Ball (ed), *Air power: global developments and Australian perspectives*, pp. 97–99

³¹² Ibid., p. 99.

³¹³ Sanu Kainikara, *A fresh look at air power doctrine*, Air Power Development Centre, Tuggeranong, ACT, 2008, p. 41

the century. This behaviour can partly be explained by the continuing influence of the basic assumption. If it is the culture of the RAAF to believe that the need for an independent Air Force remains contested, the Service will continue to defend it despite the absence of an overt threat.

A more realistic explanation of Air Force's behaviour can be found in bureaucratic management theory, where it is suggested that an organisation will demonstrate a tendency to prioritise those aspects of their capability that, they believe, are important to their survival and growth. It is more likely that the RAAF continued to highlight the independent capabilities of air power because they believed that emphasising those capabilities would increase their importance and pre-eminence, which in turn would increase their organisational power and their share of limited resources.

Air Marshal Brown provides further insight into the use of independent (air combat) capabilities to create organisational influence. He suggests that the air combat capabilities of the RAAF are easier to sell to people who do not fully understand air power. He believes that air combat defines the battle part of an air force and, much like the infantry, it conjures a more understandable vision of violent men closing with the enemy.

When you look at an Army there is a whole lot of support that is required to get those violent men at the front. I would argue, that in most cases, it is that support that is actually more important in creating success. The Air Force is exactly the same. If you look at the Battle of Britain, the Spitfire got all the glory, but success in that campaign was more to do with radar systems being able to concentrate force. So what we tell ourselves, and what is reality, are often two different things. Sometimes it is simpler to focus on platforms, than all the other stuff around it. In arguments with people who do not understand air power, you have to keep it simple. If we tried to explain the full complexity of Air Force capability in a joint context, people would just glaze over.³¹⁴

With a history of almost 20 years of contested independence, followed by a further 50 to 60 years of organisational manoeuvring for pre-eminence, the RAAF's culture has become infused with a shared belief that the organisation's continued ascendency is intrinsically linked to its ability to deliver the independent capabilities of air power, and in particular the air combat capabilities of strike and control of the air.

Though much of the effect created by this shared belief seems intangible, the strong cultural focus on strike and control of the air does have a very practical influence on the RAAF's relationship with joint. While these two roles are now accepted as an essential part of any joint operation, they do not actually require much, if any, joint cooperation or integration. The RAAF can, for the most part, continue to complete these core roles independent from the other two Services. What that means for Air Force culture is that its two highest priority roles do not engender a need within the organisation to create a larger degree of cooperation and integration between the Services. If strike and control of the air are the RAAF's premier air power roles, it does not have to prioritise joint enabling capabilities to achieve them.

³¹⁴ Air Marshal Geoff Brown AO (Retd), Interview, 16 May 2017

In a situation where a choice needs to be made to prioritise joint-enabling capabilities over Air Force capabilities, this cultural preference for air combat capabilities has a degree of influence over the RAAF decision-maker. This work does not suggest that this inclination is a conscious consideration by RAAF leaders when making priority decisions. The influence of this shared belief is more correctly characterised as a subconscious belief that core Air Force capabilities are at the heart of the organisation's reason for existence. Within organisation theory, it is expected that an establishment will create a cultural preference for those aspects of their business that they believe increase their importance and political influence. In that respect, the RAAF's cultural bent towards core Air Force capabilities, which have historically proven their ability to increase the importance and relevance of the organisation, should be seen as neither unusual nor unexpected.

4.10 One provider of air power

Having been created under the same basic assumption of contested independence, the early history of the RAAF's second shared belief is not dissimilar from that of the first. The belief that one air force is the most efficient and effective way of providing air power started as a defensive solution against the constant threats to the RAAF's independent status in the 1920s and 1930s. The most notable difference is that the efficiency belief is more directly related to the actual historical decision of why the RAAF was created, with independence having been gained because the government saw the RAAF as a method of reducing duplication within the other two Services.

The other major difference between the two beliefs is that the efficiency belief has not been directly championed within air power theory and doctrine to the same degree as has the independent aspects of air power. The effects of the efficiency belief are predominately identifiable in the organisational behaviour displayed by the RAAF during periods of inter-service politics. Admiral Sir Anthony Synnot, a previous Chief of Defence Force Staff, described the cultural aspect of this efficiency belief at a Parliamentary Joint Committee where he gave evidence that the RAAF believes 'everything that flies must be flown by an air force officer and that became a little bit part of the training of young air force officers.' Though there is less air power theory that can be immediately attributed to the efficiency belief, it does exist, but it also needs a level of interpretation to accurately recognise the link. Air power theory does not call for the existence of only one air force; instead it stresses the importance of the centralisation of command.

Centralisation of command is an extension of the efficiency belief at the operational level of war. The theory suggests that centralising the command of air assets ensures that they are used in the most effective manner and are not wasted through decentralised allocation, more often referred

³¹⁵ Australian, Parliament, Joint Committee on Foreign Affairs and Defence, Sub-Committee on Defence Matters, May–June 1982 – Official Hansard Transcript of Evidence, Commonwealth Government Printer, Canberra, ACT, 1982, p. 41

to as 'penny packeting.'³¹⁶ Winnefeld and Johnson explain this concern by suggesting that Air Force commanders fear that 'scarce assets will be frittered away or misused when placed under the command of officers whose primary responsibilities are for operations in other domains.'³¹⁷ Not only could air assets be wasted by not centralising their command, they could be misused by placing them under the command of someone other than an aviators, whose lack of specialisation would not allow them to apply the full combat capabilities of air power.³¹⁸

While the centralisation of command is normally associated with combat operations, it does have some relevance to the efficiency belief. The initial arguments for maintaining one air force were predominately made on the reduction in duplication and the more efficient use of resources. The centralisation of command argument could be applied to the strategic level by suggesting that having air assets distributed between all three Services reduces the opportunity for those assets to be used in a more flexible and efficient manner. The divisions created by Service ownership remove the advantages of the centralisation of command and result in the air assets being 'penny packeted' for single Service functions.

To take this theoretical position to its conclusion, if the RAAF was responsible for all air power assets within the ADF, it could apply them in a more efficient and effective manner because it could better allocate the most suitable platform for the task and could ensure that air assets were not under-employed waiting for single Service tasking. The RAAF would be the best Service under which to centralise the air assets, because aviators more fully understand the application of air power. Air Marshal Evans described this belief when he suggested that during his service the RAAF 'had always taken a view that anything "air", should be Air Force.' While the theoretical background to the efficiency belief may have needed some extended interpretation to understand the link, its primary use as a defence against organisational threats is a great deal more obvious and has a long history within the ADF.

As part of the initial turbulence of the first two decades of the RAAF's existence, Air Marshal Sir Richard Williams, the Chief of Air Staff, had to campaign to have air power provided by aviators aboard naval vessels. During this campaign Williams continued to use arguments based on the efficiency belief because they were difficult for the Navy to counter. Williams was successful in temporarily settling the inter-service rivalry in the RAAF's favour, when a 1928 Cabinet decision directed the RAAF to provide the Navy's new aircraft carrier with aircraft, pilots and technicians.³²⁰

³¹⁶ Robert Lowry, *The Last Knight: a biography of General Sir Phillip Bennett AC KBE DSO*, Big Sky Publishing Pty Ltd, Newport, NSW, 2011, p. 216

³¹⁷ James A Winnefeld and Dana J Johnson, *Joint air operations: pursuit of unity in command and control, 1942–1991*, Naval Institute Press, Annapolis, MD, 1993, p. 7

³¹⁸ Ibid., p. 7

³¹⁹ Air Marshal David Evans AC DSO AFC (Retd), Interview, 1 May 2017

³²⁰ Anthony Wright, *Australian carrier decisions: the acquisition of HMA Ships Albatross, Sydney and Melbourne*, Maritime Studies Program, Canberra, ACT, 1998, p. 40

The inter-service rivalry between the two organisations flared up again in June 1945 when the Defence Committee recommended that Navy investigate purchasing aircraft carriers as part of a balanced Task Force. As part of this acquisition the RAN proposed the creation of a fleet air arm based on the argument that the aircraft carrier could not be an efficient ship if the crew had not been 'trained in and owe a single allegiance to' the RAN.³²¹ In response to Navy's proposal to create a 'second air force' in the guise of the fleet air arm, the RAAF once again used defensive arguments based on the efficiency belief.

Air Marshal George Jones, the Chief of Air Staff, 'opposed the formation of a Naval Air Branch as it would have been a rival air force and would have been competing for the same resources, money and personnel.' Jones argued that the 'development of two separate organisations would lead to inefficiencies, such as duplication and parallel training regimes,' and that 'considerations of economy and efficiency made it essential for Australia to have only one air force.' The RAAF's argument was based on the maximisation of air effort being dependent upon unified – that is, single Service – control of ship-borne and land-based aircraft. To create a separate establishment for aircraft operating from a two-or-three carrier fleet would be uneconomic. Unified control would minimise duplication and waste."

While the relationship between the RAAF and Army Aviation has been extensively covered in Chapter 2, the majority of that discussion centred on the priority the RAAF placed on providing joint capabilities to Army. One area that was not specifically covered, but which is relevant to this section of the book, is the methods by which the RAAF attempted to limit the expansion of Army Aviation. In 1956, when the Minister for Air, Athol Townley, became aware of Army's desire to create an aviation capability, he immediately understood the threat that posed to the RAAF's position as the primary provider of air power. Townley expressed his concern to the Air Board when he wrote: 'We now have two air forces, are we to have three? The RAAF is the air arm, and should not agree to any – even the smallest part, going from its control.'³²⁴

In 1960 when the Defence Committee finally approved Army to own and operate light aircraft, Army's ability to threaten the RAAF's pre-eminence in air power was curtailed by the imposition of a weight restriction (not above 1820 kilograms) on the aircraft and strict limits were placed on the roles they could perform.³²⁵

³²¹ Anthony Wright, Australian carrier decisions: the acquisition of HMA Ships Albatross, Sydney and Melbourne, p. 148

³²² Peter Helson, *The private Air Marshal: a biography of Air Marshal Sir George Jones KBE CB DFC*, Air Power Development Centre, Canberra, ACT, 2010, pp. 326–327

³²³ Anthony Wright, Australian carrier decisions: the acquisition of HMA Ships Albatross, Sydney and Melbourne, p. 134

³²⁴ Air Power Development Centre, RAAF Historical Section, Air Board Agenda 12567, 9 October 1957

³²⁵ Alan Stephens, 'The odd couple: Army/Air Force relations', in Jeffrey Grey and Peter Dennis (eds), From past to future: the Australian experience of land/air operations – proceedings of the 1995 Australian Army History Conference, p. 151

In 1966 when the issue of who should be responsible for providing air support to Army was raised with the Minister for Defence, the Minister for Air stated that it was the RAAF's position that they should be made responsible for Army aviation. In supporting this position the Minister for Air resorted to using the efficiency belief and wrote 'the allocation of full responsibility would be consistent with the general policies of inter-dependence between the Services; problems of duplication of staff overheads, integration of activities, cooperation, that arise if responsibilities are divided, will disappear. While the Minister for Defence decided to allow Army to continue to provide air support, in his letter justifying the decision he addressed RAAF concerns over their air power primacy by writing, 'it is to be clearly understood that there is to be no extension of the currently approved roles and tasks of Army Aviation to include tasks which are normally a RAAF responsibility.'³²⁸

In applying this decision, the RAAF's paranoia over their potential loss of air power pre-eminence continued to be on display in the wording of the Chief of Air Staff/Chief of General Staff implementation agreement. When describing the roles that Army Aviation would undertake, the agreement stated that only in an emergency could Army undertake casualty evacuation or the carriage of freight and personnel, because those tasks belonged to the RAAF.³²⁹ The organisational imperative of restricting Army's expansion in air power roles continued in 1966 when the RAAF insisted that, if Army needed twin-engine aircraft for liaison, communication and battlefield surveillance, they should be Air Force aircraft.³³⁰

Even though the RAAF lost the initial argument to create Army Aviation, the effects of the basic assumption and the efficiency belief drove it to campaign for tight controls on what roles Army Aviation could perform. As Chapter 2 demonstrated, during this period the RAAF did not place any real priority on their joint responsibility of supporting the Army. This situation clearly created a dichotomy for the RAAF, where it could not place the appropriate organisational priority on the joint mission of providing air support to Army, but still saw it as an organisational imperative to restrict Army's ability to provide it for themselves. This contradiction can be best explained as a result of the interaction between the two shared beliefs. One belief created a cultural preference within the RAAF for independent air force capabilities, and the other created a cultural imperative to limit the other Services' encroachment on the RAAF's primacy in air power. Nothing in organisation theory has ever suggested that cultural influences need to be logical.

³²⁶ AWM 121, Folio 68, Letter to the Minister for Defence from the Minister for Air, 22 September 1966

³²⁷ Ibid.

³²⁸ AWM 121, Folio 118, Decision by Minister for Defence on Organic Army Aviation

³²⁹ AWM 121, Folio 122, Agreement by the Chief of General Staff and the Chief of Air Staff on implementation of the decisions by the Minister for Defence, Annex A of 29 September 1966 relating to Air Support for the Army

³³⁰ AWM 121, Folio 79, Letter from DCGS to CGS No. 167/66 – DCGS/DCAS Army Aviation Notes on Discussion, 11 October 1966

Much like the previous belief, the efficiency notion started as a defensive measure against early attacks on the RAAF's independent status. Continuing the similarity, the removal of those direct attacks in the 1930s did not stop the RAAF from pursuing this belief. Even when the other Services were authorised to own and operate air assets, the RAAF campaigned to reduce the roles they were allowed to undertake. While some of this organisational behaviour could be explained by a pursuance of the centralised command concept within air power theory, organisation theory once again provides a more plausible explanation. The RAAF did not want the other Services to undertake air power roles because it would reduce its organisational importance, and adversely affect the organisation's influence within Defence. The RAAF's organisational influence would be reduced if it did not remain the primary provider of air power for the other Services.

The efficiency belief differs from the independence belief in its consequences for the RAAF's relationship with joint. Unlike the independence belief it does not create a focus on air force capabilities, it instead creates an organisational imperative to restrict the other Services from providing their own air power. This imperative can lead to conflict between the Services, and if that conflict then leads to inter-service rivalry, it creates the potential for a reduction in joint cooperation and cohesion at the strategic level. The significance of inter-service rivalry, and the effect it has on joint relationships at the strategic level, will be examined in the next chapter.

The shared beliefs, which were created by the RAAF's organisational learning during its early history of contested independence, remain an influence on the organisation's relationship with joint. While both beliefs started out as methods of defence against institutional attack, they have morphed over time to create distinct organisational preferences and behaviour. While the shared beliefs historical influence has been shown to be significant, its impact may not have been so substantial if it had not been sustained and supported by other aspects of RAAF culture. The focus of the work will now turn to the influence created by these supporting features of RAAF culture.

4.11 Supporting cultural aspects

The sources of the RAAF's basic assumption and two supporting beliefs have created a cultural propensity for the organisation to focus on the independent aspects of air power and their associated Air Force capabilities. This cultural preference to focus on core Air Force capabilities is potentially one of the reasons why joint-enabling capabilities are not provided a higher level of priority within the organisation. While it is plausible that this cultural belief has a degree of influence on RAAF decision-makers, it would be difficult to sustain an argument that the RAAF's tendency to prioritise Air Force capabilities is created by this cultural influence alone, especially within the modern RAAF, which has not experienced a serious threat to its organisational status since 1987 when the helicopter capability was transferred to Army. To create a compelling argument that culture creates a significant influence on the priority decisions made by the RAAF's leadership, it will need to be demonstrated that there are other aspects of Air Force culture that support this biased behaviour. Though, as predicted by organisation theory, attempting to do so will potentially add an increased level of intricacy.

Chapter 3 described how organisation theory suggests that for a particular culture to be pervasive it needs to be sustained by supporting elements, such as norms of behaviour, customs, symbols and the requirement for a socialisation process. Chapter 3 also described how organisation theory evolved into three main disciplines — organisational design, behaviour and culture — because individually none adequately describes the complexity of an organisation's observed behaviour. It is this interplay and interconnectedness between the disciplines of organisation theory that adds to the difficulty of accurately describing the cultural elements that sustain a focus on Air Force capability within the RAAF. In order to accurately describe the practical manifestations of these sustaining elements of culture, it will be necessary to locate that description within the context of the RAAF's organisational structure and, at times, its behaviour. This interplay between the disciplines will make it difficult to accurately define where the boundaries of the RAAF's culture exists, but the complexity is necessary to paint the full picture of why joint enabling capabilities may not receive an appropriate level of priority.

4.12 Force generation focus

One of the major characteristics of bureaucratic organisations is that they create sub-groups of specialisation to manage complexity.³³¹ As described in Chapter 3 this trend of creating sub-groups for specialisation is strongly apparent within the Services, and within the RAAF there is one form of sub-grouping that has the potential to create a significant amount of influence on the culture of the RAAF's future leaders. That influential sub-grouping is the Force Element Group, an organisation created by the RAAF to manage individual Air Force capabilities.

A Force Element Group (FEG) is a command headquarters responsible for a number of 'Wings' that have a common mission or domain focus.³³² Within the RAAF there are FEGs³³³, which are listed at Table 7 and whose area of specialisation is described within their organisational title. Also provided at Table 7 is a list of the 14 Wings that comprise the five FEGs and their areas of specialisation.

³³¹ Beverly H Burris, 'Technocratic organisation and control', Organisation Studies, p. 10

³³² A Wing is a command headquarters that is responsible for a number of Squadrons. A Squadron is the smallest command element with the RAAF and it consists of the people and equipment necessary to undertake its primary role.

³³³ The Air Warfare Centre could be considered a sixth FEG, but it is not described as a Group by the RAAF.

Table 7: Force Elements Groups areas of specialisation³³⁴

Force Element Group	Wings under command	Area of specialisation
Air Combat Group	No. 78 Wing	Air Combat Training
	No. 81 Wing	Air Combat – Control of the Air
	No. 82 Wing	Air Combat – Strike
Air Force Training	Air Academy Headquarters	Aviation Specialist Training
Group	Ground Academy Headquarters	Non-Aviation Specialist Training
Air Mobility Group	No. 84 Wing	VIP Transport / Medium lift air mobility
	No. 86 Wing	Air-to-Air Refuelling / Heavy lift air mobility
Combat Support Group	No. 95 Wing	Deployable Combat Support and Security
	No. 96 Wing	Air Base Combat Support
	Health Services Wing	Deployable Health Support and Aeromedical Evacuation
Surveillance and Response Group	No. 41 Wing	Ground Based – Air Battle Management
	No. 42 Wing	Airborne – Air Battle Management
	No. 44 Wing	Air Traffic Control / Joint Battlefield Airspace Control
	No. 92 Wing	Maritime Surveillance and Response

FEGs are the organisations within the RAAF that are responsible for force generation and sustainment, which is an enabling air power role focused on ensuring that the current force has the necessary personnel, skills and materiel to conduct and sustain air operations – both domestic and expeditionary – while maintaining the ability to regenerate the force during and after operations.

³³⁴ Unclassified information gathered from Royal Australian Air Force web site: Structure of the RAAF, viewed April 2022, http://www.airforce.gov.au/About-us/Structure-of-the-RAAF/?RAAF-pgmUdI54oD/7ZI5LVP3JEZ6o3NEOB/BC. Areas of specialisation are unclassified descriptions gathered from internal Defence websites.

As the description suggests, force generation is an extremely difficult activity that requires continuous and sustained effort from the FEGs. Air Commodore William Kourelakos stated that this task is made more complex by the limited resources, in terms of funding and personnel, which the FEGs receive.³³⁵ With the FEGs operating in a resource-constrained environment, joint enabling capabilities compete with force generation activities for priority, unless the joint capability has an obvious link to force generation requirements. Kourelakos believes that commanders of both FEGs and Wings are more likely to prioritise force generation because it is one of the few aspects of their performance that can be objectively measured.

Force generation requirements are detailed within the Chief of Air Force Preparedness Directive (CAFPD). The CAFPD is a classified document that details the type and number of force elements that each FEG is required to have available for operations. The FEGs' compliance with the CAFPD is easy to objectively measure because they either do, or do not, have the required number of appropriately prepared force elements. It is the objective nature of compliance with the CAFPD that makes it a priority for the FEG. Kourelakos believes that:

RAAF commanders do not value force generation in a joint construct; they primarily value what they are rewarded for, and that is compliance with the CAFPD, but that document only details the number of platforms, it does not talk about the scenario and it does not detail Air Force and joint integration requirements.³³⁶

The need to comply with the CAFPD creates a priority within the FEGs to devote their limited time and resources to force generation, which currently places no requirement on the FEG to integrate with other Air Force or joint capabilities.

Air Marshal Brown provided a similar but slightly different perspective by suggesting that the RAAF has always had to operate with insufficient personnel. He believes that it is this limitation, rather than the CAFPD, that drives the majority of the FEGs' priority decisions. Brown blames a lack of personnel resources on the requirement for the Services to provide manning for an ever-increasing number of joint capabilities, but that requirement has never been matched by a corresponding increase in the Services' baseline personnel numbers to undertake the new tasks. This results in the FEGs not having the personnel resources to complete their force generation requirements because they are 'stretched beyond belief'. With this limitation, he believes 'it gets down to just doing the basics, they are just trying to generate the most number of pilots that they can. If you cannot actually fly the aeroplanes, you can be as joint as you like at the headquarters, but to a certain extent that's not going to get the job done.'337

Within this resource-limited construct, the FEGs and Wings will look to undertake activities that provide maximum opportunity to achieve their FEG-based force generation requirements for each specialised capability. Unfortunately, the nature of force generation training means that

³³⁵ Air Commodore W Kourelakos (Retd), Interview, 18 April 2017; see also Chapter 1.2

³³⁶ Ibid

³³⁷ Air Marshal Geoff Brown AO (Retd), Interview, 16 May 2017

integrated Air Force and joint activities tend to be unsuitable or less productive. Force generation training is about making the individuals employed within the force elements professional masters of their specific specialisation. This need to create professional mastery lends itself to training that is graduated in complexity and that allows for constant repetition. Integrated or joint training tends not to be ideal for this task because either the complexity requires the specialist to 'run' before they can 'walk', or the exercise scenario cannot usually be designed to allow for all the specific specialist training objectives and the repetition required.

Kourelakos provided a practical example of how quickly FEGs will drop activities that do not meet force generation requirements. Air Mobility Group created an exercise called Precision Red that was designed to meet the force generation requirements for the airdrop capability. It started as a small scale FEG-based activity that was designed to train C-130 Hercules aircrew on the specialised skills of tactical flying and airdrop. To enable this activity Air Mobility Group requested Combat Support Group to provide air load specialists. When Combat Support Group attended the exercise they realised that it was a good opportunity for them to also undertake force generation training, so they steadily increased their commitment to the exercise. The increased commitment meant that Combat Support Group also wanted to maximise their force generation opportunities, and they introduced specialised training scenarios to meet their requirements. Unfortunately, at times this meant that their specialised training became the focus and they could not fully support Air Mobility Group. This ultimately led to an unacceptable reduction in the effectiveness of the exercise to undertake airdrop training, which affected Air Mobility Group's ability to force generate, which in turn led to their withdrawal from the exercise that they had initially created.

While joint training tends to be unsuitable for some aspects of force generation training, there is a more practical reason why the majority of force generation training is conducted outside of the joint construct, and that is simply a lack of available joint training opportunities. Large-scale joint exercises that would provide the wider joint context for air operations are rare because they are highly complex and resource intensive. Indeed, large-scale joint exercises can reduce a Service's ability to force generate because the personnel overhead associated with planning and controlling the exercise consumes a great deal of the available training resources. The sheer scale of joint exercises, and the fact that they place the ADF on a practice wartime footing, means that they are extremely expensive because they consume vast amounts of logistic support. All these concerns mean that the opportunities for the RAAF to conduct force generation training within a joint context are extremely limited.

This lack of desire, or opportunity, to undertake force generation training inside a joint context could be one of the main reasons why the FEGs maintain a focus on core Air Force capabilities. While the majority of Air Force capabilities are inherently joint, that does not mean their force generation training needs to be conducted within a joint context. The nature of specialist aviation training is such that the vast majority of it can be completed devoid of a broader joint context, because joint enabling and integration issues can be simulated by the use of pre-determined training inputs. Unfortunately, by simulating the broader joint context, the Air Force capability

does not become familiar with the joint capabilities required to enable and integrate their operations, and because they do not interact with the other Services they gain little understanding of how their capability enables the operations of their joint partners.

The concept of *familiarity* is very important to understanding why a lack of real joint context can create a focus on core Air Force capabilities. Gillian Fournier explains that a psychological phenomenon exists called the *mere exposure effect* 'whereby people feel a preference for people or things simply because they are familiar.' This is also known as the *exposure effect* or the *familiarity principle*. If the FEGs are more familiar with the Air Force aspects of their capability, the *mere exposure effect* suggests they will probably place priority on those items. Air Commodore Bellingham also believes that familiarity plays an important part in the priority decisions made within the RAAF. He suggests that joint enabling capabilities are harder to justify because 'there is no empathy or understanding of detail, Air Force leaders do not know all of the issues intimately because they do not have the joint experience to be able to fully comprehend the requirement.' Air Marshal Hupfeld also supports the importance of familiarity by explaining that when he was the Air Commander Australia, other than operational experience, the only other method he had to fully understand the increasing priority for a joint capability or integration requirement was during joint exercises. 440

The primary priority for the FEGs is to generate the Air Force capabilities stipulated within the CAFPD, but because that document does not detail the level of integration or capability required to enable joint operations, the same priority is not applied to those capabilities. For a FEG to place an increased level of priority on joint enabling capabilities something needs to increase their essentiality. As demonstrated in Chapter 2 the increasing importance of a joint capability can become evident during operations because aviators become more familiar with the joint context within which their air power capability is being employed. Outside of operations, that familiarity can only be created if aviators receive an adequate exposure to the joint context. Unfortunately, that tends not to happen during force generation training because of the lack of joint training opportunities. In relation to the necessity of joint enabling capabilities, the lack of joint exposure means that aviators 'don't know what they don't know.'

In this instance the decision to not prioritise joint enabling capabilities is not obviously culturally based; it appears more likely to be another demonstration of organisational behaviour where leaders decide to prioritise those aspects of capability that they believe will create a positive outcome for the organisation and themselves. Limited exposure to the joint context means that there will be limited opportunities to create an internal imperative for the capabilities that enable joint operations. Without that exposure the FEGs will continue to maintain their focus on core Air Force capabilities. While the decision to prioritise force generation may not be obviously

³³⁸ Gillian Fournier, 'Mere exposure effect', *Psych Central*, viewed on July 2017, https://psychcentral.com/encyclopedia/mere-exposure-effect/

³³⁹ Air Commodore Stuart Bellingham DSC AM CSC (Retd), Interview, 18 May 2017

³⁴⁰ Air Marshal Mel Hupfeld AO DSC (Retd), Interview, 6 July 2017

culturally based, it does influence the creation of another cultural aspect that supports the RAAF's focus on Air Force capabilities. The main reason for that influence is because the 'FEGs are the nurseries of the RAAF's future leaders, and those nurseries are blue.'

4.13 The value of a specialist

As pointed out in Chapter 3, it is widely accepted that pilots, and to a lesser extent other members of the aircrew family, are the dominant senior leaders of the RAAF. Alan Stephens suggests that this has been the case since 1927 when the pilot 'became the omnipotent arbiter of everything.' While other aspects of this leadership dynasty will be discussed later in the chapter, the relevant point for this discussion is that the future leaders of the RAAF are aircrew, and all of them begin their careers in the force generation focused FEGs.

Group Captain Stephen Witheford, who was a Director of Workforce Planning within the RAAF, explains that the first ten years of an aircrew officer's career is all about professional mastery, which entails meeting the requirements and progression gates for their respective categorisation schemes. Within the RAAF, and most modern air forces, the progression of aircrew professional mastery is determined by a prescribed categorisation system. This system is designed to train the aircrew in a manner that gradually increases complexity as their individual proficiency improves. It takes such a significant period because there is a vast amount of knowledge and experience needed to take an aircrew candidate from basic aircraft operation through to the ultimate goal of being able to lead an air power element within a combat environment. Due to the demands of this categorisation process, aircrew spend the vast amount of their junior officer careers within one FEG, learning to specialise in the air power tasks allocated to the Wing, and on the specific platform on which they have been trained to operate.

This process of professional mastery within aviation-based capabilities is more commonly referred to as *specialisation*, and it is highly valued by the RAAF. Aviation by its very nature is a complex and unforgiving environment that demands a high level of expertise. When a layer of additional complexity is added by the use of aviation in the military environment, the need for professional mastery becomes even more apparent. Air Marshal Hupfeld described how it is essential for the RAAF to maintain a specialist-focused system. He suggested that the Air Force relies heavily on specialisation to maintain the appropriate levels of competence and safety, and in particular the RAAF's leaders needed to be highly competent in their speciality.³⁴³ The RAAF wants specialists, and specialist leaders, because the highly technical nature of military aviation demands individuals that fully understand the weapon system they fly, operate or manage.

³⁴¹ Group Captain Stephen Witheford, Interview, 27 April 2017

³⁴² Alan Stephens, *The Australian centenary history of Defence, volume 2, The Royal Australian Air Force*, p. 37

³⁴³ Air Marshal Mel Hupfeld AO DSC (Retd), Interview, 6 July 2017

Kourelakos suggests that there is one obvious downside to this focus on specialisation: it relies heavily on a FEG-based training regime that ultimately leads to a stove-piping of the aircrew's focus and attitudes. Having specialists trained within a FEG's force generation cycle means that 'there are few opportunities along the way for aircrew to learn joint behaviours' and 'generally speaking they are not highly valued, or they have not been highly valued in the past, because they do not add to force generation or to the specialist training of aircrew.' 344

Witheford also describes that, because training specialisation occurs within the single service stove-pipe, external joint training courses have been seen simply as 'window dressing' because they are not part of the aircrew categorisation scheme requirements.³⁴⁵ This meant that few aircrew officers took the opportunity to gain greater joint understanding by attending joint professional development courses. A 'blue' focus was created within junior officer aircrew because the majority of their specialisation occurred outside of the joint context and that meant '10 years of being culturally wedded to blue.'³⁴⁶

The FEGs can also have another inhibiting influence on how much joint exposure the RAAF's future leaders receive, because their focus on force generation creates an organisational tendency to keep talented individuals within the specialist capability. Aircrew categorisation requirements add a great deal of complexity to the management of aircrew positions. In recognition of this intricacy the movement of those aircrew officers has been delegated to the FEGs. Each of the FEGs managing aircrew runs an internal Posting Management Board which decides where to employ each of the available aircrew. Air Marshal Brown suggests that the FEGs have little choice but to keep the 'good people close'. The high-risk nature of aviation means that it does not tolerate poor leadership, and to protect itself the FEG will keep quality individuals within the Group.

Brown supported this behaviour because 'careful selection and husbanding of the right people had resulted in a significant improvement in the RAAF's safety record. Though he did lament that this necessity normally leads to 'the "A" team inside Air Force not getting any decent joint exposure; Brown also agreed that a side effect of this behaviour is that joint organisations tend not to receive the Air Force's most talented people, those that will be the organisation's future leaders, and that adversely affects the organisation's reputation in the joint world. Air Commodore Henrik Ehlers, a previous Director General Personnel – Air Force, agrees that this behaviour creates the 'stove-piping of junior officer talent management, which tends to lead to them keeping their "own" and under-valuing both joint positions and the training space.

When specialist training becomes too isolated from a wider Air Force or joint context it has the potential to create a distinct cultural influence on the future leaders of the RAAF. Neil James,

³⁴⁴ Air Commodore W Kourelakos, Interview, 18 April 2017

³⁴⁵ Group Captain Stephen Witheford, Interview, 27 April 2017

³⁴⁶ Ibid.

³⁴⁷ Air Marshal Geoff Brown AO (Retd), Interview, 16 May 2017

³⁴⁸ Air Commodore Henrik Ehlers AM (Retd), Interview, 19 May 2017

Executive Director of the Australia Defence Association and an ex-Army officer, described that influence in the following manner: 'many RAAF personnel [are] still trapped in "silo-ised" category-based cultures which limits their ability to grasp how an air force operates as an integrated organisation, let alone a joint-focused defence force.' Major General Simone Wilkie, a previous Commander of the Australian Defence College, suggests that the RAAF's preference for specialisation is noticeable at the college because some RAAF officers have had 'a very limited exposure to the wider Air Force and the other Services.' Wilkie suggests that this narrowness in some Air Force officers, in comparison to their counterparts in the other Services, is a direct result of the training continuum within the RAAF.

The cultural effects of specialisation are not limited to the RAAF. Lieutenant General Burr indicated that while the Army does place a greater emphasis on generalist training, it is not completely devoid of concerns over being too inwardly focused. While Army may not have the same level of specialisation as the RAAF, Burr suggests that Corps specialisations, such as infantry, armour or logistics, are not immune from creating a narrow cultural focus, and this limited view of capability has the potential for them to become too tactically absorbed. Burr, much like his Air Force counterparts, indicated that those 'tribes' are important, but they always have to maintain a bigger understanding of why they exist, what is expected of them, and how they are enabled to deliver capability as part of the joint force.³⁵¹

Specialisation is an essential part of RAAF capability and by itself does not create a cultural tendency to focus on core Air Force roles. It is the limited exposure to the wider joint context during specialist training that creates the potential for a focus on Air Force capabilities. The focus on specialist training also means that aircrew do not get the opportunity to broaden their understanding of Air Force's role in the wider joint context by undertaking external education courses. In combination, what this creates is aircrew officers who have exceptional technical knowledge for their required specialisation but limited practical or theoretical understanding of what joint capabilities are required to enable and integrate their specialisation into the wider joint force. As Bellingham pointed out, familiarity is key to understanding why joint enabling capabilities and integration needs to be given organisational priority and, at the moment, the specialist nature of aircrew training does not provide the level of joint exposure necessary to breed familiarity.

Hupfeld supports a change in this narrow focus by suggesting that while the RAAF does not need to change its approach to specialisation and the creation of specialist leaders, it needs to make leaders aware of and engaged in joint activities, and allow them to contribute to joint

³⁴⁹ Neil James providing comment on the RAAF's attitude to jointness on The Sir Richard Williams Foundation blog site 'The Central Blue', viewed May 2017, http://centralblue.williamsfoundation.org.au/can-air-force-prioritise-jointness-stephen-edgeley/#comments

³⁵⁰ Major General Simone Wilkie AO (Retd), Interview, 23 June 2017

³⁵¹ Lieutenant General Rick Burr AO DSC MVO (Retd), Interview, 4 July 2017

leadership. ³⁵² In line with Hupfeld's suggestion, another method available to aircrew to increase their understanding of the wider joint context would be to undertake a posting to a joint position. Unfortunately, that rarely occurs for high performing aircrew, because traditionally the RAAF has not valued its future leaders gaining joint exposure.

4.14 The perception of joint roles

The RAAF's official position on employment outside of the FEG is clear, with a previous Chief of Air Force, Air Marshal GN (Leo) Davies, stating in his guidance to the promotion boards that he values 'the experience of officers who serve in roles outside of their core specialisation.' That said, many officers still do not believe that Air Force values joint experience. This belief is in accordance with attribution theory, where an individual's perception of the cause and effect of a given situation leads to an understanding about the future. Air Force values officers have learnt through observation that joint positions are not particularly valued by the RAAF.

In determining what positions the RAAF values, aircrew officers are once again heavily influenced by the behaviour of the FEGs. Due to the intimate command knowledge needed to accurately select the most appropriate officers for key force generation leadership positions, the selection of those positions is largely managed by the FEGs. While the FEGs do not decide on promotions, ³⁵⁵ Witheford explains that the Posting Management Boards are effectively enhanced career management forums that identify individuals requiring talent management. Selection for the 'right' jobs within the FEG has the potential to increase promotion prospects because of the additional responsibility or visibility that they provide. While the FEG does not select officers for promotion, the jobs they select officers for can have a major influence on the outcome. Witheford presents a strong case that decisions 'about progression, promotions and selection for command are influenced by the FEGs because that is where you will find the leaders of the tribes.'

Individual officers observe the tendency for FEGs to select key appointments from within the organisation, and learn that remaining within the FEG increases their chances of advancement, and moving outside the FEG creates the risk of being forgotten during the selection process. Air Commodore Bellingham observed the risk of moving outside a FEG while he was managing the RAAF's air—land integration capability. He points out 'individuals who leave the FEGs to be

³⁵² Air Marshal Mel Hupfeld AO DSC (Retd), Interview, 6 July 2017

³⁵³ Air Marshal GN Davies, Promotion Board Guidance, December 2016

³⁵⁴ Andrew J DuBrin, Foundations of organisational behaviour: an applied perspective, p. 61

³⁵⁵ Promotions with the RAAF are managed centrally by the Directorate of Personnel – Air Force, Unclassified data contained on the Personnel Branch Website, Defence Protected Network, viewed 2 May 2017

³⁵⁶ Group Captain Stephen Witheford, Interview, 27 April 2017

employed in smaller joint-focused specialisations create risk for their careers, because it becomes more likely that they will be ignored when the FEG makes its selection decisions.'357

Witheford points to one final reason why RAAF officers may be influenced not to value joint jobs, and that is related to the perceived risk of stepping outside of an Air Force chain of command. He explains that RAAF officers are concerned about being supervised by officers from the other Services. Their primary apprehension is that the cultural differences between the Services will create a situation where a difference in values and beliefs creates the distinct possibility of conflict. Witheford suggests that 'too many RAAF officers have heard about individuals whose careers have been adversely affected by poor reports from senior Army officers who do not see things the same way and who value different attributes.' That said, Witheford does suggest that, if done successfully, joint positions could actually be high reward because of the broad recognition the officer receives.

The importance of remaining inside the FEG also plays out during an RAAF officer's selection for command.³⁵⁸ Air Commodore Ehlers explained that individual officers believe that there is a direct correlation between the type of command they are selected for and their perceived value within the organisation. The value placed on certain types of command varies for each of the Air Force specialisations, but for aircrew the pinnacle is considered the command of a flying unit. So much value is placed on these types of commands because they are perceived as the 'cutting edge' of their specialisations. Ehlers explained that joint commands are not valued by individuals because they are seen as being too far away from their core specialisation, and tend to be in training or enabling functions. He indicated that RAAF officers believe that employment in a non-command position within their core specialisation is more valued than a joint command.

Kourelakos supports this understanding of value, and describes that when he was selected for a joint command position, as the Deputy Commander of Northern Command, his personal perception was that his career was over because he had not been selected for the 'right' command, and people within his peer group suggested 'he was never going to go anywhere now.' Kourelakos explained that his belief was based on a personal understanding that he needed to get a FEG command to continue to progress within the organisation.

Bellingham suggests that it is not just joint command positions that RAAF officers have learnt not to value. He believes that a 'lack of jointness is bred into Air Force people because there is no incentive to be employed in a joint job.' There is a clear perception that a person is less valued if they are employed in positions that do not directly relate to Air Force capability. Bellingham believes that people in joint positions are 'marginalised' because no matter how well they perform

³⁵⁷ Air Commodore Stuart Bellingham DSC AM CSC (Retd), Interview, 18 May 2017

³⁵⁸ An officer selected for command is given the responsibility to lead and manage an organisation such as a Squadron or Wing. They are held accountable for the capability output of that organisation and the behaviour of the individuals within it. It is seen as one of the most critical points in an Air Force officer's career. A successful command tour doesn't guarantee advancement, but a perceived failure in command will undoubtedly limit progression.

they are not as visible to RAAF leaders as those individuals employed in Air Force headquarters. Lancaster suggests that it does not matter how much the RAAF 'talks up' the value of joint experience, the 'reality is it is still a FEG based, platform-centric, or unit-centric promotion system, that has scant ability to think outside that box.' Ehlers suggests that the RAAF:

prioritising talented people into Air Force positions has, at times, proven to be short sighted. Recently Air Force has been required to build bridges with other Services and the joint community, because Air Force were seen to be doing all things at the expense of joint.

In relation to the priority given to joint positions, the former Chief of Navy, Vice Admiral Ray Griggs, suggests that Air Force's true colours come out, in a negative way, in its attitude to staffing the Australian Defence Force Academy (ADFA). Griggs points out that pilots are rarely posted as directing staff at ADFA, which means that they cannot be held up as role models for the officer cadets. Despite being 'chipped' about it on numerous occasions at the strategic level, Griggs suggests that it is a deliberate policy of the RAAF not to send pilots to ADFA, and that displays what he considers a 'bad attitude' towards jointness. Griggs said that 'the RAAF continues to value the primacy of flying over everything else, I don't care what anybody says, it still oozes out of Air Force, like garlic after a night at an Italian restaurant.'

Major General Wilkie supports Griggs' position by suggesting that she consistently struggled to get the RAAF to send quality people to the joint positions she was responsible for.³⁶¹ She believes that Air Force's preference is to send its future leaders to manage flying capability or to undertake acquisition roles, and that joint experience is not considered an essential leadership prerequisite. Wilkie compared the RAAF's leadership model to the Army's, who place the same value on managing capability but assign a higher priority on future leaders gaining joint experience. Wilkie was quick to point out that Army also occasionally places the incorrect value on certain types of positions, and as an example she highlighted the historic lack of value that the land force placed on sending quality people to undertake acquisition roles.

The narrow 'blue' beginning created by specialisation could be tempered if an organisational priority was placed on Air Force's future leaders gaining joint experience later in their careers, but the Air Force tends to see ground or joint roles 'as an unwelcome intrusion on the "real" jobs of flying and fixing aircraft'. Halperin and Clapp suggest that this tendency is not just limited to RAAF officers and that all 'military officers compete for roles in what is seen as the essence of the service's activity, rather than in the other functions where promotion is less likely.' ³⁶³

³⁵⁹ Group Captain Andrew Lancaster CSC (Retd), Interview, 12 April 2017

³⁶⁰ Vice Admiral Ray Griggs AO CSC (Retd), Interview, 26 May 2017

³⁶¹ Major General Simone Wilkie AO (Retd), Interview, 23 June 2017

³⁶² Alan Stephens, *Going solo: the Royal Australian Air Force, 1946–1971*, p. 62. Stephens' comments are in regard to Air Force's attitude to the task of Ground Defence.

³⁶³ Morton H Halperin and Priscilla A Clapp, Bureaucratic politics and foreign policy, p. 55

The fact that the RAAF places very little organisational value on joint employment experience means that most Air Force officers will resist undertaking those roles. For high performing aircrew, who are already highly valued by the FEGs, this means they are unlikely to be employed outside of Air Force and gain any joint experience that would mitigate the narrow focus created by specialisation. If joint enabling capabilities and integration are relying on a greater understanding of jointness to increase their organisational priority, then the RAAF's culture of under-valuing joint positions makes the creation of that understanding much less likely.

4.15 The narrow leadership tribe

It should surprise very few people that pilots are the historical leaders of an organisation whose primary function is the application of air power from aircraft, but that pre-eminence within the organisation has not simply been maintained by chance, it is a product of organisational behaviour. Within the RAAF the pre-eminence of pilots has been maintained by a disproportionate number of promotions for that category. Due to the accepted dominance of pilots, there was no policy on career prospects developed for any other category between 1921 and 1968.³⁶⁴

The concept of a 'general list' was created in the 1960s, based on an understanding that above the rank of Group Captain (06) the specialised skills of an individual mattered less, and the ability to command and manage should be considered more of a priority. Under the general list concept more leadership positions would be opened up to officers of other categories based on merit. The general list concept was not approved because it 'was too extreme for the pilots who dominated the RAAF, and who would have been the major losers had most senior positions been placed on the open market'.³⁶⁵

The pre-eminence of pilots in leadership positions is important for the priority that the RAAF places on joint enabling capabilities because it is most unlikely that they will gain any significant exposure to the wider joint context. As the previous section explained, the majority of aircrew spend the vast majority of their careers undertaking specialist training within the insular environment of the FEGs, where they get limited exposure to the joint context. If they are quality individuals they are then more likely to stay within the FEGs as they progress through the ranks, because their presence is seen as a method of mitigating the risks associated with military aviation. Even if they were released from the FEGs, it is doubtful that they would pursue employment within a joint position due to a preference to maintain flying careers and because of the perception that joint positions are not valued by the RAAF.

In 1989, the then Chief of Air Staff, Air Marshal Funnell, finally approved the general list concept, and that decision opened up increased opportunities for other categories at the rank of Group

³⁶⁴ Alan Stephens, Going solo: the Royal Australian Air Force, 1946–1971, p. 82

³⁶⁵ Ibid., p. 92

Captain. By 2017, aircrew occupied only 36 per cent of all Group Captain positions. 366 Increasing opportunity was also demonstrated in the representation of other categories within the senior leadership team. Table 8 highlights that between 2005 and 2017 there was a significant increase in the representation of other categories at the rank of Air Commodore (07 – one-star), but a similar change in representation had not occurred at the rank of Air Vice-Marshal (08 – two-star).

Table 8: Officer categories within the senior leadership team³⁶⁷

	2005	2017
Air Commodore		
Number in rank	26	43
Average age	48	51
Average seniority in years	2	2
Number of pilots / percentage	10 / 38.4%	12 / 27.9%
Number of air combat officers / percentage	8 / 30.7%	9 / 20.9%
Number of engineering officers / percentage	6 / 23.0%	8 / 18.6%
Number of logistics officers / percentage	2 / 7.6%	7 / 16.2%
Number of other officers / percentage	0 / 0.0%	7 / 16.2%
Air Vice-Marshal		
Number in rank	8	11
Average age	51	54
Average seniority in years	2	2
Number of pilots / percentage	5 / 62.5%	7 / 63.6%
Number of engineering officers / percentage	3 / 37.5%	4 / 36.4%

While the data in Table 8 demonstrates a significant increase in the representation of other categories within the senior leadership team, these figures are slightly skewed by the fact that the majority of these positions were established outside the RAAF organisation. Of the 43 Air Commodore positions filled in 2017, only 17 were within the RAAF. The remainder were employed either in capability management and acquisition positions, joint roles or specialist capabilities

³⁶⁶ Figures sourced from Group Captain Susan Stothart, Director Senior Officer Management, Defence People Group, 03 May 2017

³⁶⁷ Ibid.

within Defence's strategic centre. A similar picture existed at Air Vice-Marshal rank, where only three of the 11 positions were inside Air Force. The continuing dominance of pilots within Air Force senior positions means that the majority of leaders employed inside the organisation would have had a specialist employment path that concentrated on flying, flying management or capability acquisition. This, in turn, means they had limited exposure to the joint experience.

While RAAF's internal leadership is pilot dominated, the preferential refinement of Air Force's leadership team does not stop at only selecting pilots. As an individual pilot continues to progress within the organisation, they reach a point where simply being a pilot is not enough. To reach the highest echelons of RAAF leadership normally requires the individual to be an *air combat* pilot. Air Commodore Ehlers believes this tendency reflects an organisational preference to value kinetic operations over all other types of air power. The RAAF ranks the roles of air power based on their relationship to kinetic effects, and the organisational value placed on individuals tends to echo that outlook.³⁶⁸ Jans also identified this behaviour in the RAAF, observing that 'in the Air Force, jet pilots are the professional apex, closely followed by other pilots, with other personnel some way back'.³⁶⁹ This further distillation of RAAF leadership does not happen by chance, it is also a product of organisational behaviour.

Promotion within the RAAF up to the rank of Group Captain is a formal process undertaken by a promotion board, with decisions based on annual performance reporting and career experience. Group Captain promotions and postings with the RAAF are decided upon by the Chief of Air Force, which differs slightly from the Navy and Army, who allow the deputy chief to make those decisions. Promotion above the rank of Group Captain is conducted at a meeting known as the 'Blue Star Plot' where the Chief of Air Force (CAF) personally decides on promotion selections, advised by a panel of officers that includes the Deputy Chief of Air Force (DCAF), Air Commander Australia (ACAUST) and the Director General Personnel – Air Force. Group Captain Stothart, a previous Director of Senior Officer Management (DSOM) within Defence People Group, explained that promotion to star rank is more arbitrary with a reduced reliance on annual performance reports and a greater focus on selecting the most appropriate individual for a specific position. Star rank decisions are also more subjective in nature because they rely heavily on the individual being known to the members of the Blue Star Plot, and they also take into account whether the individual's personal qualities match the position for which they are being considered.

Officers with the potential to reach one of the RAAF's three key leadership positions – CAF, DCAF and ACAUST – are normally first identified at the rank of Group Captain. Identification of individuals prior to the rank of Group Captain is unlikely because they have not been placed in a position that allows them to demonstrate strategic and political nous. Those individuals considered suitable are then talent managed into one of the four Air Commodore positions that

³⁶⁸ Air Commodore Henrik Ehlers AM (Retd), Interview, 19 May 2017

³⁶⁹ Nick Jans, The real C-cubed: culture, careers and climate and how they affect capability, p. 125

³⁷⁰ Air Commodore Henrik Ehlers AM (Retd), Interview, 19 May 2017

are considered the primary feeders for the key RAAF Air Vice-Marshal leadership positions.³⁷¹ These four Air Commodore posts are highly valued because they are either considered the RAAF's primary war-fighting capability or strategic positions. Stothart believes that there is a natural inclination for the Blue Star Plot to select an air combat pilot.

Though Stothart was unable to give a definitive answer as to why this inclination existed, she was able to provide a number of potential causes. Firstly, she suggested that there appears to be an assumption within the RAAF's executive that being an air combat pilot naturally makes the individual more suitable for key positions. Secondly, it was probable that the Air Force executive tended to promote in their own image because they were more confident that an individual with a similar background could operate effectively at the strategic level of Defence. Lastly, there was a historical precedent to select air combat pilots to the exclusions of all other candidates.

In relation to the assumption of natural superiority, Ehlers explained that it is most likely a result of a perception within air combat pilots that the mental agility required to operate in the air combat environment seamlessly translates to a whole range of other scenarios. He believes the perception has survived because the RAAF has had many talented air combat pilots who have been able to turn their hand to most strategic tasks, but he also argues that those outstanding qualities are not necessarily the norm. But, he concluded, while the air combat pilot exemplars continue to deliver, the perception of overall superiority will be maintained.

The tendency to select air combat pilots for the key one-star feeder positions has the logical flow-on effect of making it more likely that an air combat pilot will be selected for the key two-star leadership positions (DCAF and ACAUST). This in turn makes it almost a certainty that the Chief of Air Force (three-star position) will also have an air combat background. This propensity to favour air combat pilots in key RAAF leadership positions (CAF, DCAF and ACAUST) is supported by the data contained in Table 9, which shows that 74 per cent of officers employed within those positions between 1987 and 2017 had an air combat background. Air combat pilots control the selection of the future leaders within the RAAF and, for the air combat dynasty to be broken, they will have to agree that other tribes can create officers who are superior to the available air combat candidates.

³⁷¹ The four one-star positions are Director General Capability Planning – Air Force (DGCP–AF), Director General Air Command Operations/AIR (DGACOPS/DGAIR), Commander Air Combat Group (CDRACG) and Director General Military Strategic Commitments (DGMSC).

Table 9: Air combat experience of RAAF senior leaders 372

Deputy Chief of Air Force	Vir Force		Air Commander Australia	Australia		Chief of Air Force		
Name (AVM)	Dates	Air Combat	Name (AVM)	Dates	Air Combat	Name (AIRMSHL)	Dates	Air Combat
Bradford (P)	1987–1990	Yes	Radford (P)	1987–1990	Yes	Funnell (P)	1987–1992	Yes
Radford (P)	1990–1990	Yes	Gration (P)	1990-1992	No	Gration (P)	1992–1994	No
O'Brien (P)	1990–1993	No	Beck (P)	1992–1996	Yes	Fisher (P)	1994–1998	No
Fisher (P)	1993–1994	No	Nicholson (P)	1996–1998	Yes	McCormack (P)	1998-2001	Yes
Rogers (P)	1994–1997	Yes	Titheridge (P)	1998–1999	Yes	Houston (P)	2001-2005	No
Richardson (P)	1997–1997	Yes	Criss (P)	1999–2000	Yes	Shepherd (P)	2005-2008	Yes
McCormack (P)	1997–1998	Yes	Kindler (P)	2000-2003	Yes	Binskin (P)	2008-2011	Yes
Espeland (P)	1998–1999	No	Shepherd (P)	2003-2005	Yes	Brown (P)	2011–2015	Yes
Titheridge (P)	1999–2001	Yes	Quaife (P)	2005-2007	Yes	Davies (P)	2015–2019	Yes
C Spence (P)	2001-2004	No	Binskin (P)	2007-2008	Yes		Total	6 Jo 9
McLennan (P)	2004-2005	No	Skidmore (P)	2008-2012	Yes			
Blackburn (P)	2005-2008	Yes	Hupfeld (P)	2012-2014	Yes			
Brown (P)	2008-2011	Yes	Turnbull (P)	2014-2017	Yes			
Hart (P)	2011–2012	Yes		Total	12 of 13			
Davies (P)	2012-2015	Yes						
McDonald (P)	2015–2017	No				; :		
	Total	10 of 16				Table Key $P = Pilot, A = ($	Other Aircrew,	Table Key $P = Pilot$, $A = Other Aircrew$, $N = Not Aircrew$

372 Air Power Development Centre, RAAF Historical Section, Canberra, Biographical data on the RAAF's Chief of Air Staff/Force and Air-Vice Marshals

This belief that RAAF leaders should be air combat pilots is nothing new. In 1954 the officers writing policy for the employment of RAAF College graduates asserted 'that the "hard core" of the air force is its fighters and bombers and that every endeavour should be made to employ the RAAF's future leaders in these roles: The continual historical preference to select air combat pilots as the most senior leadership for the RAAF explains the organisation's historical predilection to prioritise core Air Force capabilities and in particular the roles of air control and strike.

4.16 The importance of air combat pilots

Air combat leadership tribalism creates a risk for the RAAF because it leads to a command structure that is distinctive for the narrowness of its gene pool, and creates a situation where a small group of pilots dominates the intellectual discussion within the RAAF.³⁷⁴ It is not unusual for an organisation to have such a dominant coalition that controls important areas of policy, but the danger of such a small leadership group is that it creates the opportunity for what Irving Janis calls 'groupthink'.³⁷⁵ Janis describes 'groupthink' as a mode of thinking that people engage in when they are deeply involved in a cohesive in-group, when the members' strivings for unanimity override their motivation to realistically appraise alternative courses of action.³⁷⁶ Allison agrees that 'groupthink' limits the ability of a small group of key decision-makers to consider alternatives and normally drives consensus.³⁷⁷ In relation to the priority of joint enabling capabilities within the RAAF it would be difficult to dismiss the potential impacts of 'groupthink' within the RAAF's most senior leaders.

With the RAAF having a senior leadership group that is predominately air combat pilots, the practical effects of 'groupthink' result in the RAAF having an air combat- centric view of the value of joint enabling capabilities. This means that the RAAF's view of the priority of joint integration is correlated to the air combat organisation's belief in its importance. If air combat believes that joint enabling capabilities are a priority, then they will more than likely become an organisational priority for the Air Force. This intrinsic air combat link has been demonstrated in the recent history of the RAAF.

Former CAF and CDF Air Chief Marshal Sir Angus Houston suggests that historically the fighter pilots employed within the RAAF's air combat capability have been 'cut-off from the rest of Defence', and that this was particularly true when the RAAF operated Mirage IIIs from the late 1960s to the mid-1980s. Houston believes that, in comparison to their maritime and airlift

³⁷³ Alan Stephens, Going solo: the Royal Australian Air Force, 1946–1971, p. 291

³⁷⁴ Alan Stephens, 'Command in the air', in Peter W Gray and Sebastian Cox (eds), *Air power leadership:* theory and practice, Joint Doctrine and Concepts Centre, London, 2002, p. 5, and Alan Stephens, *Power plus attitude: ideas, strategy and doctrine in the Royal Australian Air Force 1921–1991*, p. 181

³⁷⁵ Gareth Morgan, Images of organisation, p. 181

³⁷⁶ Irving L Janis, Groupthink, Houghton Mifflin Company, Boston, MA, 1982, p. 9

³⁷⁷ Graham Allison and Philip Zelikow, Essence of decision: explaining the Cuban missile crisis, p. 283

colleagues, during this period of RAAF history, air combat pilots did not receive any significant joint exposure because they believed that air combat was the 'real' Air Force and that 'they did not want any of that joint stuff.'³⁷⁸ Houston suggests that this lack of joint focus slowly improved after the FA-18 Hornet was delivered, because 'they became gradually more and more joint as they got involved in exercising and operating in the joint context.' Air Marshal Hupfeld supports Houston's opinion and suggests that during this period a lack of joint experience could have led to a commensurate reduction in the organisational priority given to joint enabling capabilities. However, he believes that the same observation is no longer valid for the current generation of air combat pilots.

Hupfeld describes the important link between the operational employment of air combat and the increasing priority the organisation placed on joint integration. He indicates that, in the 1980s when Air Combat Group (ACG) exercised with Army, they were not particularly integrated and were not capable of creating a true joint effect. Hupfeld suggests that while ACG were aware that they needed to be more integrated, it was a slow evolution. He indicates that the organisational level of priority given to joint integration changed 'as soon as they had a clear operational need, because it helped them to design structures and invest in future capability.'³⁷⁹ He suggests that ACG's evolution towards greater joint integration may have still occurred without an immediate operational need, but it potentially would have had less immediate priority.

Both Houston and Hupfeld suggest there is a strong correlation between the air combat capability gaining increased joint experience and a commensurate increase in organisational focus on joint enabling capabilities and integration. This link should not be particularly surprising as it follows the patterns already identified in this chapter. The organisational behavioural and cultural issues that create a focus on core Air Force capabilities within aircrew also apply to air combat pilots and, to a certain extent, the propensity to heavily employ air combat pilots in key leadership roles has the potential to exacerbate some of the stove-piping issues.

Group Captain Stothart explains that because air combat pilots filled a large number of RAAF leadership roles, this created a significant upwards 'pull' in a candidate pool that has a limited number of available and suitable officers. This in turn meant that air combat pilots destined for key leadership roles were promoted quickly and generally had limited time in each officer rank. This career compression means that, even in comparison to other pilots, air combat pilots normally have extremely limited opportunities to broaden their Defence experience outside of the air combat or Air Force environment. In conjunction with this compressed career progression, Air Marshal Brown suggests that talented individuals are likely to remain within ACG because of the high-risk nature of air combat operations, and that 'Air Force leaders will normally use high performing officers in the jobs that they think are the highest risk, and joint jobs are not normally the ones associated with risk.' Air Commodore Ehlers suggests that when

³⁷⁸ Air Chief Marshal Sir Angus Houston AK AFC (Retd), Interview, 20 June 2017

³⁷⁹ Air Marshal Mel Hupfeld AO DSC (Retd), Interview, 6 July 2017

³⁸⁰ Air Marshal Geoff Brown AO (Retd), Interview, 16 May 17

you compare experience across the FEGs, air combat pilots tend to have less joint exposure than their air mobility and maritime counterparts because they tend not to deal with joint 'customers' on a daily basis.

Within the RAAF's most senior leadership group there are a number of strong cultural and behavioural factors that can create a focus on core Air Force capabilities, and in particular on air combat. The majority of these factors are exactly the same as those experienced by other aircrew members of the RAAF, but they gain an increased level of importance because the air combat tribe are Air Force's most senior leaders, responsible for setting the organisational attitudes and values towards joint.

The prioritisation of force generation, the specialist nature of RAAF training, the lack of value placed on joint positions and an air combat focused leadership are enabling aspects of RAAF culture that all have a level of interconnectedness with the organisation's behaviour and structure. This makes their pervasiveness easier to identify and describe. The remaining two aspects – the cultural symbology of aircraft and the role of education – have a more subtle influence because they do not have those direct ties to specific organisational behaviour or structure. While these aspects also add to the perpetuation of an independent focus, their influence is more indirect and harder to describe because they are either more symbolic in nature or relate heavily to organisational attitudes.

4.17 The cultural symbology of aircraft

Within organisational culture theory there is a significant amount of literature devoted to the importance of symbols. Alvesson defines a symbol as a 'kind of action or a material phenomenon – that stands for something else and/or something more than the object itself.'381 Andrew Brown provides a similar definition, suggesting that symbols are objects that 'signify something wider than themselves, and which have a meaning for an individual or a group.'382 Jans believes that each of the Services has a core element of professional identity which is the feature of organisational activity that attracts and holds the attention of professionals at the individual level. Jans suggests that this identity shapes the images that professionals in each Service have of their own organisational milieu and its features. He points out that for the RAAF this image is the aircraft: 'the pride of association is with the machine, and often with particular machines (fighters, jet bombers etc), as much as or more than with the institution itself.'383 Within the RAAF, and in most modern air forces, the aircraft has become a symbol for the organisation's devotion to the pursuit of technology.

³⁸¹ Mats Alvesson, Understanding organisational culture, p. 5

³⁸² Andrew Brown, Organisational culture, p. 18

³⁸³ Nick Jans, The real C-cubed: culture, careers and climate and how they affect capability, p. 124

Carl Builder describes a similar fascination within the USAF and portrays air forces' obsession with technology as almost a religious experience, where air force 'worships at the altar of technology.'384 Builder believes that air forces created this focus on technology as a method of maintaining independence. While Builder understands that this focus has strong historical influences, he cautions against allowing this cultural influence to shift the organisation's focus from the application of air power to 'a devotion to the symbols or means of air power, to the airplanes themselves.'385 Builder's primary concern is that a cultural commitment to technological superiority can become an end in itself in which aircraft or systems, rather than missions, become the primary focus.³⁸⁶

This propensity to prioritise the continual updating of preferred weapon systems was identified in Edward Luttwak's article 'Platformitis'. Though not specifically aimed at a lack of focus on jointery, Luttwak argued that there is a dearth of true innovation with the American forces because the composition of those forces is 'an alliance of proudly separate services, each with its own traditions, institutional culture, career paths and – most important – iconic weapons.'387 These iconic weapons become integrally linked to the organisation's cultural identity, and this implies that a Service will spend its share of the resources 'enhancing its own military role, and its own identity, by expensively updating the weapons traditionally associated with it.'388 Some platforms become so entrenched within a military organisation's culture that when it comes to replacing them, the organisation will simply look for an upgraded version, rather than consider alternative ways of creating the same effect. Platforms can become part of an organisation's identity and create a significant cultural influence.

Perhaps one of the best ways to demonstrate how much the RAAF uses the aircraft as a symbol for the organisation's pursuit of technology is to review the covers of recent strategic documents. As can be seen in Figure 1 an organisational preference exists to use aircraft as a form of organisational identity on official documents. Even the document designed to detail the RAAF's visual identity guidelines proudly displays an aircraft on the cover. The RAAF consistently uses aircraft as its primary symbol because they are part of the organisation's identity and they proudly represent the 'cutting edge' technology it employs and desires.

³⁸⁴ Carl H Builder, The masks of war: American military styles in strategy and analysis, p. 19

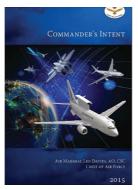
³⁸⁵ Carl H Builder, *The Icarus syndrome: the role of air power theory in the evolution and fate of the U.S. Air Force*, Transaction Publishers, New Brunswick, NJ, 1994, p. 151

³⁸⁶ Ibid., p.6

³⁸⁷ Edward Luttwak, 'Platformitis', JohnShaplin, 02 December 2016, viewed May 2017, http://johnshaplin.blogspot.com.au/2016/12/platformitis-by-edward-luttwak.html

³⁸⁸ Ibid.







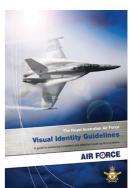


Figure 1: Cover shots from RAAF strategic documents

Builder provides another explanation as to why air force leaders prioritise the pursuit of the latest aircraft technology: 'in measuring itself, the air force is likely to speak first of the kind and quality of its aircraft.' It is not the quality of the aircraft that is important, it is also the type, or role, of the aircraft that air forces believe creates status. Jans agrees that for the RAAF, the 'aerodynamic performance and technological quality of its aircraft are more important than mere numbers: better to have a few aircraft of high quality than many that are more mundane.' 390

A practical example of an air force measuring its status based on the type of aircraft it operates comes from the demise of the Royal New Zealand Air Force's air combat capability. In May 2001, the New Zealand Government decided to remove the air combat capability from the RNZAF by cancelling the purchase of F-16 Falcons due to replace ageing A-4 Skyhawks. The RNZAF Chief of Air Force at the time, Air Vice-Marshal John Hamilton, acknowledged the deep disappointment that the decision created among his serving members. Hamilton said that the loss of its fighter jets had cracked the credibility of New Zealand's air force and seriously compromised its ability to operate its remaining planes, adding that the government's decision to close the combat wings had severely dented the force's public image.³⁹¹

Kourelakos provides a more practical reason why the RAAF focuses on the pursuit of technology by suggesting that it is an organisational priority to remain integrated with the USAF. For the RAAF the majority of recent deployments, and the most likely deployments in the future, have been as part of a coalition with American forces, so this requirement to remain interoperable seems eminently sensible. Kourelakos did explain that there was also a hidden desire for the RAAF to remain integrated with the Americans because of the status it affords the organisation. Failure

³⁸⁹ Carl H Builder, The masks of war: American military styles in strategy and analysis, p. 21

³⁹⁰ Nick Jans, The real C-cubed: culture, careers and climate and how they affect capability, p. 124

³⁹¹ AP Worldstream, 'New Zealand Air Force threatened by dwindling staff after losing fighter jets,' Associated Press, 13 June 2002, viewed May 2017, http://www.highbeam.com/doc/1P1-53588588.html

to remain integrated with the Americans would see the RAAF 'out of the main club,' which in turn could result in it being considered a 'second tier air force.' ³⁹²

Air Marshal Brown strongly supports the organisational imperative placed on the pursuance of technology. He suggests that the most recent example of how important technology is came in 1991 when the government was considering deploying air combat aircraft to the first Gulf War. The RAAF's F-111s and FA-18s could not be considered for deployment because technological deficiencies in areas such as self-protection measures meant that there would be an elevated risk operating in a hostile environment. Brown, and the wider air combat community, believed that the RAAF had not met the government's requirements and vowed not to allow that to happen again. He believes that the RAAF should make no apologies for wanting to keep up to date; it is a necessity to 'be able to do the job, if you do not have the latest upgrade you become a liability for the team. It is one of the reasons that Air Force was created, to manage a high technology operation.'³⁹³

For the RAAF, aircraft are not simply a vehicle to apply air power. Within the Air Force they hold a privileged place because they are part of the organisation's identity and symbols of the priority placed on the continual pursuit of technological advances. That cultural desire has its origins in historical lessons, but it remains a contemporary priority because of a practical and status-related need to remain integrated with the USAF. In unison all these factors create a cultural preference within the RAAF to prioritise the technological update of its platforms. This cultural predilection is yet another reason why the RAAF may choose to prioritise Air Force requirements over the need to support joint capabilities or integration.

4.18 The role of education

The final cultural aspect to be discussed is the role education plays in maintaining an internal or independent focus. Education should be considered a relevant influence on culture for two very important reasons. Firstly, higher education could provide the opportunity for RAAF leadership to place their considerable knowledge of air power in a wider joint or national context, which in turn could mitigate the independent tendencies created by the FEGs. Therefore, it is important to understand the priority given to a secular education. Secondly, the internal air power education provided by the RAAF acts as a form of cultural socialisation process to reinforce institutional beliefs, so it will be enlightening to understand the focus of that education.

An Australian Strategic Policy Institute report titled 'Educating for the profession of arms in Australia' argued that professional military education 'is an essential contributor to Australia's military capability. Without educated people, the most powerful weapon platforms, the

³⁹² Air Commodore William Kourelakos (Retd), Interview, 18 April 2017

³⁹³ Air Marshal Geoff Brown AO (Retd), Interview, 16 May 2017

most intelligent munitions and the most rapid communications systems are of little value.'394 Unfortunately, the leadership of the RAAF has historically not placed any significant value on the importance of higher education. Air Marshal Funnell describes how the predominance of pilot leadership created an organisational culture that valued operational prowess above all else. Little priority was placed on creating strategic thinkers or encouraging academic pursuits. The technological nature of Air Force operations emphasised practice rather than the thinking that goes behind it. Senior Air Force officers prided themselves on being practical men. In a way, they derided education.'395

Funnell's theme that the RAAF has a history of valuing 'doing' more than 'thinking' has been supported by a number of other writers. Coulthard-Clark wrote that in the early years of the RAAF there was almost anti-intellectualism within the organisation that 'valued little beyond flying ability.'396 Stephens said that the failure to create a comprehensive understanding of air power theory within the RAAF was due to the lack of significance placed on intellectual pursuits or strategic thinking.'397 Sanu Kainikara provides two reasons why aviators tend not to value higher education. Firstly, the transition 'from "doing" to "thinking" is normally difficult for all military personnel, but particularly so for airmen whose comfort zone is normally at the tactical and operational levels.' Secondly, this transition 'takes the individual away from experience and competence in specific jobs, as well as an orderly and controlled training and career progression, to the realm of self-education and development.'398

Without wanting to overstate the importance of higher education in influencing the RAAF's understanding of joint capabilities, the propensity for aviators to concentrate on 'doing' rather than 'thinking' magnifies the cultural effects of the insular focus created within the FEGs. Higher education creates the opportunity for an individual to more clearly understand the RAAF's role within the context of the larger joint organisation. A previous Chief of Air Force, Air Marshal Gavin (Leo) Davies, lamented the lack of higher education in the senior ranks of the RAAF by stating that too often officers have arrived in senior engagement roles without having had the opportunity to reflect on their accumulated knowledge of air power and how to 'hone it for use with best effect.' Higher education is an opportunity for the leadership of the RAAF to mitigate the effects of a narrow FEG-based career that has provided them minimal joint or strategic exposure. Unfortunately, that has not been seen as a priority by the organisation which,

³⁹⁴ Hugh Smith and Anthony Bergin, 'Educating for the profession of arms in Australia', *Australian Strategic Policy Institute Special Report*, issue 48, August 2012, p. 5

³⁹⁵ Official Air Force History interview with Air Marshal Ray Funnell AC (Retd), October 2016

³⁹⁶ Chris Coulthard-Clark, The third brother: the Royal Australian Air Force 1921-1939, p. 446

³⁹⁷ Alan Stephens, Power plus attitude: ideas, strategy and doctrine in the Royal Australian Air Force 1921–1991, p. 185

³⁹⁸ Sanu Kainikara, 'Professional mastery and air power education', issue 33, Air Power Development Centre, 2012, p. 7

³⁹⁹ Air Marshal Leo Davies, Chief of Air Force, Royal Australian Air Force, 'Keynote Speech', RAAF Air Power Conference, Canberra, 16 March 2016

in turn, increases the likelihood that the organisation's leadership will maintain an inwards organisational focus.

While the RAAF may not have placed a great deal of priority on higher education, since the late 1980s air power education has been an organisational imperative, which is why it has such a strong potential to create a cultural influence. Chapter 3 identified that for a culture to remain pervasive it needs a method of perpetuating its shared aspects with new arrivals to the organisation. While many of these methods are informal, organisations that are seeking to mould or develop their culture use more formal socialisation processes, such as lectures, seminars and case studies. On In line with that theory, the air power education conducted by the RAAF could be considered as a form of cultural socialisation that uses historical examples, in the form of case studies, to emphasise those aspects of air power that it believes are culturally important. Hence understanding what the main focus of air power education is within the RAAF will provide a strong indication of its cultural preferences.

In 2017, air power education within the RAAF was conducted on a number of the initial and distance learning courses, but the primary provider was the Air Power Development Centre (now Air and Space Power Centre) located in Canberra. The air power education provided by the Air Power Development Centre (APDC) was split into three courses: basic, intermediate and advanced. The aim of the basic course was to introduce students to the fundamental concepts of air power. The intermediate course added to that knowledge by reviewing specific historical air campaigns to assess how air power was used and to make links between factual events and air power doctrine. The aim of the advanced course was to enhance the professional knowledge of air power for personnel who have already developed an understanding of its fundamentals.⁴⁰¹ As the advanced course is the top tier of air power education, a review of its course content will provide an insight into which lessons the RAAF wants to prioritise during the socialisation of its workforce. A summary of the topics and key themes presented on the advanced air power course is presented at Table 10.

⁴⁰⁰ Andrew Brown, Organisational culture, pp. 133–134

⁴⁰¹ The aim of each of the air power courses was sourced from the Air Power Development Centre (now Air and Space Power Centre) unclassified web site, viewed May 2017, http://airpower.airforce.gov.au/Contents/Education-And-Courses/46/Education-and-Courses.aspx

Table 10: A summary of the topics and key themes presented on the RAAF's advanced air power $course^{402}$

Seminar title	Key themes from courseware	Key themes from readings
Week 1 Introduction to advanced air power. What is air power?	 The definition and nature of air power. The important components of air power. How air power differs from other forms of combat power. 	 The rapid technological development of air power. The pervasive nature of all elements of air power and its increasing use by all of the armed services. That air power has revolutionised warfare and become the dominant form of military power projection.
Week 2 Learning while fighting 1914–1918	 The lessons learnt about air power during World War I (WWI). What those lessons meant for the future of air power. Did the results of WWI support popular air power theory? 	 That WWI had demonstrated the tactical uses of air power. That WWI had been inconclusive about the results of strategic bombing. That air power in WW1 had been limited by technology and lack of force concentration.
Week 3 Air power theory: from Douhet to Warden	 The effect of classical air power theory on modern air power doctrine. The continuing relevance of classical air power theorists. The link between Clausewitz's general theory of war and air power theory. 	 Guilio Douhet's theory on air power. Billy Mitchell's theory on air power. The link between the theories of strategic bombing used in World War II (WWII) and John Warden's five rings model.
Week 4 The defensive counter air campaign	 The lessons learnt from the Battle of Britain on the importance of control of the air and the defensive counter air (DCA) campaign. The balance between air power's offensive and defensive capabilities. 	 The advantages of air power operating in an offensive manner to create a defensive effect. That the Germans lost the air war because they did not maintain air superiority or conduct a DCA campaign, and concentrated too much on the offensive.

⁴⁰² Information on the contents of the Advanced Air Power Course was sourced from the seminar packages provided by the RAAF's Air Power Development Centre. Information sourced 15 September 2017.

Table 10: A summary of the topics and key themes presented on the RAAF's advanced air power course (cont.)

Key themes from readings
 The contested nature of the results of strategic bombing in WWII. The difference of opinion on the morality of targeting civilians. The effect of technology on the evolution of strategic bombing.
 That Japan's technical and industrial inferiority contributed to its defeat. That Japan was unable to balance the offensive and defensive requirements of air power. That Japan failed to create a strategic view of air power.
 That air power in Vietnam was ineffective because political considerations limited its use but became more effective when those limitations were reduced. That air power has limitations when it used against an unsuitable target set.
 That the ability of the air campaign to create a decisive strategic effect will depend on the objective of the conflict and the nature of adversary. That the air campaign can be more effective when it is centrally managed to create a unity of effort.

Table 10: A summary of the topics and key themes presented on the RAAF's advanced air power course (cont.)

Seminar title	Key themes from courseware	Key themes from readings
Week 9 Air power and the Gulf War	 That the Gulf War demonstrated that air power has the potential to achieve a decisive victory alone. That the decisiveness of air power in the Gulf War was created by the nature of the opponent. 	 That new technologies and employment methods made the Gulf War an evolution in the effectiveness of air power. That air power needs to be used to its full extent, and that political innervation will limit its effectiveness. That Warden's five rings theory is too simplistic because systems analysis cannot allow for context. That the Gulf War corrected the misuse of air power that occurred in Vietnam.
Week 10 Air power: necessary and sufficient	• That the nature of the conflicts after the first Gulf War demonstrates that air power continues to have limitations on its ability to be strategically decisive.	 That conflict in Kosovo demonstrated that air power has some limitations in its application but it can create a decisive strategic effect. That Kosovo demonstrated that air power is becoming the strategic weapon of first choice. That remaining an effective fighting partner with the US requires investment in technology.
Week 11 Targeting and international law	 That international law will limit the use of air power in a strategic air campaign. 	 That the Laws of Armed Conflict and international norms have significantly affected the ability of air power to bomb certain target sets. That the air campaign needs to take into account the legal restrictions placed on targeting.

Table 10: A summary of the topics and key themes presented on the RAAF's advanced air power course (cont.)

Seminar title	Key themes from courseware	Key themes from readings
Week 12 Air power and irregular warfare	 That irregular warfare it not naturally suited to the strengths of air power that has been designed for conventional operations. That continued operations in irregular warfare would require air power to find innovative solutions. 	 That it is the most sensible option to structure the Air Force for highend conventional warfare and then adapt that structure to meet the needs of low-end irregular warfare. That air power is still relevant in irregular warfare. That the RAAF has limitations on its ability to fight terrorism but that it should not amend its force structure dramatically to rectify this limitation.
Week 13 The future of air power	 That continuing developments in technology could change the nature of air power. That an unpredictable future requires air power to remain flexible in its application and structure. 	 That new technology, the nature of conflict and the effects of the information require the continued re-evaluation of air power theory, the increased integration of all military forces and a constant review of the force structure air forces maintain.

While the advanced air power course was balanced in its views on both air power theory and application, the summary at Table 10 clearly demonstrates that the course was focused on the independent capabilities of air power and core Air Force roles. The primary theme of the course seems to revolve around an ongoing debate on the ability of air power to be strategically decisive, and comparing that ability to the original claims made by the classical air power theorists. Strategic bombing or attack is the main theme for at least eight of the 13 seminars, which is an inordinate amount of focus for one particular aspect of air power. The other two major themes appear to be the importance of control of the air and the operational efficiency created by unity of command, both of which have an extremely independent flavour. There is a complete omission of any major themes involving air power's importance in the joint context. While several of the seminars did hint at the ability of air power to make a significant impact on the joint fight, this theme is not explored in any depth. Even the historical case studies where air power played a significant role in joint operations, such as in World War II, the Vietnam War and the Gulf War, do not emphasise the importance or the successes achieved in this joint role. Within the RAAF's advanced air power course the importance of the RAAF's contribution to the joint fight is barely mentioned.

There is any number of reasons why the RAAF has chosen to prioritise the independent aspects of air power within its professional military education, but perhaps the most plausible answer

relates back to one of the behaviours identified in bureaucratic management theory. 403 Within the RAAF, air power education is not just about increasing professional mastery, it is also designed to create air power advocates who can assist in maintaining the organisation's importance. By generating a workforce that is able to coherently describe the contribution that air power can make to national security, the RAAF increases its opportunities to create organisational and political influence.

Air Marshal Davies identified this organisational need in his Commanders intent. One of his six top priorities for the RAAF was to 'fully understand, and be able to cogently explain, as an organisation and individuals, air power and its vital role in national security and the joint team.'404 When describing his priority in more depth, Davies stresses the importance of a joint context, but his description of what makes air power unique could have come directly from his predecessors of the 1920s. Davies states that 'air power can respond more rapidly to most contingencies than any other form of military or national power, has global reach, is unimpeded by land barriers and can apply lethal and non-lethal force at long range with great precision.'405 Appreciating that air power education has a role in developing organisational advocates, it is not particularly startling that there is a trend for that education to focus on the aspects that the RAAF believes make air power, and therefore the organisation, more important.

The RAAF chooses to prioritise the independent aspects of air power within its education. Air power education within the RAAF is a formal socialisation process for its organisational culture, which is designed to transfer those aspects of its history and vision that it considers a priority. This socialisation process could have been an opportunity to reiterate the importance of air power within the joint context and to mitigate the cultural tendency of aviators to remain focused on the independent capabilities of air power. Unfortunately, that opportunity has not been realised, and instead of mitigating the effects of an internal Air Force focus, it ensures that those members of the RAAF undertaking air power education become more transfixed on the independent aspects of air power.

4.19 Summary

When assigning any form of attribution for behaviour and decisions to organisational culture, it is important to remember that as an area of study it remains a highly contested paradigm and therefore any conclusions need to be considered circumspectly. Rather than drawing concrete observations, the discussion should look for behavioural clues that identify cultural characteristics and priorities. The purpose of this chapter was to identify those aspects of RAAF culture that could influence the creation of an internal focus on core Air Force capacities, which

⁴⁰³ See Chapter 3.2

⁴⁰⁴ Royal Australian Air Force, *Chief of Air Force Commander's intent*, Royal Australian Air Force, Canberra, ACT, 2015, p. 19

⁴⁰⁵ Ibid.

in turn could lead to a commensurate lack of focus on the requirements of joint integration and enabling capabilities.

There are a number of key cultural aspects within the RAAF that create the potential for the leaders of the organisation to maintain an internal Air Force focus. While these factors were presented in a linear fashion within the chapter, it is important to remember that their influence is created in an interconnected not individual fashion. The influence of the RAAF's culture on the organisation's attitude to jointness should be seen as an amalgamation of all the factors discussed, with the ability of certain factors to influence individual members varying greatly, depending on the nature of their organisational experience. When discussing an entire organisation's cultural preferences, it is difficult to avoid making generalisations, so it is important to remember that individuals may display all, some or none of the characteristics discussed.

Within each of the ADF's three Services, joint enabling capability will always have to compete with internal Service capabilities for priority. For joint capability to be given a priority it must be valued above the Service capability, and that means an organisation's culture has the opportunity to influence that value decision. If the RAAF truly wants to ensure that it applies the appropriate amount of priority to joint capability and integration, then identifying the aspects of its own internal culture that pull it away from that aim should remain an organisational priority. Perhaps the best way to summarise an extremely complex cultural picture is to break it into three distinct layers that have aspects within them that create similar influences. The effect of these layers should be considered as cumulative, with the effects of the second layer adding to those of the first, and then the third layer adding to both of those.

The first layer can be characterised as the organisation-wide aspects of culture that create an internal focus on core Air Force capabilities. These aspects should be considered as a cultural setting that influence members of the RAAF to consider the independent or war-winning aspects of air power as the organisational priority. This described how a shared belief was created that the existence of the RAAF is intrinsically linked to its ability to undertake the independent roles of strike and control of the air. The reason why this cultural aspect has been such a central focus of this work is due to the strength of the cultural influences created by the organisation's early history and the source of its vision.

Historically, aviators within the RAAF have believed that the organisation exists because it can 'reach out and strike' the enemy in a way that creates strategic effect, and that it can reduce the enemy's capability to do the same in return. This shared belief that created the organisation's raison d'etre was based on the theoretical underpinnings of air power and the arguments used to secure and maintain organisational independence. This does not mean that the RAAF does not willingly accept the other inherently joint air power roles it undertakes; it merely results in strike and control of the air having a special cultural significance. This elevated importance remains evident today, with the RAAF's most senior leaders being selected from within these roles, and with the organisation's air power education continuing to socialise their elevated status.

Traditionally, the completion of these two roles has not required the RAAF to interact with their joint Service partners in any significant way. That does not mean that these roles are not essential to the joint fight, but Air Force normally does not need support from, or a significant amount of integration with, the other Services to complete them. To undertake the organisation's preferred roles of strike and control of the air does not require the RAAF to value joint enabling capabilities or integration because, for the most part, they can be achieved by maintaining an internal Air Force focus.

While it is not necessarily connected to the air power roles of strike and control of the air, at the organisational layer of influence it is important to point out how much the pursuit of technology pervades the RAAF. It would be easy to characterise this pursuit as a practical and sensible approach to ensuring that aviation platforms do not become operationally obsolete, but it is culturally more influential than that. In striving to be the most potent Air Force possible, the RAAF will constantly pursue the next generation of technology to ensure that it remains cutting edge and that it maintains its status as a 'first world' Air Force. This constant desire to have the best means that there is strong potential for resources to be diverted away from joint capability to pursue this cultural preference,

The second layer, which is a combination of both cultural and behavioural aspects, is those factors that create an organisational priority within the RAAF's future leaders to focus on core Air Force capability, also referred to as 'stove-piping'. The organisations given the responsibility for creating Air Force capability are the FEGs. The main task of the FEGs is to undertake force generation, which prepares aviators to undertake their primary Air Force role. Though the majority of those Air Force roles are inherently joint in nature, training for them does not necessarily require the FEGs to interact with the other Services inside a joint context. Even if the RAAF believed it needed to undertake its force generation training within a joint context, the limited number of joint training opportunities available within the ADF makes this an unrealistic goal.

The FEGs are not specifically required to maintain joint enabling and integration capabilities at a required level because the strategic guidance within the CAFPD does not contain this level of detail. To comply with strategic direction the FEGs need only to complete their basic force generation tasks. This means that FEG leaders will prioritise force generation tasks because their performance is measured against them. In this construct, joint capabilities will only be given priority if they are integral to force generation, or if individual leaders decide that they are an operational necessity. For leaders within the FEGs to understand the necessity of joint enabling or integration capabilities, they require a level of familiarity with those capabilities, which is primarily achieved through exposure to the joint context. Most leaders within FEGs do not get exposure to the joint context and are unlikely to prioritise joint capabilities.

The third layer is those aspects of RAAF culture that continue to create a focus on core Air Force capabilities because they reduce the likelihood of Air Force leaders gaining exposure to joint context. Air Force officers do not normally get joint experience because the RAAF places an extremely high value on 'specialisation'. It wants its air power capabilities to be potent and to be operated safely; and to achieve this, operators must complete a long period of specialist technical

training. That normally results in aircrew being employed within a single FEG for the majority of their career. This means that specialist aircrew officers only receive limited exposure to the joint context during their formative years, because their experience is limited to opportunities they can gain during force generation.

If the future leaders of the RAAF are unlikely to become familiar with the necessity of joint enabling capabilities during their period of specialist aircrew training, then providing alternative opportunities becomes essential. One of the best opportunities to gain a broader joint context is employment in a joint position. Unfortunately, the RAAF does not place any real organisational value on joint positions, so individuals avoid them because they believe that career progress is linked to remaining either inside their specialisation or in an Air Force position directly related to an aviation capability. Joint or further education might be another way of gaining a broader joint perspective, but once again the RAAF places very little value on these activities and provides no incentive for an individual to complete them. The preference for specialisation means that the RAAF will have outstanding weapons system operators, but those individuals may not fully understand how they are enabled by the joint team, and what they are required to do to enable their joint Service partners.

It is difficult to be critical of Air Force for generating an organisation and culture that has the primary aim of creating the most professional and potent air power capabilities that it can. With most of those capabilities being inherently joint it would be difficult to sustain an argument that the RAAF was not meeting its joint responsibilities. Unfortunately, and as Chapter 2 demonstrated, there have been circumstances where it failed to apply the appropriate level of priority to capabilities that enabled joint operations. In pursuing its goal of being the best Air Force it can be, the RAAF has not necessarily created the organisational structures or culture that ensured it had enough familiarity with the evolving joint context to consistently place the appropriate level of priority on the capabilities that enable its support to the other Services.

While all the cultural factors discussed in the layers have the ability to influence an RAAF leader to prioritise core Air Force capabilities, none of them actually creates a culture against jointness within the RAAF. While a focus on core Air Force capabilities may reduce the priority given to joint enabling capabilities, that effect is mostly created as a by-product of an action to achieve other organisational priorities. The intent behind the identified cultural aspects is important because, if the RAAF actually had a basic assumption or shared belief that joint was not important, then that aspect of culture would be incredibly difficult to change. The fact that the lack of priority provided to joint enabling capabilities can be considered a by-product of certain aspects of RAAF culture increases the possibility that it can be successfully changed.

While the shared belief in the importance of the independent aspects of air power shapes the organisational priority given to joint capability, the second shared belief – the efficiency of having only one provider of air power – affects the RAAF's relationship with joint in a completely

⁴⁰⁶ Andrew Brown, Organisational culture, pp. 21-23

Creating a potent joint force

different manner. The efficiency belief makes it more likely that the organisation will enter into conflict with the other Services to protect the belief, which in turn reduces cooperation at the strategic level. As Chapter 2 noted, one of the main reasons why the RAAF may have applied an inappropriate priority to an enabling joint capability is because of ineffective communication between the Services at the strategic level. Unfortunately, the shared belief is but one of the reasons why the Air Force may enter into conflict at the strategic level. The following chapter focuses on the strategic relationship between the Services and what that means for the RAAF's ability to prioritise joint enabling capabilities.

5

The primacy of Service domains

In the recent past, each of the Services within the ADF has made strong statements about the continuing importance of jointness. Vice Admiral Tim Barrett, a previous Chief of Navy, said that the ADF could no longer consider itself as just a joint force; it needed to be an 'integrated force, joined at the hip as we deliver what the government has mandated for us.'⁴⁰⁷ General Angus Campbell, when he was Chief of Army, wrote to his senior leadership group and emphasised 'the need to think, plan and structure to enable joint effects' and that the 'interests of Army and the other Services are necessarily secondary to this reality.'⁴⁰⁸ Air Marshal Leo Davies, a previous Chief of Air Force, said that 'jointness is a force-design driver' and that it 'requires a fundamental step-change in our approach to war-fighting as well as to acquisition, sustainment and how we shape ourselves to meet this joint intent.'⁴⁰⁹

With an undisputed support for jointness from the Service Chiefs, it is difficult to comprehend why there would be any historical trend towards ineffective cooperation between the Services on joint enabling capabilities and integration. When considering potential reasons why this apparent disconnect exists, the first thing to remember is that the ADF's understanding of joint is evolutionary in nature. The aforementioned statements reflect a reasonably modern understanding of the nature and essentiality of joint cooperation and integration. It may not have received the same priority in the past because previous iterations did not place a high degree of emphasis on achieving a joint force designed for greater integration.

While there may be a greater emphasis on designing jointness in today's ADF, it would be disingenuous to suggest that the importance of cooperation and integration between the Services has not been considered an important aspect of joint warfare until now. Much of the ineffective inter-service communication identified in Chapter 2 occurred within the last 25 years when the ADF's understanding of joint had evolved sufficiently to make it obvious that cooperation and integration were essential for effective joint operations. Poor strategic cooperation resulted in the other Services losing their opportunity to influence the priority of Air Force's capability decisions which, in turn, increased the likelihood of those choices being made primarily on internal organisational preferences. If the Services understand the imperative for joint cooperation and

⁴⁰⁷ Vice Admiral Tim Barrett, Chief of Navy, Royal Australian Navy, 'Integration design requirements for Navy's future systems and ships', Chief of Navy address to the Sir Richard Williams Foundation Seminar, National Gallery of Australia, 10 August 2016

⁴⁰⁸ General Angus Campbell, Letter to the Army Senior Leadership Group, OCA/OUT/2016/ R27117625, 1 September 2016

⁴⁰⁹ Air Marshal Leo Davies, Chief of Air Force, Royal Australian Air Force, 'A 10-year plan – an Air Force strategy,' ASPI National Security Dinner, 19 July 2016

still choose not to place an organisational priority on completing it, then it becomes vital to understand why this is occurring.

To provide an explanation of why the Services may not effectively communicate on joint capability at the strategic level this chapter focuses on three primary areas. The first area of concern deals with the role of the Service Chiefs and their respective headquarters. As part of a larger bureaucratic Defence organisation, the Services exist as distinct areas of war-fighting domain specialisation that need to compete for both influence and relevance. This chapter discusses how acting as champions of their environmental domain has the potential to influence the level of internal focus they maintain. The second area of attention is associated with the structure of joint within the ADF. The individual Services existed well before jointness became an organisational requirement. Understanding how joint was adopted and what organisational structures were created during its implementation will provide an insight into the individual Service headquarters' relationship with joint. The last area to be discussed is the effect that competition and conflict has on the willingness of the Services to communicate. To highlight the potential impacts of conflict, two historic case studies of inter-service rivalry will be presented. In combination, these three areas of focus will reveal what aspects of the Service's organisational behaviour reduce the effectiveness of inter-service communication and cooperation.

5.1 Being the best Service

In Chapter 4 it was identified that the RAAF had an organisational preference to focus on core Air Force capabilities created by a complex mix of cultural beliefs and organisational behaviour. One area that was not discussed is the effect that strategic organisational behaviour has on maintaining a preference to focus on Service-based, rather than joint, capabilities. A fundamental question that needs to be answered is whether the Services believe their primary role is to create either the best Navy, Army or Air Force they can, or the most effective maritime, land or air element of a larger joint force. While some would suggest that there is very little variance in those two roles, in reality there is an important, albeit subtle, difference.

If the Services think their role is to create the best Navy, Army or Air Force, then their primary focus, and therefore priority for resource allocation, will be on creating Service-based capability. Alternatively, if they perceive their role as the creation of the most effective maritime, land or air element of a larger joint force, then greater investment would be made in joint capabilities that enable effective force integration. Air Marshal Davies described the different emphasis when he suggested that the RAAF needed to move from a premise of knowing that they are 'able to do joint,' to an understanding that they can only prevail by 'fighting jointly'. Building an Air Force whose role is to contribute to the joint fight is a different mindset to building an Air Force that

⁴¹⁰ Air Marshal Leo Davies, 'A 10-year plan – an Air Force strategy', ASPI National Security Dinner, 19 July 2016

only fights jointly. Understanding which role, and therefore which mindset, gets priority within the ADF would help explain the priority placed on cooperation over joint capabilities.

5.2 Building the optimum force

The Honourable Kim Beazley, who was the Minister for Defence from 1984 to 1990, firmly believes that the Services each maintain a focus on building the best possible individual force because of an inherent desire within military professionals to prevail within their selected environments. Beazley explained his belief in the following manner:

There has always been a basic problem with jointery. When you train as a soldier, sailor or airman, you are trained within a narrow band of professionalism and come to understand, better than you understand anything else, what goes into making a good and effective soldier, sailor or airman. So, there is a professional discipline that has to infect your mind, because you internalise your capability to expend your life in the most effective way that you can. Even though you can intellectually accept the idea that you are part of a cross-service cohort. In your heart of hearts and in your gut, you know what does and does not serve your capacity to hone your professionalism. It takes it too far to suggest that the belief is based on thinking you are the most effective method of conducting warfare, it is about understanding that you know what you need to be effective in warfare. If you know what your training needs to be, if you know what your focus has to be, then to think about a whole range of other things, including jointery, does not come naturally.⁴¹¹

The Services' focus on the pursuit of domain excellence can be for one very practical reason, and that is because they 'want the most up-to-date equipment so that, if they ever come into combat, they have the best chance.'⁴¹² Beazley went further to suggest that while this pursuit may appear to be a self-centred position, he believed that this drive was critical for the defence of the country because we need Service personnel to demonstrate ultimate professionalism. Unfortunately, this drive to create the best possible Navy, Army and Air Force creates a downside where 'most midlevel and even many senior officers had been inclined to think tribally, if not in terms of giving their Service an advantage, then at least by ensuring that it would not be disadvantaged.'⁴¹³

The views of previous Service chiefs also support the idea that a Service's principal goal is the pursuit of domain excellence. Air Marshal Evans said that 'at the strategic level, a focus on ensuring that your Service got the capabilities you believe it needed, took priority over joint capability.'414 Air Chief Marshal Sir Angus Houston said that, while it was not necessarily at the expense of joint

⁴¹¹ The Honourable Kim Beazley AC, Interview, 23 May 2017

⁴¹² Eric Andrews, *The Australian centenary history of Defence, volume 5, The Department of Defence*, p. 227

⁴¹³ Nicholas Jans, The Chiefs: a study of strategic leadership, p. 13

⁴¹⁴ Air Marshal David Evans AC DSO AFC (Retd), Interview, 1 May 2017

enabling capabilities, as 'Chief of Air Force you were focused on what Air Force needed to do the job, which means that a chief needs to advocate for the capability.'415 Air Marshal Geoff Brown said that he had a 'simple definition' of his primary role and that was to 'make sure that the Air Force at the time was fit for service, fit to meet government requirements, and the bigger role was to make sure that it was fit to meet future government requirements as well.'416

Vice Admiral Ray Griggs suggests that it is also 'possible for a Service chief to be drawn away from the joint picture if you have a bunch of crises that require a lot of attention, and there are no pressing operational matters that drag your focus on to it.'417 Griggs described how when he was Chief of Navy he became absorbed with fixing an inordinate number of Navy issues such as the serviceability of the amphibious ship capability and the findings of the Rizzo review into ship repair and management practices.⁴¹⁸ His priority became fixing Navy capability issues and rebuilding the government's trust in Navy and this turned his focus 'inwards a bit'.

Griggs compared his situation to that of Air Marshal Brown, who was Chief of Air Force at the same time, by observing that they had a different set of challenges that meant that Brown was able to spend more time 'promoting his Service'. He never felt that Brown's advocacy was at 'Navy's expense', but as 'Chief of Air Force he prosecuted Air Force's interest above anything else'.

Unfortunately, the tendency of the Services to maintain a domain focus is too often portrayed as being Machiavellian in nature, with the suggestion that the Services are doing it on purpose to surreptitiously achieve organisational outcomes. This belief has become widespread within Defence and maintaining a domain focus has become politically incorrect within the ADF, because it somehow implies a selfish outlook that is against the team-player philosophy of jointness.⁴¹⁹

What this diagnosis ignores is that the Services' actions are completely in line with bureaucratic management theory. The ADF has created the Services as sub-groups of specialisations to manage the complexity associated with each of their war-fighting domains. While this specialisation has the positive effect of creating domain excellence within each of the Services, it also has the potential downside of creating an inwardly focused organisation. In simple terms, the more emphasis the Services place on domain excellence, the more focus it is likely to receive within the respective Service headquarters.

Air Vice-Marshal Neil Hart supports this explanation and believes that the Service's inwards focus is a 'completely understandable behavioural response to the game that has been set up

⁴¹⁵ Air Chief Marshal Sir Angus Houston AK AFC (Retd), Interview, 20 June 2017

⁴¹⁶ Air Marshal Geoff Brown AO (Retd), Interview, 16 May 2017

⁴¹⁷ Vice Admiral Ray Griggs AO CSC (Retd), Interview, 26 May 2017

⁴¹⁸ Paul J Rizzo, *Plan to reform support ship repair and maintenance practices, July 2011*, Australian Government Publishing Service, Canberra, 2011

⁴¹⁹ Alan Stephens, The Australian centenary history of Defence, volume 2, The Royal Australian Air Force, p. 298

within Defence.⁴²⁰ Hart purposely used the term 'game' because he believes it echoes the similarity between the Services' actions within the ADF and non-cooperative game theory.⁴²¹ He believes that by pursuing domain excellence the Services are 'trying to win'. He also suggests that is what the ADF wants them to do because we do not want them operating at the level of the lowest common denominator. Hart does suggest that there is a negative side to this continual pursuit of domain excellence, in that it creates the potential for competition between the Services.

The RAAF, and the other Services, do not communicate effectively on joint capability and integration issues because their primary focus remains the creation of the best domain-specific capabilities. This pursuit of domain excellence is an incredibly powerful force within the Services, but its effects are magnified by another organisational behaviour that is also predicted within bureaucratic management theory. That behaviour is the imperative to generate organisational influence.

5.3 Empires built through influence

In February 1985, Kim Beazley, the then Minister for Defence, commissioned the prominent Defence academic Paul Dibb to write the 'Review of Australia's defence capabilities', which was a report designed to detail the likely strategic threats to Australia and the military force structure required to face those contingencies. With so many of their individual Service capabilities being reviewed, Air Marshal Funnell recalls that the Services 'were doing everything they could to influence Dibb, so that he would positively influence Beazley and allow them to get what they wanted for their Service'. Funnell suggests that the Services were doing a great deal of work 'under the table' to influence Dibb directly. In these circumstances, the 'RAAF was pushing independent Air Force capabilities, albeit within a joint context', and ultimately the Dibb review 'was a competition between Air Force, Army and Navy for influence'.

The actions of the Services during the Dibb review are in line with the expected behaviour detailed within organisation theory. The Services, as bureaucratic organisations, will want to maintain those capabilities or missions they believe make them important and relevant. Sorenson supports that understanding by suggesting that 'organisations tend to give some missions higher priority', normally because 'the organisation came into prominence through particular missions that gained it fame and resources'. To be able to afford the capabilities their domain focus demands, the Services must influence the appropriate decision-makers to commit the required level of

⁴²⁰ Air Vice-Marshal Neil Hart AM (Retd), Interview, 7 July 2017

⁴²¹ David K Levine, 'Economic and game theory: what is game theory?', UCLA website, viewed July 2017, http://levine.sscnet.ucla.edu/general/whatis.htm

⁴²² Eric Andrews, *The Australian centenary history of Defence, volume 5, The Department of Defence*, p. 252

⁴²³ Air Marshal Ray Funnell AC (Retd), Interview, 17 May 2017

⁴²⁴ David S Sorenson, The process and politics of Defence acquisition, p. 93

funding. To do this, the Services will normally champion their domain capabilities or missions to raise their perceived level of importance and relevance.

The Services will seek to create political influence. This is normal within a bureaucratic organisation but for Defence there are downsides to this activity. The primary effect of aggressively pursuing political and organisational influence is that it creates competition between the Services. While competition can affect the quality of the cooperation between the Services, it does have a more subtle and less confrontational consequence in that it inspires the Services to maintain a domain-specific focus. The serious effects of competition will be covered later in this chapter, but it is worth identifying how the quest for influence builds on a pre-existing tendency to focus on domain-specific capabilities.

Alan Stephens suggests that after World War II, the RAAF failed to seize an opportunity to 'publicly articulate Australian air power doctrine'. Stephens believes this failure adversely affected the RAAF:

the dearth of corporate knowledge naturally carried over into the political arena. Given the intensely competitive nature of defence procurement, there can be few more important activities for the Services than fully understanding the intellectual rationale for their existence and explaining that rationale to the widest possible audience.⁴²⁵

Stephens is not the only writer to draw a direct link between the creation of domain-specific doctrine and the ability to create political influence. Huntington describes how the US Services appealed to their officers to become 'public relations conscious' and stressed the general responsibility for military officers to 'enlighten the public on the needs of national security'. Huntington also points out that this enlightenment was always couched 'in terms of putting the Service view across – informing the public of the indispensability of sea, air or land power to national security'. Menhinick provides another Australian example when he described how a previous Chief of Navy, Vice Admiral David Shackleton, called for the Navy to become 'less of a silent Service and be able to articulate its case amongst the many competing pressures that Australia faces as a nation.' 427

Air Marshal Funnell provided a powerful example of how he used air power doctrine to attempt to create political influence. When Funnell was the Service chief, he would regularly send the Minister for Defence, Kim Beazley, copies of the latest air power doctrine because he knew that Beazley was an avid reader. In an interview for this work, Beazley demonstrated that the RAAF has continued that influential relationship with him when he discussed the virtues of Plan Jericho, which is one of the Air Force's recent strategic planning concepts.⁴²⁸

Chapter 4 demonstrated that since the late 1980s the RAAF has placed a great deal of priority on the creation of air power doctrine and the completion of air power education. It also became

⁴²⁵ Alan Stephens, Going solo: the Royal Australian Air Force, 1946–1971, p. 37

⁴²⁶ Samuel P Huntington, 'Inter-service competition and the political roles of armed services,'

The American Political Science Review, vol. 55, March 1961

⁴²⁷ Richard T Menhinick, Sea control and maritime power projection for Australia, p. 79

⁴²⁸ The Honourable Kim Beazley AC, Interview, 23 May 2017

apparent that the priority the RAAF afforded these tasks was in line with Huntington's observations that the Services want their members to be able to act as advocates for their domain-specific capabilities. Within the ADF this need to have a coherent strategic doctrine to advocate domain-specific capabilities is replicated within each of the three Services. In fact, each of the Services follows an almost identical pattern.

Table 11: Service domain-specific doctrine and strategic plans

Document type	Royal Australian Navy	Australian Army	Royal Australian Air Force
Generic domain- specific doctrine	Australian Maritime Doctrine – RAN Doctrine 1	Land Warfare Doctrine 1 – The Fundamentals of Land Power 2017	The Air Power Manual – Australian Air Publication 1000-D
Long-term domain- specific goals and capability priorities	Plan Mercator – Navy Strategy 2036	Army's Future Land Operating Concept	Air Force Strategy 2017–2027
Short-term domain- specific goals and capability priorities	Plan Pelorus	Plan Beersheba	Plan Jericho

As Table 11 shows, each of the Services has a generic domain-specific doctrine that explains the roles, functions and rationale for maritime power, land power and air power respectively. The Services then all have a strategic planning document that details their long-term direction and sets out organisational goals and capability priorities. Finally, the Services all have a short-term planning document that details immediate priorities such as specific capability, personnel or organisational structure issues.

It would be unfair to suggest that these documents only exist to create political influence; on the contrary, the Services should be complimented for having such a coherent suite of strategic documentation. While the Services clearly have an understanding of where their priorities are and what their strategic direction is, the Service-specific nature of this documentation paints a very domain-focused picture. At the strategic level of the ADF there appears to be a Navy plan, an Army plan and an Air Force plan, but there is no guarantee that these plans are aligned or focusing on the same priorities. Perhaps more importantly, there appears to be no strategic joint plan that describes how each of the Service plans will integrate and enable coherent joint operations. Air Vice-Marshal Hart summarised the situation by suggesting that within the Russell Defence precinct 'it appears fine to walk in and say that the Services can have completely different opinions on what they are trying to achieve and what their future purposes may be.'429

⁴²⁹ Air Vice-Marshal Neil Hart AM (Retd), Interview, 7 July 2017

The need to create political influence ensures that Services publish domain-specific doctrine and strategic planning guidance. While there is a genuine need for these documents, their narrow Service and domain-specific focus has the potential to create a commensurate view within the Service headquarters. The role of the Service headquarters is to implement the chief's strategic plan and vision. If both of those documents are heavily domain focused, and worded in a way to highlight the importance of individual Service capabilities, then it can hardly be considered surprising when those organisations maintain an internal Service focus which, in turn, limits the necessity of communication between the Services because their domain-specific plans do not require integration or interaction.

Chapter 4 identified that the RAAF had a cultural propensity to focus on core Air Force capabilities. As part of that discussion, it was highlighted how that original focus was created as a method of justifying the independence of the organisation, and that over time that need for justification was replaced by the more practical requirement of maintaining a level of organisational importance. The need for political influence is a natural extension of that behaviour. The need to frame strategic documentation in a domain-specific manner simply feeds a pre-existing cultural proclivity and has the potential to enable this tendency.

A Service's desire to create the best individual force and its pursuance of political influence are two of the primary drivers behind a focus on domain-specific capabilities. While these drivers have a strong organisational influence on the Services, it is unlikely that they would remain as prominent if there were no other behaviours that enabled or encouraged the internal Service focus to remain. This chapter moves on to describe how that Service domain focus is facilitated through other supporting and enabling behaviours.

5.4 Supporting behaviours

When looking for behaviours that either support the Service headquarters' ability to maintain a focus on individual domain capabilities, or that inhibit their ability to communicate effectively about joint enabling capabilities, perhaps the best place to start is to look at the structural implementation of the joint concept within the ADF. In a manner that echoes the discussion in Chapter 3 on the various ways of viewing organisational culture, a similar choice exists when considering how the Services view jointness. There are at least two potential views that the Services could have of jointness: it could be something that they 'do' (external approach); or something that they 'are' (integrated approach).

The *external approach* would be to treat joint as an adjunct or as a series of activities that occur outside of the Services. In this approach the Services support joint by providing personnel and funding to joint organisations and activities that occur outside of their organisations. The *integrated approach* would be to treat joint as a lens through which all Service activity was viewed, which would then allow joint to become incorporated into the daily business of each of the Service headquarters. To support this view of jointness the Services would have to do more than just provide resources. Joint would be an integral part of how they conduct internal activities and

would require a better understanding of how their internal actions affected their joint partners. The ADF and the Services have historically maintained an external approach to jointness.

5.5 Specialist joint compartments

The Australian Defence Force, as we understand it now, did not come into existence until September 1975, and prior to that date each of the Services had its own department and minister. In 1947 initial steps were taken to create aspects of a joint organisational structure through the creation of the Joint Air/Sea Warfare Committee, the Joint Land/Air Warfare Committee and the School of Land/Air Warfare. These organisations were created to ensure that important joint lessons from World War II were not lost, but by the 1950s their status began to decline and Service support for them started to be withdrawn.

Large-scale implementation of jointness did not occur until the Secretary of the Department of Defence, Sir Arthur Tange, commenced a series of sweeping reforms. In December 1973, a report authored by Tange, titled *Australian Defence: report on the reorganisation of the Defence groups of departments*, was tabled in parliament. The report contained a number of critical reforms that began the ADF's journey towards institutionalising jointness. The first of these was to combine the Departments of Navy, Army and Air into a single Department of Defence.⁴³² The report also recommended creating 'a Chief of Defence Force Staff (CDFS) as a statutory officer in the Department of Defence, responsible direct to the Minister for the command of the Navy, Army and Air Force.'⁴³³

In relation to the Services, the report stated that these changes were designed to create 'a sense of joint endeavour' and 'it would necessarily be directed more towards collective defence policy objectives than to single Service interests.' It also implied that these organisational amendments were necessary to 'eliminate – or mitigate – the relationship of adversaries which has long existed between the Services and the Defence Department.' The report also implied that the Services would not willingly embrace the joint endeavour. The creation of the CDFS was essential because the current 'lack of authority over the three Services could frustrate the aim of more effective central military control of operations and related military activities, and the exercise of greater influence in the development of the Services towards integrated national defence objectives.'

⁴³⁰ Alan Stephens, Going solo: the Royal Australian Air Force, 1946–1971, p. 308

⁴³¹ Ibid., p. 309

⁴³² Sir Arthur Tange, Australian Defence: report on the reorganisation of the Defence groups of departments, Australian Government Publishing Service, Canberra, 1974, p. 4

⁴³³ Ibid., p. 5

⁴³⁴ Ibid., p. 15

⁴³⁵ Ibid., p. 16

⁴³⁶ Ibid., p. 15

The recommendations made by Tange were designed to reduce the independent focus of the Services and create a joint endeavour within the department. To achieve this, Tange recommended creating a joint organisational command structure that sat above and separate from the Services, but he specifically stated that the 'reorganisation would not change the separate identity of the Navy, Army and Air Force.' In line with the *external approach* to jointness, the Services were not required to change how they approached their domain-specific business. They simply had to accept that they were now under joint command. This *external approach* meant 'the Services retained their organisations and staffing structures inside the new department, and therefore their traditional role and ethos.'

Air Vice-Marshal Hart, who spent a significant period implementing Defence's First Principles Review, believes that this *external approach* became the norm within the ADF.⁴³⁹ As the ADF went through various organisational and operational activities and it identified areas of poor performance, the tendency was to solve those issues by implementing an additional joint organisational structure. These joint solutions rarely involved a requirement to increase the level of integration between the Services, instead the solution was to create a 'bespoke new joint thing'. Hart points to the creation of Joint Health and Logistics Commands as an example of this behaviour. Rather than strengthening or consolidating something within the Services, the ADF opted to create independent stand-alone joint commands. This tendency to create joint organisations exists because they are easier to implement than figuring out how to change Service attitudes.

Another example of this behaviour can be found in how the ADF manages operational activities. Vice Admiral Griggs described how that management had been evolutionary in nature, and that each step involved a reducing role for the Service chiefs and their headquarters. 440

Though the ADF was created in 1975, the Services effectively maintained control of operational issues because the Chief of Defence Force⁴⁴¹ did not have any real ability to command operations until Headquarters Australian Defence Force was stood up in September 1984.⁴⁴² The Service chiefs were removed from the operational command chain in 1987, but retained an element of control because their respective Service operational commands (Fleet Command, Field Force Command and Operational Command) were used as the ADF's environmental (Maritime, Land and Air) operational headquarters from 1985 onwards, an arrangement that was maintained

⁴³⁷ Sir Arthur Tange, Australian Defence: report on the reorganisation of the Defence groups of departments, p. 2

⁴³⁸ Eric Andrews, The Australian centenary history of Defence, volume 5, The Department of Defence, p. 216

⁴³⁹ Air Vice-Marshal Neil Hart AM (Retd), Interview, 7 July 2017

⁴⁴⁰ Vice Admiral Ray Griggs AO CSC (Retd), Interview, 26 May 2017

⁴⁴¹ Title changed from CDFS to CDF in October 1984 to emphasise the fact that the CDF commands the ADF. Eric Andrews, *The Australian centenary history of Defence, volume 5, The Department of Defence*, p. 233

⁴⁴² Ibid., p. 232

when Headquarters Australian Theatre (HQAST) was stood up in 1996. A more permanent and distinct removal of the Services from operational management commenced in 2004 with the creation of Headquarters Joint Operations Command.

The identification of this *external approach* to joint implementation is not intended to imply any form of criticism. Air Chief Marshal Sir Angus Houston believes that the change in command arrangements, to place CDF firmly in charge of the ADF, moderated the Services' behaviour and resulted in more emphasis being placed on the joint environment. When Houston worked with the joint operational headquarters he observed a more cooperative and collaborative approach to operations.⁴⁴³

Unfortunately, and as Air Vice-Marshal Hart suggested, this *external approach* to joint has at least one negative side-effect: it has a tendency to export joint responsibilities outside of the Service headquarters. While the Services themselves are supporting jointness by providing resources, this approach tends to result in their headquarters not integrating with the other Services because joint appears to be someone else's responsibility. The external approach to jointness has created an environment that leads to a scenario that Roger Beaumont referred to as the 'facade of jointness'.

5.6 Strategic facade of jointness

Though the term facade seems to have a negative connotation, it is an apt description of a situation where the Services can maintain what they perceive to be a joint outlook, but in reality they only undertake a minimal amount of joint interaction. The exportation of the majority of joint issues to independent organisations enables this facade by allowing inter-service interaction to occur outside of the purview of the individual Service headquarters.

When Major General Burr was asked how the Army would expect to communicate air support changes to the RAAF, he provided an excellent insight to the level of joint interaction that occurred between the Services at the strategic level.

Burr suggested that most of the communication between the Army and the RAAF on joint support requirements probably occurred using a bunch of informal mechanisms that relied on either the Service chiefs or deputy chiefs discussing the issues. He also thought that the Services' strategic planning and force design areas communication might not have been integrated enough to create a shared understanding of where they were heading, which resulted in future direction being mostly Service driven. Burr did point out that this situation has improved under the new capability life cycle process implemented under the First Principles Review, because the new joint

⁴⁴³ Air Chief Marshal Sir Angus Houston AK AFC (Retd), Interview, 20 June 2017

⁴⁴⁴ Roger A Beaumont, Joint military operations: a short history, p. 189

⁴⁴⁵ Lieutenant General Rick Burr AO DSC MVO (Retd), Interview, 4 July 2017

process 'is force design driven, which should produce a joint output that understands how we can leverage the relative strengths of the individual Services capabilities'.

Burr provided an indication of how little the Services formally communicate when he compared it to the amount of interaction that occurs between Services and their international counterparts. Both the Army and the RAAF spend a significant amount of time and resources in Army-to-Army or Air Force-to-Air Force talks with international forces, but do not hold any Army-to-Air Force talks to discuss future cooperation requirements. There is a significant opportunity to undertake discussions between the Services in a more formal sense. The current haphazard approach could explain why the Services do not maintain a shared understanding of capability priorities.

Air Marshal Hupfeld supports Burr's view on the lack of communication between the Services on capability issues and joint requirements. Hupfeld was part of the senior leadership team inside the now defunct Capability Development Group which, prior to the First Principles Review, was responsible for setting the joint requirements for ADF acquisition projects. Capability Development Group was a joint organisation and Hupfeld found that, within that construct, the Services were able to cooperate effectively. Unfortunately, as soon as that work spread into the Service headquarters he experienced stove-pipes that 'were not operating in a collaborative sense.'446

Air Vice-Marshal Hart was extremely blunt when he suggested that 'even though each of the Service headquarters are located in the same building within the Russell Offices precinct, when it came to working collaboratively, they may have well as been in different states or different defence forces.'447 He believes that one of the main reasons this occurs is because 'headquarters' staff are hesitant to share information that has not been cleared by the relevant Service chief'. Staff officers risk being punished if they give a 'Service position' on an issue that has not been cleared by the appropriate hierarchy. This need to get a 'cleared' Service position meant that the headquarters tended to communicate vertically through stove-pipes and that that the Service chief ended up being the only touchpoint between different projects and different Services.

Nicholas Jans also observed this behaviour and explained that Service chiefs 'operate at the organisational apex where so many functional stove-pipes and programs meet, the implications of the inter-connectedness of resources and activities are profound.'448 The Services' headquarters do not communicate in a meaningful way on many joint capability issues, because decisions of that nature are the purview of the Service chiefs.

The ADF has taken an external approach to jointness, which has meant that the Services themselves do not necessarily interact on joint capability and integration issues. If they do communicate on joint capability issues, any meaningful interaction tends not to occur at the working level and is primarily funnelled through the respective Service chief. This heavy reliance on an individual to

⁴⁴⁶ Air Marshal Mel Hupfeld AO DSC (Retd), Interview, 6 July 2017

⁴⁴⁷ Air Vice-Marshal Neil Hart AM (Retd), Interview, 7 July 2017

⁴⁴⁸ Nicholas Jans, The Chiefs: a study of strategic leadership, p. 48

undertake inter-service communication means that the nature and intent of those messages can be affected by the beliefs of a Service chief.

5.7 The importance of beliefs

The Service chiefs' individual views and beliefs on priorities can have an immediate and observable effect on the importance of joint capability within their headquarters. Air Vice-Marshal Hart said that as he looked back over his experience of the last 10 years, the Service chiefs had different individual personalities and those variances had a 'serious effect on the cooperation between the Services.' Service chiefs' personalities or attitudes towards the other Services dominates the whole headquarters, and when there is a change in chief there is a noticeable lag while the Service headquarters aligns with the new leader's attitude and beliefs. Hart suggests that the 'whole complexion of the Service headquarters will change to match the new chief's attitude towards the other Services'.

The ability of the Service chief to set the headquarter's tone on inter-service cooperation is important because there can be significant variations in the priority each of them places on joint cooperation and integration. Vice Admiral Griggs explained that during his time as a Service chief, and as the Vice Chief of the Defence Force, he saw a range of attitudes displayed by individual Service chiefs. At one end of the scale, Griggs suggested there were chiefs who did not believe in the 'centralism' associated with a strong joint leadership team, and they would only pay attention to joint 'when it was advantageous for their Service to do so.'450 Griggs did point out that this internal view was not necessarily wrong, but he considered that there was a significant difference between a chief who only acted as the 'head of a Service' and one who also thought they were a 'senior ADF leader'. At the other end of the scale, there were Service chiefs who placed a greater level of priority on their membership of the senior ADF leadership team and they 'inherently looked at things through a joint lens'.

One of the most qualified officers to discuss Service attitudes is Air Chief Marshal Sir Angus Houston who did two tours as CDF between 2005 and 2011. During his first tour as CDF there were significant variations in the willingness of the Service chiefs to act as part of a joint team and this frustrated his attempts to build a collegiate senior leadership team. Some of the Service chiefs in his first tour placed a greater level of priority on internal Service matters and did not comprehend the need to work as part of a larger joint team. In his second tour, Houston purposely recommended Service chief candidates to the government that he thought displayed the appropriate attitudes towards jointness and teamwork. When the government accepted all

⁴⁴⁹ Air Vice-Marshal Neil Hart AM (Retd), Interview, 7 July 2017

⁴⁵⁰ Vice Admiral Ray Griggs AO CSC (Retd), Interview, 26 May 2017

of Houston's recommendations, he was able to create a 'collegiate and very joint focused' senior leadership team. 451

Air Marshal Evans provided an example of poor attitudes to inter-service cooperation by pointing out that Air Marshal Charles Read, the Chief of Air Staff from 1972 to 1975, refused to work with the Army and at one stage was not on 'speaking terms with the Navy.'⁴⁵² In the same way that the ADF's approach to jointness has been an evolving construct, so have the attitudes and behaviours of the Service chiefs. Griggs suggests that variations in joint experience and exposure lead to a difference in how joint-focused the Service chiefs are. This should not be unexpected; as discussed in Chapter 4, an individual's attitudes towards the priority of joint are, in part, influenced by the degree of joint exposure that individual receives. It therefore makes sense that a similar pattern could be expected from a Service chief.

The hierarchical nature of decision-making within Defence means that the Service chiefs' attitudes will nearly always have a significant impact on the priority given to joint capability issues within a Service headquarters. The Service chief sets the joint tone for their headquarters, but CDF and his joint command structure are supposed to control, or at the very least influence, the behaviour of the Services. A joint command structure was put in place in 1975 to improve the sense of joint endeavour and to influence the Services towards integrated national defence objectives. With that in mind, the question becomes: How effective is that joint command structure in influencing the Services to become more integrated?

5.8 No joint policeman or boundaries

The ability of the CDF to act as a 'joint policeman' and enforce a greater level of joint integration has always been historically difficult, if not impossible. Eric Andrews suggests that it was a failure of the Tange reforms not to provide the CDF (or as it was then CDFS) with adequate staff to fulfil his various roles. This made it difficult for the CDF to 'effectively exercise command over the Services' and to call a Service 'into account where justified.' Admiral Sir Anthony Synnot, who was CDFS from 1979 to 1982, also lamented a 'lack of staff resources that would allow him to exercise effective command of the defence force.' Though there have been a significant number of structural changes within the ADF since those observations, including the creation of the Vice Chief of Defence Force position and the establishment of numerous organisations to manage essential joint activities, the ADF's external approach to jointness has meant that Service integration issues remain a concern for contemporary CDFs.

⁴⁵¹ Air Chief Marshal Sir Angus Houston AK AFC (Retd), Interview, 20 June 2017

⁴⁵² Air Marshal David Evans AC DSO AFC (Retd), Interview, 1 May 2017

⁴⁵³ Eric Andrews, *The Australian centenary history of Defence, volume 5, The Department of Defence*, p. 216

⁴⁵⁴ Robert Lowry, The Last Knight: a biography of General Sir Phillip Bennett AC KBE DSO, p. 150

On 11 January 2017, Air Chief Marshal Mark Binskin, as CDF, announced the creation of an integrated Australian Defence Force Headquarters (ADFHQ). His intent was to 'drive strategic, integrated and joined-up thinking for advice and outcomes' and 'optimising a joint and whole-of-enterprise approach to ADF capabilities and operations that builds on single Service abilities and achievements.' ADFHQ was also meant to ensure the 'better management of capabilities labelled joint by ensuring a consistent management and appropriate resourcing and prioritisation'. Binskin's intent was to implement the new arrangements using the *integrated approach* to jointness because it was 'more than just an organisational structural adjustment' – it was designed to 'integrate the existing single Service headquarters and VCDF staff into a single headquarters'.

Some of the officers who have managed joint enabling capabilities within the ADF suggest that, within the current organisational structure, there needs to be a joint entity that is given authority to compel a greater level of communication and priority for joint activities. Air Commodore Bellingham suggests that unless 'there is a top-down enforcement of a requirement to prioritise joint activities and training people, the Services just won't do it. They are too busy doing Service-related activities to place any priority on what they consider to be a nice-to-have.'456 Air Commodore Lancaster believes there is 'no drive within the Services to create coherency and to develop joint systems and architecture' and that from an 'Air Force perspective joint integration issues are way down the pecking order, because it is all about the platforms.'457

Vice Admiral Griggs was asked whether he believed that he could compel the Services to communicate on joint issues and apply appropriate priority to them. He believes that the complexity of the VCDF position made it difficult to achieve that aim but the role of Joint Force Authority was designed to do exactly that.⁴⁵⁸ The position of Joint Force Authority, which was assigned to VCDF under the First Principles Review, is the position 'that designs the joint force, sets the standards and does joint direction'. The establishment of the Joint Force Authority demonstrates that the ADF's understanding of joint continues to evolve and that the organisation is placing an increasing focus on the necessity of joint capabilities and integration. As history has shown, the ability of the Joint Force Authority to police the Services will only be effective if the position has the resources allocated to undertake the role effectively.

While there is a clearly a great deal of momentum within the ADF to address joint authority for enabling capabilities and integration, the responsibility for creating the majority of those capabilities will ultimately rest with the Services. If they can continue to remain separated from jointness, because it has been implemented using the *external approach*, then they are less likely to see the necessity to communicate and cooperate on joint issues. Air Vice-Marshal

⁴⁵⁵ Air Chief Marshal Mark Binskin, Chief of Defence Force, 'Implementing the Defence Headquarters Review Update and CDF intent', unclassified First Principles Review website, Defence Protected Network, viewed July 2017

⁴⁵⁶ Air Commodore Stuart Bellingham DSC AM CSC (Retd), Interview, 18 May 2017

⁴⁵⁷ Air Commodore Andrew Lancaster CSC (Retd), Interview, 12 April 2017

⁴⁵⁸ Vice Admiral Ray Griggs AO CSC (Retd), Interview, 26 May 2017

Hart believes that there is one more critical factor that needs to be addressed if the domainspecific focus of the Services is going to be reduced: the absence of an agreed and coherent joint capability context.

Hart believes there is another very good reason why the Services maintain a focus on domain-specific capability. When you leave it up to the Services to come up with what the ADF should be trying to achieve you are always going to end up with a competitive environment. What Hart identifies is the lack of strategic design guidance on what the ADF, as a joint force, should be capable of doing. Documents such as the Defence White Paper do not provide the required level of joint context. The current guidance remains too conceptual in nature and cannot be translated into something meaningful for the Services.

In the absence of a clear joint mission, Hart believes it is completely reasonable for the Services 'to optimise their portion of the joint force and to pursue the best individual capabilities they can acquire'. He questions, why wouldn't the Services:

want to have the best possible individual capability if there was no apparent reason not to? If there is no clear limit placed on the priority, or need for those individual capabilities, it seems nonsensical to limit how many resources you apply to making them the best they possibly can be.

The lack of joint direction allows the Services to believe that their primary role is to create the best domain-specific capability they can. If the Services are acquiring capabilities without a strong strategic joint context, it 'risks those capabilities being optimised with Service bias and without a clear joint mission to support'.

Hart suggests that the Services might actually prefer the lack of clear guidance because it 'gives them more room to manoeuvre' and they 'see less risk in having more control of their destiny'. In the current situation where nobody knows 'the rules of the game and you don't know what you're trying to achieve,' then it becomes very difficult to 'criticise the services for trying to create the best possible land, maritime or air forces.' To reduce the domain focus of the Services requires the creation of an agreed coherent joint context, which would allow the ADF to prioritise the capabilities that each of the Services needs to maintain, which in turn would allow them to focus on fewer capabilities and make them more potent. In the absence of a joint strategic context the Services will continue to pursue domain-specific excellence and maintain an internal Service focus.

A common theme so far throughout this chapter has been the suggestion that the Services' interaction is occurring within a competitive environment. This competitiveness can be seen as a natural and expected outcome from the Services attempting to gather as much influence and as many resources as possible, to pursue their primary goal of creating the best Navy, Army or Air Force. This competition is not bridled by any specific strategic guidance on the needs of joint

⁴⁵⁹ Air Vice-Marshal Neil Hart AM (Retd), Interview, 7 July 2017

capability, so the Services continue to push for the best possible domain-specific outcome. In this scenario, Hart believes the ADF is 'pitting champions against champions' and there is always a risk of 'a lot of blood on the floor'.

5.9 The effects of competition and conflict

Roger Beaumont suggests that the central paradox of jointness is that the cooperation it is designed to engender is too often forfeited because of the hostility generated during increased interaction between the Services. 460 In accordance with bureaucratic management theory we should not be surprised that hostility could be generated between the Services. It should be considered as a natural outcome of internal competition that is so often created between areas of sub-specialisation within a bureaucracy. One of the major sources of this internal competition is the limited funding available for Defence spending, which forces the civilian decision-makers to 'choose between the Services' strategic doctrines and capabilities rather than provide all with comfortable, and relatively equal, funding. This competition between the Services over budgets and responsibilities is more often referred to as inter-service rivalry and according to Huntington it has become an 'ubiquitous, inherent, and permanent feature of the defence establishment'.

5.10 Inter-service rivalry

Sorenson suggests that despite the 'progress of jointness' the Services will still compete with one another because they 'still bring their own priorities to the table.'463 The lack of an agreed joint vision for future capability requirements results in the Services pursuing individual agendas to create the optimal domain fighting force. The pursuance of this optimal force, left unbounded, can result in inter-service rivalry as they compete for a limited pool of available funds. Parkin describes inter-service rivalry as the product of 'institutional pressures within and between the Services', that are not only created by competition over funding, but can also be driven by a 'range of factors' including human frailties such as 'personal animosities'.

As with many catchall phrases, inter-service rivalry suffers from a fair amount of generalisation within the defence environment, where it is politically incorrect to be anything other than

⁴⁶⁰ Roger A Beaumont, Joint military operations: a short history, p. 185

⁴⁶¹ Jessica Blankshain, *Essays on inter-service rivalry and American civil-military relations*, Harvard University, Cambridge, MA, 2014, p. 76

⁴⁶² Samuel P Huntington, 'Inter-service competition and the political roles of armed services', p. 43

⁴⁶³ David S Sorenson, The process and politics of Defence acquisition, p. 97

⁴⁶⁴ R J Parkin, 'The urgency of war: the development of close air support doctrine in the Second World War', in Jeffrey Grey and Peter Dennis (eds), From past to future: the Australian experience of land/air operations – proceedings of the 1995 Australian Army History Conference, p. 67

joint, so it also suffers from some fairly negative connotations. When considering inter-service rivalry within the ADF, it is important to remember that the nature of this competition can vary significantly depending on the context and the cultural importance of the topic being discussed. Inter-service competition can be as simple as a robust discussion between the Services' leadership which has a clear 'win-lose mentality,' or as complex as a public confrontation over a capability issue that results in significant political consequences and media interest.⁴⁶⁵

Air Marshal Brown characterised inter-service rivalry as a level of suspicion over a competing Service's intent to 'encroach on each other's turf.'466 In this case it tends to manifest itself as an unwillingness to cooperate or share information over concerns of losing a perceived advantage. Air Commodore Ehlers has seen inter-service rivalry lead, on a number of occasions, to Service chiefs purposely 'blind-siding each other in Defence forums to either trumpet their own achievements or to demonstrate that the other Services had not considered an issue to the same degree.'467

The form inter-service rivalry takes obviously depends greatly on the desired result and the willingness of a Service to escalate the situation. In turn, escalation will depend on the importance of the issue, which is determined by factors such as the financial context, the potential effect on prestige, organisational structural implications and the cultural significance of the topic in dispute. Gosselin provides a simple illustrative model to understand the 'impact of service protectionism' in his concept of four service filters that classify the importance of issues. ⁴⁶⁸ Gosselin's description of these filters is contained within four concentric circles at Figure 2.

⁴⁶⁵ Air Vice-Marshal Neil Hart AM (Retd), Interview, 7 July 2017

⁴⁶⁶ Air Marshal Geoff Brown AO (Retd), Interview, 16 May 2017

⁴⁶⁷ Air Commodore Henrik Ehlers AM (Retd), Interview, 19 May 2017

⁴⁶⁸ J Gosselin, 'A 50-year tug of war of concepts at the crossroads: unification and the strong-Service idea", in Allan English, Daniel Gosselin, Howard Coombs and Laurence M Hickey, Operational art: Canadian perspectives, context and concepts, Canadian Defence Academy Press, Kingston, Ontario, 2005, p. 153

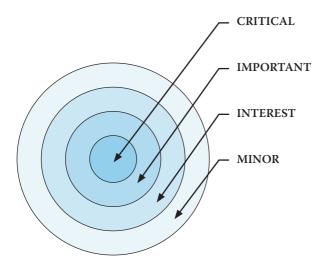


Figure 2: Gosselin's 'powerful service filters'469

CRITICAL Issues critical to the growth and survival of core Service missions and capabilities.

IMPORTANT Issues of importance to a Service, especially when it affects or may directly influence the operational effectiveness of a Service or the heart of the institution.

INTEREST Issues of interest to a Service, but for which a unified or triservice solution is acceptable, provided Service interests are considered and incorporated in the solution.

MINOR Issues of little to no importance to the Service.

Not every commentator believes that the competition created by inter-service rivalry is necessarily a bad thing. Air Marshal Brown believes that rivalry should not necessarily be seen as a negative because you 'get the best possible outcome from an organisation through competition' and without it you end up with 'sub-standard solutions and organisations such as the previously state-run Soviet airline Aeroflot'. While Brown's comments were primarily aimed at his dislike of the overcentralisation of Defence support agencies, there is an apparent logic within his comments. If the Services did not have to compete with each other, their incentive to explore both effectiveness and efficiencies in war-fighting may be reduced. Brown's belief is supported by Blankshain who wrote that 'inter-service rivalry is sometimes viewed as a healthy way to encourage innovation and efficiency'.⁴⁷¹

It is also unfair to suggest that it is ingrained within the Defence organisation; some commentators believe that it is less likely to be displayed during conflict and at the operational level of war. Beaumont suggests that inter-service tension is reduced during periods of combat 'because those on the battlefield find it easier to transcend the parochial concerns so salient in peacetime bureaucratic infighting' and that 'jointness tends to flourish more in war than peace, because ambitions, doctrine and prejudice have been subordinated to the task of finding practical solutions'. Within the ADF context, Air Marshal Brown believes that operations within Iraq and Afghanistan were a unifying force at the strategic headquarters that 'mitigated conflict and

⁴⁶⁹ J Gosselin, 'A 50-year tug of war of concepts at the crossroads: unification and the strong-Service idea", p. 154

⁴⁷⁰ Air Marshal Geoff Brown AO (Retd), Interview, 16 May 2017

⁴⁷¹ Jessica Blankshain, Essays on inter-service rivalry and American civil-military relations, p. 2

⁴⁷² Roger A Beaumont, Joint military operations: a short history, p. 187

competition for the moment. Brown does not suggest there is a complete absence of competition but the priority always remains 'supporting the war.' 473

Air Vice-Marshal Hart cites the ADF's successful cooperation on operations as a practical demonstration of how important a very clear goal is to limiting competition between the Services. There is not the same competitive behaviour between the Services on operations because 'everybody is well aware of the goals and the limits placed on participation, and all of us strive to achieve them'. This is an important observation that the Services appear willing to cease interservice competition during operations because it demonstrates that there are conditions under which the Services appear willing to place the greater good of the ADF above their individual objectives and desires. This invites the question: What shared benefit would create a similar cessation during peacetime within the strategic level of the Defence organisation?

While there may be some perceived advantages to inter-service rivalry, in relation to its effect on the Service's ability to communicate effectively on joint capability issues, the available literature portrays a mostly negative view. When considering the question of why inter-service rivalry inhibits the consideration of joint issues between the Services, there are two main areas of concern identified. Firstly, that a focus on organisational pre-eminence leads to the creation of narrow and domain-specific strategic solutions that do not consider the potential effectiveness and efficiencies of a joint solution. Secondly, that it results in organisational dysfunction caused by bitterness and distrust.

In *The Pentagon and the art of war*, Edward Luttwak describes how competition within the US armed forces reduces war-fighting effectiveness because the individual Services are predominately interested in institutional growth.⁴⁷⁵ Luttwak implies that the Services' primary goal is organisational viability and growth, and that they will pursue this aim instead of cooperating to create the most effective and efficient joint force needed to meet strategic objectives. This leads to their proposed capability solutions to strategic issues being predominately self-serving and focused on their individual domains rather than the joint context. The Services are extremely unlikely to communicate on joint solutions to strategic issues because it does not necessarily further their individual organisational aims. This pursuance of separate plans is not a new phenomenon. Eric Andrews suggests that in the early 1980s one of the main motives of the Services was the 'future of their own Service and the possibility of expanding it.' This leads to the three Services 'preparing for different wars in different locations and at different times.'⁴⁷⁶

It can therefore be seen that internal focus created by inter-service rivalry severely limits the extent to which the Services would be willing to communicate on joint capability matters. Organisational competition makes it likely that the primary focus of the Service headquarters

⁴⁷³ Air Marshal Geoff Brown AO (Retd), Interview, 16 May 2017

⁴⁷⁴ Air Vice-Marshal Neil Hart AM (Retd), Interview, 7 July 2017

⁴⁷⁵ Edward Luttwak, The Pentagon and the art of war, Simon and Schuster, New York, NY, 1984, p. 67

⁴⁷⁶ Eric Andrews, *The Australian centenary history of Defence, volume 5, The Department of Defence,* p. 245

is to create domain-specific solutions to emerging strategic issues. This competitive behaviour is designed to increase their portion of the available Defence budget and naturally results in the emphasis being placed on domain-specific solutions. While this competition between the Services is seen as a natural part of organisational politics, organisation theory predicts that there is a point at which it could lead to a completely dysfunctional relationship between the Services. That point is reached when competition escalates and becomes organisational conflict.

Though the line between organisational competition and conflict tends to be quite fluid and poorly defined, Chapter 3 identified that a good way to define the transition is when an organisation undertakes actions that are designed to actively or passively interfere with the other's opportunity to acquire resources or perform activities. Once two Services enter into conflict it is highly likely that their relationship will become dysfunctional and any communication on joint capability issues will cease. Air Marshal Evans provides a historical example of this gradual move into conflict. During his tenure as Chief of Air Force his greatest concern was that 'the rivalry, bordering on animosity, that has developed between the three Services of the ADF' had created a bitterness 'that breeds dislike and distrust'.

The best way to fully reveal the effect that conflict can have on the relationship between the Services is to examine historical case studies. The purpose of these examples is to demonstrate the level of dysfunction that can be created when the Services believe they are competing to maintain a platform or capability that is both organisationally and culturally significant. The timing of each of these case studies is significant. They both occurred in the 1980s, which is widely recognised as a period of extreme financial stress within the Defence Department. The primary source of this financial stress was the foreign exchange crisis of 1982 that resulted in the projected growth in Defence spending being scrapped, which had a major effect on planned acquisitions. The other significant issue was that Australia had not been involved in a conventional conflict for a considerable period, so there was no ongoing strategic imperative that dictated capability needs. This meant the Services were free to offer up their version of capability priorities for the future.

The two case studies are the government's direction to cancel the planned acquisition of an aircraft carrier in 1982, and the decision to transfer the battlefield helicopter capability from the RAAF to the Army in 1989. Before stepping into the case studies, the following quote from Air Chief Marshal Sir Angus Houston provides some additional context and an excellent insight into the level of dysfunction being experienced at the time.

When I look back at the environment when I came out of Staff College at the end of 1985, there was nothing going on other than normal peacetime activities, we only had a small number of United Nations activities. Fundamentally, it had been a defence force at peace for many years. The three Services spent most of the time fighting each other. There

⁴⁷⁷ David S Evans, *A fatal rivalry: Australia's defence at risk*, The MacMillan Company of Australia Pty Ltd, South Melbourne, 1990, p. 164

⁴⁷⁸ Eric Andrews, *The Australian centenary history of Defence, volume 5, The Department of Defence,* p. 224

were papers produced, then another paper from the other side that would go back and forth. We would see a lot of effort put into it, what I would call 'tribal warfare' on paper. Every decision, at the force structure committee, involved the three Services lining up for a fight. There would be attempts to get other services on board, but often, such was the environment, decisions weren't made or there wasn't enough money. It wasn't a good environment, there was almost no collaboration and cooperation, and very little that gave me any form of optimism about the future.⁴⁷⁹

5.11 The carrier debate

In June 1977, the Defence Force Development Committee approved an investigation into acquiring a conventional aircraft carrier to replace the ageing HMAS *Melbourne* which had been in service with the RAN since 1955. 480 This decision opened up the opportunity for the RAN and the RAAF to resume an organisational disagreement that had started much earlier when the first aircraft started entering into service with the Australian armed forces, an argument that was settled in the RAN's favour with the creation of the Fleet Air Arm.

On the surface, the carrier debate appeared to be about whether Australia's defence would be better served by investing in the RAN's maritime-based air power or the RAAF's land-based air power.⁴⁸¹ This case study will demonstrate that it was a textbook example of inter-service rivalry focused on the RAN's and RAAF's pursuit of organisational growth and viability.

In fairness to the Navy, their original public comments did place the importance of the carrier in a joint context. In 1977, the Chief of Naval Staff (CNS), Vice Admiral Synnot, said, 'I believe the whole thrust of our strategy today strongly suggests that emphasis must be given to our maritime capabilities. Let me make it clear that when I refer to capabilities I mean not only Navy but all forces involved in maritime defence.'482 Synnot even went as far as to specifically mention the need for the RAAF to acquire long-range maritime aircraft. This goodwill ended when it became apparent that the RAAF would oppose the acquisition of a replacement aircraft carrier.

On 22 August 1980, the Defence Committee met to discuss the Cabinet submission related to the replacement carrier, known as the Seaborne Air Capability. The CDFS and the CNS spoke in favour of the carrier. The CGS held a more neutral position, stressing the need for a balanced naval capability rather than simply the projection of naval air power. The CAS took a negative stance based on his reservations about the capability of short take-off and vertical landing (STOVL) aircraft that were part of the carrier proposal.⁴⁸³ CAS once again voiced serious concerns over

⁴⁷⁹ Air Chief Marshal Sir Angus Houston AK AFC (Retd), Interview, 20 June 2017

⁴⁸⁰ Timothy Hall, HMAS Melbourne, George Allen & Unwin, North Sydney, NSW, 1982, p. 11

⁴⁸¹ Richard T Menhinick, Sea control and maritime power projection for Australia, p. 87

⁴⁸² Frank Cranston, 'Admiral wants aircraft carriers retained,' The Canberra Times, 10 November 1977

⁴⁸³ NAA A10756 LC3015, PMC Cabinet Note ASW - Aircraft Carrier 9 February 1982, p. 93

the ability of STOVL aircraft at a follow-on meeting in July 1980, where he also proposed that a helicopter carrier capable of undertaking anti-submarine warfare (ASW) would be a more desirable option, and that this helicopter carrier could form part of an overall maritime capability that would include Air Force capabilities including maritime patrol and air-to-air refuelling of aircraft.⁴⁸⁴

Air Force's campaign, both private and public, against the aircraft carrier was consistent and based on three main arguments. The first was a concern over the poor capability levels of STOVL aircraft, on which Air Force had credibility because air combat aircraft is their core business. The second concern was over the survivability of aircraft carriers in a modern combat environment, and their extreme expense, which in combination made any acquisition an 'imprudent and unnecessary risk'. The third concern was whether the RAAF was capable of covering Australia's sea lanes with land-based fixed wing aircraft using refuelling.

The Navy's defence of the carrier requirement was slightly more inconsistent. ⁴⁸⁷ They began by justifying the need for a carrier based on its ASW capabilities to act as an essential task-group escort. Once it became apparent that the government would be willing to consider a fixed-wing capable carrier, they started to defend its need based on the ability to defend sea lines of communication. This line of defence was combined with a counter-argument, against Air Force, over the inability of land-based aircraft to control the air in a maritime environment. ⁴⁸⁸

Based on Kim Beazley's thoughts that military professionals must have an unwavering belief in their specific form of warfare, you could suggest that both Navy and Air Force were engaged in the carrier debate because they truly believed that their strategic solution provided the best defence for Australia. A realist point of view would suggest that their primary motivations were based around traditional inter-service rivalry concerns of organisational growth and viability. With the Defence budget likely to shrink, the Services believed that the outcome of the carrier debate could have potentially disastrous organisational consequences.

The primary organisational concern for the RAAF was the cost of the carrier project and the potential effect it could have on their major projects. In a 1982 research paper, Brown and Woolner describe how the purchase of an aircraft carrier could not be absorbed by the five-year defence program (FYDP). The paper suggests that, even at its cheapest possible option which was the purchase of the British carrier HMS *Invincible*, the acquisition was a threat to the entire FYDP, and particularly the RAAF's FA-18 fighter program, which provided a strong

⁴⁸⁴ NAA A10756 LC3015, DFDC Minute 19/1980 from meetings on 15, 17, 23 and 31 July 1980, pp. 114–118

⁴⁸⁵ Ibid.

⁴⁸⁶ Australian Parliament, Joint Committee on Foreign Affairs and Defence, Sub-Committee on Defence Matters, May–June 1982 – Official Hansard Transcript of Evidence, p. 238

⁴⁸⁷ Keith Scott, 'Navy "done over" by the Air Force, Canberra Times, 3 July 1989

⁴⁸⁸ Australian Parliament, Joint Committee on Foreign Affairs and Defence, Sub-Committee on Defence Matters, May–June 1982 – Official Hansard Transcript of Evidence, p. 79

motive for the Air Force to oppose the carrier replacement project. ⁴⁸⁹ In an air combat obsessed organisation it is easy to understand why any threat to the fighter replacement program was seen as an organisational red line. It provides a strong reason why the RAAF carried out such a focused campaign against the replacement carrier, especially when any significant changes to the FYDP also threatened the acquisition of new maritime patrol aircraft. ⁴⁹⁰

To a lesser extent, there is one other organisational issue that may have motivated Air Force and that is a cultural issue that relates back to the original carrier debates of the 1920s and 1940s. The RAAF continues to believe that there should be one provider of air power, and the existence of the RAN's aircraft carrier ran counter to that cultural principle. The effect of this cultural belief on the carrier debate is demonstrated by Air Marshal Funnell, who at the end of the process wrote, 'the ADF has been developed on the general precept that our combat aircraft are owned and operated by Air Force. The Navy and Army should accept and continue to work with this.'491

The RAN also had significant cultural concerns over losing the carrier debate. Within most modern navies the aircraft carrier has a critical cultural weight. This is because 'only a handful of countries have aircraft carriers in their arsenals' and 'they form an exclusive club'. In a similar manner to the cultural importance of combat aircraft within an air force, operating an aircraft carrier signifies that you are part of an elite club at the top tier of world navies. Losing the aircraft carrier capability would have removed the RAN from this elite club. It was a cultural significance worth fighting for.

Despite Air Force concerns, the Australian Government decided on 26 August 1980 that the RAN should acquire a purpose designed carrier for ASW helicopters and that the carrier selected should potentially be capable of operating STOVL aircraft.⁴⁹³ This decision was followed up two years later by an agreement in principle to acquire *Invincible* from the United Kingdom for delivery in 1983.⁴⁹⁴ These two announcements, but particularly the latter, did not reduce the inter-service rivalry. In fact, the impending finality of the decision pushed the arguments into the public arena.

Though the RAN and the RAAF were in conflict it was still unacceptable for them to fight in public so they both used proxies to voice their organisational opinions. The RAN used former serving officers from the Navy League, such as a previous Chief of Naval Staff, Vice Admiral Sir Richard Peek. The RAAF employed a previously serving Deputy Chief of Air Staff, Air Vice-Marshal Fred

⁴⁸⁹ Gary Brown and Derek Woolner, *A new aircraft carrier for the Royal Australian Navy?*, The Research School of Pacific Studies, Australian National University, Canberra, 1982, pp. 123–137

⁴⁹⁰ Ibid.

⁴⁹¹ Ray Funnell, 'Air power strategy', in Desmond Ball (ed), *Air power: global developments and Australian perspectives*, p. 107

⁴⁹² Kyle Mizokami, 'Every single aircraft carrier in the world,' *Popularmechanics.com*, 25 January 2016, viewed October 2017, http://www.popularmechanics.com/military/navy-ships/g2412/a-global-roundup-of-aircraft-carriers/

⁴⁹³ NAA A10756 LC3015, Cabinet Decision 12648, 26 August 1980, p. 201

⁴⁹⁴ NAA A10756 LC3015, Cabinet Decision 17600, 24 February 1982, p. 36

Barnes, as their front man in the debate. In accordance with the expectation that inter-service rivalry will cause a Service to champion their individual domains, both proxies publicly espoused the advantages of their Service's military capability and denigrated the other Service's ability to provide a similar level of defence. The extent of the public debate saw the inter-service rivalry spill into political arena.

The decision to acquire *Invincible* unleashed a significant amount of debate in both houses of parliament.⁴⁹⁶ Subsequently, the Opposition raised a motion in the Senate to refer the purchase of the aircraft carrier to the Joint Parliamentary Committee on Foreign Affairs and Defence.⁴⁹⁷ Though the original motion on 11 March 1982 was unsuccessful, it was raised again two weeks later, and it was agreed that the Joint Parliamentary Committee on Foreign Affairs and Defence would, as a matter of urgency, investigate the relevance of an aircraft carrier to Australia's current and perceived strategic environment, the role of an aircraft carrier in the Defence Force structure of Australia, and the effects of the purchase of an aircraft carrier on the future defence procurement program.⁴⁹⁸

The parliamentary committee provided the Services with another opportunity to employ their proxies to continue their rivalry in the public arena. Once again, their testimony emphasised the relevance of their domain's capabilities and talked down the other Service's claims. Vice Admiral Sir Anthony Synnot gave evidence that the carrier 'would be useful and very important in virtually any scenario you can think of', and that the Air Force platforms 'have a limited range' and 'presently lack what I would call modern weapons'. In summarising Air Force's capability shortfalls, Synnot said, 'there are circumstances where shore-based air is going to do it all for you. There are others where it is going to be very expensive for shore based air to do it and others where shore based air just will not be able to do it.'499

Air Vice-Marshal Barnes championed the RAAF's position by stating that the FA-18 and F-111 could 'cover Australia's sea lanes with land-based fixed-wing aircraft using refuelling' and that 'the cheapest way to maintain a good viable defence force would be to purchase tankers, airborne early warning aircraft, airfields and ground based microwave radars'. Barnes also refuted the carrier's advantages by stating that 'there has been a continuing demonstration of the vulnerability of

⁴⁹⁵ Frank Cranston, 'Fighters, carrier "Separate", The Canberra Times, 2 April 1980, and 'Former Air Chief opposes carrier plan: Invincible, Harriers "waste of resources", The Canberra Times, 30 June 1982

⁴⁹⁶ House of Representatives Hansard, 25 February 1981, p. 126; Senate Hansard, 11 March 1982, p. 714; Senate Hansard 25 March 1982, p. 1236, viewed October 2017, http://www.aph.gov.au/Parliamentary_Business/Hansard/

⁴⁹⁷ Senate Hansard, 11 March 1982, p. 713, viewed October 2017, http://www.aph.gov.au/ Parliamentary_Business/Hansard/

⁴⁹⁸ Senate Hansard, 25 March 1982, p. 1236, viewed October 2017, http://www.aph.gov.au/ Parliamentary_Business/Hansard/

⁴⁹⁹ Australian Parliament, Joint Committee on Foreign Affairs and Defence. Sub-Committee on Defence Matters, May–June 1982 – Official Hansard Transcript of Evidence, pp. 11, 20 and 79

surface vessels, particularly to air attack' and that 'the capabilities of STOVL aircraft, both current and potential, have been grossly inflated.'500

In the event, the parliamentary investigation became irrelevant on 13 July 1982 when, during discussions between the British and Australian Governments, the Australian Minister for Defence was advised that the British now wished to retain *Invincible* because of their experience in the Falklands War.⁵⁰¹ With the British ship no longer available the only viable carrier solution became the purchase of a purpose-built US carrier at double the price of *Invincible*, and it quickly became apparent that the one billion dollar price tag was unaffordable.⁵⁰² With this information the joint parliamentary committee had no real choice but to find that 'if we could have got *Invincible* for the price, then a case could be made for a carrier, but the full project cost to buy a purpose designed ship (and the associated aircraft), in the context of present Defence spending levels, made it harder to justify the purchase'.⁵⁰³ Plans to replace *Melbourne* were finally shelved on 14 March 1983 when the Minister for Defence, Gordon Scholes, announced that Cabinet had 'rejected the purchase of a new aircraft carrier' because 'the size of the carrier investment distorts defence planning.'⁵⁰⁴

The carrier debate is an excellent example of inter-service rivalry that clearly crossed the line from competition to open organisational conflict. Both Services were determined to ensure that their organisation did not suffer any disadvantage during the event. Not only did they employ proxies to champion their own capabilities, they publicly attacked each other's claims of superiority and denounced the military value of the other's domain's capabilities. The depth of feeling during the debate was intense. Years later, commentators were still claiming that the RAN was 'done over' by the RAAF.⁵⁰⁵ Air Marshal Evans who was intimately involved in the event in his position as Chief of Air Force – Operations, still believes that the Navy considers him as 'the bastard that lost them the carrier'.⁵⁰⁶ Within this caustic environment created by inter-service rivalry, it is easy to understand that communication and cooperation between the Service headquarters would have ceased, and that the relationship between the RAN and RAAF would have been devoid of trust for a significant period.

⁵⁰⁰ Australian Parliament, Joint Committee on Foreign Affairs and Defence. Sub-Committee on Defence Matters, May–June 1982 – Official Hansard Transcript of Evidence, pp. 217, 220–226, 238 and 247

⁵⁰¹ NAA A12930 2028, Memorandum No. 2028 Replacement of the aircraft carrier – related to Decision number 18637, 13 July 1982, p. 2

⁵⁰² Gary Brown and Derek Woolner, A new aircraft carrier for the Royal Australian Navy?, pp. 123-137

⁵⁰³ Australian Parliament, Joint Committee on Foreign Affairs and Defence, *An aircraft carrier for the Australian Defence Force*, Commonwealth Government Printer, Canberra, ACT, 1982, p. 51

⁵⁰⁴ Frank Cranston, 'HMAS Melbourne to be scrapped: carrier scheme rejected by Government', The Canberra Times, 15 March 1983

⁵⁰⁵ Keith Scott, 'Navy "done over" by the Air Force, The Canberra Times, 3 July 1989

⁵⁰⁶ Air Marshal David Evans AC DSO AFC (Retd), Interview, 1 May 2017

Of course, the big loser from events such as these is joint. During and immediately after the carrier debate it is highly unlikely that, at the strategic headquarters level, the RAN and RAAF had any meaningful conversations on the creation and priority of joint capabilities.

5.12 The battlefield helicopter decision

The second case study, which involves the transfer of the battlefield helicopter capability from the RAAF to the Australian Army, is also a useful example of inter-service rivalry because it demonstrates that rhetoric and public debate are not the only actions that generate ill-feeling and mistrust between the Services. This case study describes how a great deal of relationship damage can occur when one Service perceives that the system has allowed a competing Service to act in an underhanded manner.

On 15 December 1985, Cabinet agreed to the acquisition of new utility helicopters for the RAAF and approved negotiations to commence on two aircraft types, the Blackhawk and the Super Puma. ⁵⁰⁷ Decades before this decision was taken, and as described in detail in Chapter 2, there was a growing dissatisfaction within Army over the level of air support being provided by the RAAF. Robert Lowry believes that the 'transfer of RAAF battlefield helicopters to the Army had been simmering since the Vietnam War.' ⁵⁰⁸ Jeffrey Grey agrees that because of 'the lack of interest shown by Air Force in supporting the Army through helicopter operations in Vietnam, there was a strong and lasting impression that the army's interests could not be entrusted to the RAAF.' ⁵⁰⁹

In the 1980s, the use of battlefield helicopters to conduct airmobile operations had become accepted doctrine within the ADF. While the doctrine may have been accepted, there still remained a strong belief within Army that they needed to own and control the helicopters for them to be effectively integrated into ground operations. As early as 1969 Army had stated that the increasing importance of airmobile operations would require them to 'consider the absorption of aircraft and crew if new aircraft are introduced for the role'.

While the acquisition of new battlefield helicopters might have been a potential catalyst for a reinvigoration in the helicopter ownership debate, the primary trigger is more likely to have been the force structure review undertaken by Paul Dibb, which is more commonly referred to as the 'Dibb Review'. As part of this process the CDF, General Sir Phillip Bennett, advised the Defence Secretary that 'he would initiate a study into the implications of transferring the helicopters to the Army.'⁵¹¹ In December 1985, Bennett directed the then Air Vice-Marshal Ray Funnell and Major General Neville Smethurst to organise a study into whether the RAAF or Army should own the

⁵⁰⁷ NAA A14039 3498 - Cabinet Submission 3498 - RAAF Utility Helicopters, 15 December 1985 p. 2

⁵⁰⁸ Robert Lowry, The Last Knight: a biography of General Sir Phillip Bennett AC KBE DSO, p. 288

⁵⁰⁹ Jeffrey Grey, The Australian centenary history of Defence, volume 1, The Australian Army, pp. 216-217

⁵¹⁰ AWM 121, Folio 172, Minute 346/69 Army Aviation Organisation, 1 July 1969

⁵¹¹ Robert Lowry, The Last Knight: a biography of General Sir Phillip Bennett AC KBE DSO, p. 289

helicopters. Funnell claims that Bennett told him that he believed the helicopters should remain with the Air Force, but 'until we go through a process and get a proper study done the Army will not be satisfied,'512 a claim that Bennett vehemently rejected, 'denying that he gave any assurances that there would be no change in helicopter ownership.'513

On 7 February 1986, Bennett announced that the Chief of General Staff, Lieutenant General Peter Gration, had submitted a proposal to undertake a study of the ownership of battlefield helicopters.⁵¹⁴ To conduct the study CDF appointed a joint service team, headed by the Director General of Joint Operations and Plans, Commodore Ian MacDougall. In an attempt to make the joint team reasonably impartial it consisted of four Navy members, one civilian member and a single representative from Army and Air Force.⁵¹⁵ The result of the study was that the majority of the joint team recommended that the helicopters remain with Air Force. The Army representative was the only dissenting member.⁵¹⁶ The recommendation not to transfer ownership was based on a finding that it would cost an additional 70 million dollars to undertake the transfer and that was not considered cost-efficient.⁵¹⁷ The report did indicate that the level of service being provided by the Air Force could be improved to allow greater Army access, and it made several recommendations on the allocation of flying hours and the use of Army exchange pilots within the battlefield helicopter capability.⁵¹⁸

When it came to constructing their argument to retain the helicopter capability the RAAF relied heavily on the joint report as their primary evidence. Air Force believed that the cost effectiveness argument would be convincing, especially when the joint team did not find any significant concerns over the level of air support being provided. In what would prove to be an unwise move, the Air Force also argued that the helicopter force created a surge capacity in pilots that could be used by other Air Force capabilities during times of conflict and crisis.⁵¹⁹

The Army's publicly stated reason for attaining control of the battlefield helicopters can be seen as a logically consistent extension of the arguments used to acquire ownership of the light aircraft capability in 1960. Army's argument for seeking possession of the battlefield helicopter capability was based on a belief that helicopters had become an integral part of ground operations,

⁵¹² Air Marshal Ray Funnell AC (Retd), Interview, 17 May 2017. Air Marshal Funnell made the same claim during an Official Air Force History interview that was conducted in October 2016.

⁵¹³ Robert Lowry, The Last Knight: a biography of General Sir Phillip Bennett AC KBE DSO, p. 289

⁵¹⁴ Frank Cranston, 'Army looks for more control of helicopters', The Canberra Times, 7 February 1986

⁵¹⁵ David S Evans, A fatal rivalry: Australia's defence at risk, p. 117

⁵¹⁶ Official Air Force History interview with Air Marshal Ray Funnell AC (Retd), October 2016

⁵¹⁷ David S Evans, A fatal rivalry: Australia's defence at risk, p. 117

⁵¹⁸ Air Chief Marshal Sir Angus Houston AK AFC (Retd), Interview, 20 June 2017

⁵¹⁹ Official Air Force History interview with Air Marshal Jake Newham AC (Retd), June 2012

in the same way that armoured personnel carriers were considered an essential part of the modern battlefield.⁵²⁰

In terms of inter-service rivalry, the reasons why the Army and the RAAF entered into conflict over battlefield helicopters is more straightforward than those associated with the carrier debate. In accordance with organisation theory, the Services will pursue those policies that enable the growth of their organisation and those activities 'the members believe will make the organisations, as they define it, more important'. In simple terms the Army and the RAAF were engaged in a turf war, but both Services also had other organisational drivers for wanting ownership of the helicopters.

For Army, the main goal would have been to gain control of those resources it considered essential for completing its primary mission. As Chapter 3 described, as organisations become more reliant on each other for the completion of their primary functions, failure to deliver, or the perception of incomplete service provision, has the potential to create significant organisational conflict. For Army, ownership of the helicopters would significantly reduce their one-way interdependence on Air Force and would allow them to complete their primary mission without the continual conflict created over the level of support they received.

For the RAAF, apart from the obvious organisational resources and influence that would be lost with the transfer, the biggest concern would be that the decision would be in direct contradiction of the organisational belief that there should only be one provider of air power. The importance of this belief can be seen in the Air Force's reliance on the efficiency argument as the primary reason they should retain the helicopter capability. The findings of the joint team played directly into the established belief that one air force is the most efficient manner of applying air power, and any increase in the Army's air assets would touch on the RAAF's organisational raw nerves.

When it came to discussing ownership of the battlefield helicopters at the Chiefs of Staff Committee (COSC) on 11 September 1986, Air Marshal Ray Funnell believes that Air Force would have stepped into the meeting feeling reasonably confident because the night before the CDF had said to him, 'Ray we've got this, we've got the recommendations and okay, that's the way it's going to be'. What follows is from Funnell's account of what happened at the COSC meeting.

When it came to the agenda item to discuss the ownership of battlefield helicopters, the CDF tabled a one-page document that expressed his support for the transfer. The agenda item that was supposed to be discussed was the joint report created by Commodore MacDougall, but that report and its recommendations were never discussed.⁵²³ Air Marshal Jake Newham, who was Chief of Air Staff and present at the meeting, said that the CDF 'tabled a single piece of paper, which said

⁵²⁰ House of Representatives Hansard, 27 November 1986, p. 3864, viewed October 2017, http://www.aph.gov.au/Parliamentary_Business/Hansard/

⁵²¹ Morton H Halperin and Priscilla A Clapp, Bureaucratic politics and foreign policy, p. 38

⁵²² Air Marshal Ray Funnell AC (Retd), Interview, 17 May 2017

⁵²³ Ibid.

that his vote was for Army to take over the helicopters, he thought that they really should be an element of the Army and that was quite a blow, then we stood up and went to lunch.'524 After the lunch break was completed, the Chief of Naval Staff, Vice Admiral Michael Hudson asked to be heard and indicated that he had considered the proposition over the luncheon break and, despite the fact that the Navy had previously supported the Air Force's position, he had changed his opinion and now believed that the Army should own and operate the helicopters. He then turned to Air Marshal Newham and apologised for his change in decision but indicated that he did not want to put Air Force through what Navy had gone through over the carrier. 525

Newham expressed his dissatisfaction with the conduct of the meeting and advised the other members that he intended to exercise his right to discuss the matter with the Minister for Defence. Despite this protest, COSC decided to agree to the transfer of the battlefield helicopter capability from the RAAF to Army, with CDF, the Chief of General Staff and the Chief of Naval Staff voting in favour. Newham did go to see the Defence Minister, Kim Beazley, over the issue and explained his concerns over the conduct of the meeting and how the decision went against the findings of the joint report. Despite Newham's protests to the Minister, the COSC decision was upheld and they announced in the 1987 Defence White Paper, *The defence of Australia 1987*, that 'the Government has decided to transfer full command and ownership of battlefield helicopters from the Air Force to the Army.

The RAAF were clearly going to be unhappy with the decision because they lost and they believed that the Army had broken 'away from a long-standing formal agreement' that COSC members would not attempt to take-over each other's capabilities.⁵²⁸

This book purposely has used Air Force's version of events because their perception of what happened magnified the effect of the decision. In short, Air Force believes that they were conspired against and this had a serious effect on their willingness to cooperate with the other Services after the decision. Air Force believed they were duped because the COSC members refused to discuss the content of the joint report that clearly recommended that the RAAF retain ownership of the helicopters. Air Marshal Funnell believes that CDF was portraying support for Air Force's position to him, while privately and then publicly supporting the transfer to Army. Finally, Air Chief Marshal Sir Angus Houston suggests that 'the Navy played a duplicitous role' in withdrawing their support at the meeting. ⁵²⁹

⁵²⁴ Official Air Force History interview with Air Marshal Jake Newham AC (Retd), June 2012

⁵²⁵ Air Marshal Ray Funnell AC (Retd), Interview, 17 May 2017

⁵²⁶ Official Air Force History interview with Air Marshal Jake Newham AC (Retd), June 2012

⁵²⁷ Commonwealth Government of Australia, *The defence of Australia 1987*, Australian Government Publishing Service, Canberra, ACT, 1987, p. 57

⁵²⁸ David S Evans, A fatal rivalry: Australia's defence at risk, p. 115

⁵²⁹ Air Chief Marshal Sir Angus Houston AK AFC (Retd), Interview, 20 June 2017

Whether Air Force's version of events is correct is irrelevant for this work. What is important is what the organisation's leaders believed and responded to. When it comes to the factors that drive cooperation between the Service headquarters, perception is reality.

In describing the organisational effects that the battlefield helicopter decision had on the RAAF, even the Minister for Defence, Kim Beazley, realises the negativity it caused. Beazley suggests that 'in relation to having the Blackhawks taken off them, in a sense Air Force could feel itself having been unfairly treated,' and that after the decision he observed bitterness within the organisation. ⁵³⁰ Air Marshal Evans described how the decision made 'Air Force feel angry, it was a disgraceful act on Army's part' and 'it was bad for the organisation's morale and its attitude towards Army'. ⁵³¹ Funnell described the helicopter decision as 'shattering to cooperation'. ⁵³² It is clear from the comments of those involved in the event that the inter-service rivalry created by the helicopter decision created a legacy of bitterness within the RAAF which remained for years, ⁵³³ a legacy that no doubt reduced the willingness of the RAAF to communicate and cooperate with the Army, and possibly even the Navy, for a considerable period.

When reviewing the two case studies it is easy to focus on the apparent organisational advantages that the Services are seeking to attain. While it would be difficult to argue that the Services' actions were devoid of malice, it is important to remember that their primary motivations are to meet cultural imperatives and to seek the resources necessary to create the optimum fighting force. When you look at both these scenarios through that lens it becomes harder to denounce their actions. Was the Navy wrong to pursue a carrier that would significantly increase the deployable air power of the ADF? Was the Air Force incorrect to pursue more land-based air power so that it could effectively defend multiple locations? Was the Army mistaken for wanting the helicopters to be an integral part of their force so that they could rely on their availability? Was the Air Force wrong for wanting to own the helicopters because they believe it is more efficient to keep air power assets centrally managed? The answer is no, none of the Services was wrong, and at the same time none of them was completely right.

It is the nature of military capability that more of it will nearly always increase the combat effectiveness of the fighting force it supports. In each of the domains the Services know what resources they need to optimise their force and to create the maximum amount of capability. Inter-service rivalry should not be seen as a desire by the Services to best one another. They are simply competing to achieve the resources they perceive as necessary to build the best fighting force. Inter-service rivalry occurs when pursuit of those resources brings them into conflict. Quite correctly, inter-service rivalry is seen as the antithesis of joint, but not simply because the Services are seen to be competing with one another. The real problem with inter-service rivalry is that it

⁵³⁰ The Honourable Kim Beazley, Interview, 23 May 2017

⁵³¹ Air Marshal David Evans AC DSO AFC (Retd), Interview, 1 May 2017

⁵³² Air Marshal Ray Funnell AC (Retd), Interview, 17 May 2017

⁵³³ Alan Stephens, *Power plus attitude: ideas, strategy and doctrine in the Royal Australian Air Force* 1921–1991, p. 128

stops meaningful communication between the Service headquarters, which results in reduced or non-existent cooperation on the creation, sustainment and integration of joint capability.

5.13 When context matters

Because the two case studies are from the 1980s when jointness in the ADF was in its infancy, an argument could be made that they occurred during a period where less emphasis was placed on inter-service cooperation and joint integration. With joint having evolved in the subsequent four decades, and with the Services becoming more aware of its importance to combat effectiveness, can the extreme inter-service rivalry demonstrated in the 1980s be considered a thing of the past? Some influential commentators within Defence believe that, given the right context, it could easily reappear.

Duncan Lewis, Secretary of the Department of Defence in 2011 and 2012, regarded it as:

near-inevitable that the new collegiality will be placed under severe pressure in the near future. If and when the military budget is trimmed and budget pressures inevitably rise, there will then be a tendency for more trading and even more self-protection.'534

Vice Admiral Griggs also thinks that the current collegiality was due to the strategic context. He believes it is very easy to fall into the trap of saying that 'everyone is getting on, cooperating and being joint' when you are in a neutral or positive financial trajectory and the government has an expansionary rather than contracting mindset for Defence capability.⁵³⁵ Griggs suggests 'if you are on a positive expansionary path it is very hard to have those inter-service fights but that behaviour could reappear if the current strategic context changed'.

Air Marshal Brown indicated there is still a level of latent competition and inter-service rivalry which could occur again if resources got too tight. Brown suggests that 'as much as we hug now, it's because everybody has been relatively well fed for a while. That severe competition is still there.'536 Sir Angus Houston believes that when he was Chief of Air Force the senior leadership team got on very well but he puts that down to the fact that they 'weren't competing for their existence and none of the capabilities they had were under threat'.537 Air Vice-Marshal Hart said, 'the Services working well together in the last few years is a case of I'll support what you want to do, if you don't go against my project.'538 He believes that when the Services cannot see anything being lost by supporting each other, then generally they will back each other's proposals. Hart also indicates that this cooperation is absolutely context dependent and that 'the minute the Services think they are competing for resources, the gloves go back on again'.

⁵³⁴ Nicholas Jans, The Chiefs: a study of strategic leadership, p. 7

⁵³⁵ Vice Admiral Ray Griggs AO CSC (Retd), Interview, 26 May 2017

⁵³⁶ Air Marshal Geoff Brown AO (Retd), Interview, 16 May 2017

⁵³⁷ Air Chief Marshal Sir Angus Houston AK AFC (Retd), Interview, 20 June 2017

⁵³⁸ Air Vice-Marshal Neil Hart AM (Retd), Interview, 7 July 2017

The views expressed by very senior leaders from within the organisation make it clear that while people might be expressing the intent to increase the level of joint collaboration between the Services, this willingness to embrace jointness is directly related to the prevailing political context. What this observation means is that even though the ADF recognises the increasing importance of joint integration in force design, the willingness of the Services to communicate and cooperate on joint capability remains context dependent. The current upsurge in joint focus does not necessarily mean that the competition and conflict associated with inter-service rivalry has been eradicated; it has simply been placed in abeyance during the good times.

5.14 Summary

Organisational behaviour makes it unlikely that the Service headquarters will consider it a priority to communicate and cooperate on the design and provision of joint capabilities. According to organisation theory this is almost expected behaviour within establishments that have created areas of specialisation to deal with task complexity. These areas of specialisation then tend to focus on the missions or tasks that they believe make them important to the overall organisation. Within the ADF, the Service headquarters display this inclination by primarily focusing on the creation and sustainment of their own domain-specific military capabilities. This internal focus is maintained for two main organisational goals. The first goal, which could be considered particularly self-serving, is that the pursuance of their own capabilities allows the Service headquarters to grow the size of their force and to ensure their ongoing viability. The second goal, which is one the Service headquarters should be strongly encouraged to pursue, is to build the optimum fighting force for their maritime, land and air domains. The Service headquarters should be aiming for domain excellence because warfare does not reward those who come second. Unfortunately, the Service headquarters' attempt to fulfil these goals places a higher organisational priority on the creation and maintenance of their own capabilities, rather than on joint.

There are several other key reasons why the Service headquarters maintain an internal focus on their own capabilities. The Services are not required to consider joint issues on a regular basis because within the ADF joint is something the Services 'do', not something they 'are'. Within the Australian construct, joint has been exported to specific headquarters and commands. Doing joint becomes the responsibility of those compartmentalised organisations, and the Services can demonstrate their commitment to jointness simply by providing those organisations with personnel. That way the Service headquarters do not actually have to communicate with each other on joint issues, they do it through a 'purple' intermediary. Unfortunately, because military organisations are so hierarchical in nature, the attitude of senior leaders will also mould a Service's attitudes towards engaging on joint capability issues. If a Service chief places little value or priority on the creation or integration of joint capabilities, then it is very likely that their headquarters will display exactly the same attitude. To some extent the Services cannot wear all the blame for maintaining their internal focus because their aspirations are not bounded by an agreed joint vision that details both their domain and joint capability responsibilities. Another issue is that

the joint strategic centre is not strong enough to police the activities of the Services and punish those who transgress or reward those headquarters that display the appropriate joint priorities.

Historically, perhaps the single biggest reason the Services have not communicated or cooperated on joint capability issues is because they always felt they were competing with one another. Pursuing the optimum fighting force is exceedingly expensive, and during times of reduced funding there will rarely be enough resources to meet the ambitions of all three Services. This creates inter-service rivalry and results in each of them championing its own domain in an attempt to be considered the most relevant and necessary. In this competitive environment their rhetoric becomes focused on the importance of their individual Service capabilities, and that leaves nobody to champion the joint ones. In extreme circumstances, when Services feel that too much is at stake, that competition will become conflict and then all hope of joint cooperation is lost. Competition can be a good thing, but within the ADF inter-service rivalry has consistently meant that the Service headquarters' relationships are dysfunctional and do not enable cooperation.

This chapter has painted quite a negative view of the relationship between the Services within the ADF. This has to be expected when its purpose was to identify those areas of organisational behaviour that drive an internal focus and that reduce communication and cooperation. Though joint relationships within the ADF are complicated, they are not impossible, and within the correct strategic context, where each of the Services do not feel its turf or resource base is being threatened, they will work and communicate with one another on joint capability issues. Unfortunately, the reality is that the Service headquarters will, on most occasions, place their priorities above the needs of jointness. This internal Service focus is not unique to Australia. The Services within the United States and United Kingdom armed forces, who adopted jointness using primarily the *external approach*, also tend to suffer from an inability to communicate and cooperate on joint capability issues at the strategic level. ⁵³⁹ Is there a better way of doing joint, one that creates a greater level of cooperation and communication between the Services? The next chapter reviews two distinctly different organisational models to see if they improve the challenge of jointness.

⁵³⁹ Ryan Shaw and Miriam Krieger, 'Don't leave jointness to the Services: preserving joint officer development amid Goldwater-Nichols reform', *War on the Rocks*, 30 December 2015, viewed October 2017, https://warontherocks.com/2015/12/dont-leave-jointness-to-the-services-preserving-joint-officer-development-amid-goldwater-nichols-reform/, and Frank Ledwidge, *Punching below our weight: how inter-service rivalry has damaged the British armed forces*, Yale University Press, New Haven, CT, 2012

6

Different approaches to jointness

The *external approach* to jointness adopted by the ADF has created a series of organisational behaviours that reduce the opportunity and willingness of the three Services to communicate and cooperate on joint issues at the strategic level. These behaviours, when added to a cultural tendency of the Services to focus on domain-specific capabilities, are limiting the ability of the ADF to create a truly integrated joint force. If the *external approach* to jointness is enabling the Services' organisational culture and behaviour, are there alternative approaches that could reduce these organisational factors?

Australia's approach to jointness, in most respects, mirrors the approach of our major wartime allies, the United States and United Kingdom. All three nations have three independent and co-equal Services that generate the majority of their military capability. Service-generated capability is then brought together as a joint force to prosecute a joint campaign, normally under the authority of a joint force commander. In most respects all three nations have adopted the *external approach* to jointness whereby the majority of joint operations and shared capabilities are managed by specialised joint organisations that exist outside of the Service headquarters chain of command but remain beholden to the Services for the provision of qualified personnel. As many of the examples provided demonstrate, both the Americans and the British suffer from similar organisational cultural and behavioural issues to those experienced with the ADF. Does the similarity in our organisational structures and the resultant problems point to a weakness in an *external approach* to jointness?

To answer that question, two examples of nations that have chosen to adopt a distinctly different organisational approach to the generation of military capability are discussed. The examples could determine whether those approaches have increased the ability of the maritime, land and air specialists to communicate and cooperate on integration and the creation of joint enabling capabilities.

The first example comes from Canada where the government decided to disestablish the three domain specialist Services and create a single unified defence force known as the Canadian Armed Forces (CAF), also known more simply as the Canadian Forces (CF).⁵⁴¹ To date, Canada is the

⁵⁴⁰ The US also has the United States Marine Corps (USMC). The Commandant of the USMC reports to the Secretary of the Navy and is also a member of the Joint Chiefs of Staff.

⁵⁴¹ This book will use the abbreviation CF to describe the Canadian Forces to avoid confusion with the use of CAF to describe the RAAF Chief of Air Force.

only member of the Commonwealth to unify its armed forces, and this significant organisational difference makes it worthy of review. 542

The second example comes from Israel, where the organisation of the Israel Defense Forces (IDF) also differs significantly from the Australian model. In Israel the Commander of the IDF is also the Chief of Army. The duality of the Commander IDF position means that the Chief of Air Force and the Chief of Navy are always subordinate to the Chief of Army. The other substantial difference is that the IDF has chosen not to create any joint headquarters to manage any aspect of operations or capability, which means that the IDF has adopted the *integrated approach* to jointness, where joint issues are managed directly by the Service headquarters. The IDF is internationally renowned for being a potent and highly capable defence force, so it is important to understand how its organisational structure affects its ability to cooperate on joint matters and to integrate Service capabilities.

6.1 Canadian Armed Forces

The colour purple is used to denote jointness because it is the colour created by mixing the dark blue of navy, the red of army and the light blue of air force. So purple was used to signify jointness because it was meant to represent the Services combining to create a more effective and efficient fighting force. But what happens when the Services are perceived by the government as being one of the major blockages to achieving the effectiveness and efficiencies of jointness? In Canada the solution was simple: get rid of the Services.

6.2 The necessity for unification

The Canadian Government's act to disestablish the individual Services and create one unified defence force, more commonly referred to as unification, is seen as one of the most extreme decisions ever taken in the pursuit of jointness. To most senior military officers it sends a shiver down the spine to even consider that a government would take such drastic action to solve the differences between the Services. While inter-service rivalry was a major consideration, it was not the only reason that the unification policy was introduced.

In the late 1950s, prior to the recession of 1957–1958, the Canadian Armed Forces went through a significant period of growth to meet numerous North Atlantic Treaty Organisation (NATO) commitments. Dr Stephen Harris, the Chief Historian at the Department of National Defence's Directorate of History and Heritage, describes how the incoming Liberal government in 1963 had a 'come to Jesus moment' when they realised that 'all of the growth was going to cost far

⁵⁴² David Pugliese, 'Canada's Air Force and unification – Air Force received the shortest end of the stick,' Ottawa Citizen, 23 January 2014, viewed October 2017` http://ottawacitizen.com/news/national/defence-watch/canadas-air-force-and-unification-air-force-received-the-shortest-end-of-the-stick

more than they could afford.'543 Harris also suggests that the Liberals found that there were three different defence policies or defence commitments that were confusing and somewhat mutually exclusive. Each of the Services had different commitments to NATO and used different wartime scenarios to justify acquisition requirements. 'So the Liberals saw confusion and they saw each of the Services basically using their own self-interest to make equipment demands of the centre, equipment demands that could not be afforded.'544

While financial factors were clearly a primary consideration, the confusion over Defence policy also pointed to a major problem of cooperation between the Services. The head of each Service was able to report directly to the Minister of National Defence, and this structure was viewed 'as ineffective because advice to the minister was seen as parochial and often too focussed on narrow single service issues; moreover, coordination between the three service headquarters was problematic.'545 There was a Chiefs of Staff Committee established to allow coordination between the Services but the heads of Service 'competed with each other for funds, while the Chairman of the Chiefs of Staff Committee vainly tried to referee.'546 What made things worse was that this inter-service conflict was not only occurring in the Chiefs of Staffs Committee, it was also being experienced in the 200 tri-Service committees that were created to support decision making between the Services.

This inability to cooperate was driven by predictable organisational behaviour whereby the 'three services functioned independently, sought to maximise their resource allocations and zealously guarded their own service interests'. This behaviour gave the Liberal's Minister of National Defence, Paul Hellyer, the perception that the Services could not be trusted to put individual loyalties aside and make quality decisions that gave primacy to an overall strategic position. What Hellyer wanted was an organisational structure that would cease 'continually trying to resolve problems and develop policies from a service perspective,'549 and one that stopped him from having to continually adjudicate on inter-service rivalries. 550 The Minister 'felt trapped by

⁵⁴³ Dr Stephen Harris, Interview, 28 August 2017

⁵⁴⁴ Ibid.

⁵⁴⁵ Allan English, Command and control of Canadian aerospace forces: conceptual foundations, Canadian Aerospace Warfare Centre, Trenton, Ontario, 2008, p. 45

⁵⁴⁶ JL Granatstein, *Who killed the Canadian military?*, Phyllis Bruce Books / Harper Flamingo Canada, Toronto, Ontario, 2004, p. 73

⁵⁴⁷ Douglas L Bland, Chiefs of Defence: government and the unified command of the Canadian Armed Forces, Brown Book Company Limited, Toronto, Ontario, 1995, p. 33, and Allan English, Command and control of Canadian aerospace forces: conceptual foundations, p. 45

⁵⁴⁸ Allan English and John Westrop, Canadian Air Force leadership and command: the human dimension of expeditionary Air Force operations, Canadian Aerospace Warfare Centre, Trenton, Ontario, 2007, p. 47

⁵⁴⁹ Daniel Gosselin, 'Hellyer's ghosts: unification of the Canadian Forces is 40 years old – part one, *Canadian Military Journal*, vol. 9, no. 2, 2008, p. 3

⁵⁵⁰ Stephen Harris, Directorate of History and Heritage, 'Review of studies on integration and unification from documents in DHH Archives', 6 February 1997, p. 3

conflicting service demands and was unable to decide any course of action because he had no source of competent, unprejudiced military advice.'551

If valid concerns over finance constraints and a dysfunctional strategic organisation were not enough to prompt Hellyer's action, many commentators believe that the Services' response to the Cuban missile crisis may have also been a factor. There are conflicting versions of what actually occurred when the US activated their North American Air Defense Command (NORAD) and NATO activation systems in response to the crisis. Most of the controversy centred on whether any of the Services responded to their US counterparts directly without seeking government approval. What is supported by a number of commentators is that Prime Minister John Diefenbaker was unhappy with the 'apparent lack of political control over the military,'⁵⁵² and the fact that the central military authorities had 'no reliable structure for commanding and controlling' the actions of the Services. ⁵⁵³ This incident merely added to the view that the Services had too much power and that their actions could not be adequately centrally controlled.

In combination, all these factors served to create a perception that there needed to be a significant change in the way the Canadian Armed Forces were managed and structured, and the Services were to carry most of the blame. Their pursuit of individual organisational goals had led to a number of seemingly conflicting, incoherent and unaffordable defence policies. Their lack of willingness to cooperate with each other had also created an inefficient management system that was rife with duplication and waste. Finally, the lack of effective centralised command meant that the Services' actions could not be effectively controlled or coordinated. It is unlikely that any of the Services was truly prepared for the scale of change that was about to be delivered.

6.3 The implementation of unification

Though Hellyer was seen as the driving force behind the reorganisation of the Canadian Armed Forces, the seeds for change had been sown earlier by the findings of the Royal Commission on Government Organisation, better known as the Glassco Commission. In relation to the CF, the Commission's final report raised three general concerns. These were: the forces were spending too much on administration and too little on procurement of new equipment; administrative and decision making processes were not as efficient as they might be; and there was still a question on how to assure strong civilian control of a military establishment.⁵⁵⁴ The Glassco Commission was widely quoted and 'provided authority for many defence decisions in the years to come.'⁵⁵⁵

⁵⁵¹ Douglas L Bland, Chiefs of Defence: government and the unified command of the Canadian Armed Forces, p. 2

⁵⁵² Ibid.

⁵⁵³ Allan English, Command and control of Canadian aerospace forces: conceptual foundations, p. 45

⁵⁵⁴ Michael E Sherman, 'A single service for Canada?', The Adelphi Papers, vol. 7, issue 39, 1967, p. 2

⁵⁵⁵ Douglas L Bland, Chiefs of Defence: government and the unified command of the Canadian Armed Forces, p. 12

While the Commission's findings were used to substantiate the reorganisation of the CF, they never specifically supported unification because they believed it was a concept that was primarily focused on operational command and that the unique environmental aspects of force generation justified maintaining some aspects of the individual Services.⁵⁵⁶

Despite the Commission's belief that it was essential to preserve the Services' domain expertise, Hellyer pushed on with the reorganisation and Bill C-90 'Integration of the Headquarters Staff' was passed and came into effect on 1 August 1964. This Bill was not the instrument that disestablished the Services, it was an initial step more commonly referred to as *integration* that 'directed the replacement of the separate service chiefs by a single Chief of the Defence Staff (CDS) and the creation of an integrated Canadian Forces Headquarters (CFHQ) to replace the three separate service headquarters.' The new headquarters structure that replaced the Service headquarters was organised along functional lines. The Services' domain specialist representation was reduced to three Director General (one-star) positions that worked under the deputy Chief of Operational Readiness. Much like the Australian example, Hellyer introduced the CDS position to reinforce central authority at the expense of the Services and to bring a national perspective to defence policy to allow for more effective and efficient planning. 559

The second phase of integration began in June 1965 with the announcement of a 'new integrated command structure' that would reduce the eleven Service-based commands down to six functional commands. ⁵⁶⁰ The new commands were Mobile, Maritime, Air Defence, Air Transport, Materiel and Training. Though the new headquarters were supposed to be based on function, and what would probably now be considered as joint, the practical allocation of Services between the commands meant that at least two of them maintained a heavy Service domination. This was because the vast majority of the Army was assigned to Mobile Command and, similarly, almost the entire Navy was assigned to Maritime Command. The only Service that was effectively split-up, in a functional sense, was the Air Force, which was assigned to all four combat focused commands (Mobile, Maritime, Air Defence and Air Transport).

At the completion of integration, the Canadian Armed Forces had taken major steps to address many of the concerns raised by the Glassco Commission and the Minister. The measures had created a greater degree of centralised control and planning, a significant amount of duplication had been removed, and the Services no longer had the strategic presence to enable them to

⁵⁵⁶ Michael E Sherman, 'A single service for Canada?', The Adelphi Papers, vol. 7, issue 39, p. 4

⁵⁵⁷ Allan English, Command and control of Canadian aerospace forces: conceptual foundations, p. 47

⁵⁵⁸ The three positions were Director General Maritime Forces, Director General Land Forces and Director General Air Forces. Vernon J Kronenberg, *All together now: the organisation of the Department of National Defence in Canada 1964–1972*, Canadian Institute of International Affairs, Toronto, Ontario, 1973, p. 49

⁵⁵⁹ Douglas L Bland, Chiefs of Defence: government and the unified command of the Canadian Armed Forces, p. 3

⁵⁶⁰ Allan English, Command and control of Canadian aerospace forces: conceptual foundations, p. 47

outwardly pursue their individual organisational goals. Despite this progress, Hellyer remained unsatisfied with the results.

Gosselin and Stone believe that Hellyer's main dissatisfaction came from the significant Service resistance he experienced during his efforts to introduce integration. The Services' intransigence convinced Hellyer that he would be unable to institutionalise the changes he was making while the last vestiges of the Services remained, and that unification would develop a sense of purpose and a sense of belonging to one single Force. Hellyer's belief in the importance of common identity to the process can be seen by its inclusion in the four stated objectives for Canadian Armed Forces reorganisation, which are provided in full at Table 12. For Hellyer, unification was the method by which he would create cultural change within the forces and finally reduce the competition, the lack of cooperation and the inefficiencies created by Service allegiances.

Table 12: Goals of Canadian Forces reorganisation⁵⁶²

Objective	Description	
Financial savings	Reduce overhead costs, by removing duplication of Service functions, to provide more funds for the acquisition of modern operational equipment.	
Increased operational effectiveness	Increase operational effectiveness through the provision of modern equipment to fighting units and support services, by reducing the conflicting loyalties and competition between the three services to enable a more objective analysis and assessment of defence requirements, and by the increased flexibility created by a unified force under the direction of a single Chief of Defence Force Staff.	
Common identity	Unification would create a common identity and engender a higher loyalty beyond that which is given to a particular Service, a loyalty to the entire force and its total objectives on behalf of Canada.	
Careers	Career opportunities would be improved by standardised career planning, there would be a broader base from which to identify development and appoint the best qualified individuals as the barriers created by the three Services would no longer exist.	

Based on Hellyer's belief that unification was essential to creating a cultural change within the CF, in April 1967 the government passed Bill C-243 'The Canadian Forces Reorganisation Act'. The primary purpose of this bill was to abolish the three existing Services and to create one unified Service known as the Canadian Forces (CF). Bill C-243 'created one force with one name,

⁵⁶¹ Daniel Gosselin and Craig Stone, 'From Minister Hellyer to General Hillier: understanding the fundamental differences between the unification of the Canadian Forces and its present transformation', *Canadian Military Journal*, Winter 2005–2006, p. 4

⁵⁶² Douglas L Bland, *Canada's national defence: volume 2, Defence organisation,* School of Policy Studies Queen's University, Kingston, Ontario, 1998, pp. 269–270

common uniform and common rank designations. On the passing of Bill C-243 it also became unacceptable for aviators and airwomen to refer to themselves as members of an air force; they now belonged to the 'air element' of the Canadian Forces.

As part of the integration and unification process, all basic training and professional development organisations would provide a unified course structure. Major Bill March, a historian with the RCAF, believes that the staff tasked to implement unification knew that the only way they were going to build a unified culture 'was to get them young, teach them unification from the beginning, and then periodically enforce it throughout their career by a unified staff school.'⁵⁶⁴ March also suggests that they were fully aware that this cultural change would take a considerable time to achieve because it would need at least two to three generations of serving members to leave the organisation.

Importantly, unified training does not mean the same as Australia's interpretation of joint training. Unified training results in every member of the forces getting the same training. It does not mean that the members from different domain (air, land and maritime) elements get an understanding of each other's domains. That greater understanding of other domains would be considered joint training. Throughout this example it will become very apparent that unified does not mean the same as joint.

Between 1963 and 1968 Hellyer fundamentally changed the structure of the Canadian Armed Forces in an attempt to create a more responsive, efficient and effective organisation. He believed that these goals could only be achieved through the abolition of the Services and the creation of a single unified force.

Hellyer's vision for the Canadian Forces did not stand the test of time. In 2011, Peter MacKay, the Minister of National Defence, announced the restoration of the historic designations of the three former services: the Royal Canadian Navy (RCN), the Canadian Army (CA) and the Royal Canadian Air Force (RCAF). ⁵⁶⁵ Before moving on to describe the process by which Hellyer's vision was slowly undone, it is worthwhile discussing the perceived issues with unification that resulted in its undoing.

⁵⁶³ Douglas L Bland, Canada's national defence: volume 2, Defence organisation, pp. 267-268

⁵⁶⁴ Major Bill March, Interview, 31 August 2017

Canadian Armed Force News Release NR 11.096, 'Canada restores historic identities of the Royal Canadian Navy, the Canadian Army, and the Royal Canadian Air Force', 16 August 2011, viewed November 2017 http://www.forces.gc.ca/en/news/article.page?doc=canada-restores-historic-identities-of-the-royal-canadian-navy-the-canadian-army-and-the-royal-canadian-air-force/hnps1ve8

6.4 The flaws of unification

Using the simplest of terms, and perhaps the most accurate, unification did not survive within the CF because 'it never took.' From the moment unification was introduced into the CF, and some would argue perhaps even before, significant organisational cultural and behavioural factors began working against its longevity. Some of these issues stem from the organisation's resistance to the imposed changes, but many of them were also structural faults that made the new unified force operationally ineffective.

6.4.1 The strength of Service culture

The dilemma for the proponents of unification in Canada is that there is no comparative unified or 'purple' culture, and it is unlikely there will ever be one. The services' cultures, by their simple existence rooted in history and traditions, and constantly reinforced and shaped by demands of combat effectiveness, are unconsciously generating centrifugal forces pulling apart unified approach to defence management, against which there is no strong counterbalancing culture – only rational ideas and concepts. Thus, the strong service idea manages to survive, and works its magnetism daily in the Canadian forces continuing to influence outcomes and policies.

Brigadier-General JPYD Gosselin⁵⁶⁷

Gosselin is not alone in his opinion of the cultural issues unification faced. Allan English suggests 'one uniform and one command structure did not create a single military culture in Canada.'⁵⁶⁸ Lieutenant General Bill Carr, who was a senior air element (the term given to areas of domain specialisation) officer during the initial stages of unification, said that 'as hard as Mobile Command and Maritime Command may have tried to suggest that the loyalty should be to the (unified) Command, you could not instil that into an airman, any more than you could instil it into a sailor. The loyalty was to the Service.'⁵⁶⁹

The primary problem with attempting to create a unified culture was 'the unwillingness of many in the service – and almost everyone who had once been in the military – to accept unification.'⁵⁷⁰ While many serving members understood and widely accepted the efficiencies created by integration, they did not accept the need to abolish the Services. As Gosselin suggests, this opinion is primarily fed by what he called the culture of the 'strong Service idea', which is 'a culture

⁵⁶⁶ Major Bill March, Interview, 31 August 2017

⁵⁶⁷ Daniel Gosselin, 'A 50-year tug of war of concepts at the crossroads: unification and the strong-Service idea', in Allan English, Daniel Gosselin, Howard Coombs and Laurence M Hickey (eds), Operational art: Canadian perspectives, context and concepts, p. 153.

⁵⁶⁸ Allan D English, *Understanding military culture*, McGill–Queen's University Press, Kingston, Ontario, 2014, p. 96.

⁵⁶⁹ Canadian Department of National Defence – Directorate of Heritage and History, Official Interview Lieutenant General Bill Carr, 18 April 2005.

⁵⁷⁰ J L Granatstein, Who killed the Canadian military?, p. 84.

that believes that a strong individual Service is *a priori* good and essential for national defence.'⁵⁷¹ This Canadian Service culture echoes the Australian 'pursuit of domain excellence' described in Chapter 5.

March pointed out the other major problem with unified culture when he suggested that it had 'no heroes, no history and no battle honours'. As discussed in Chapter 3, culture cannot be created from a single ideal or vision. To be pervasive it must have a depth that is created by organisational learning and history. The only members of the CF that did not have a strong Service culture during the introduction of unification were those recruits that joined the unified force. March believes that even those recruits did not get a strong unified culture because initial training tends to focus on 'divorcing the individual from civilian culture and indoctrinating them into a military culture.' Those recruits then entered their specialised domain and were immediately exposed to a stronger and more pervasive Service culture. Unified culture could not take hold because the serving members did not believe in it, and even if they did, it did not have the artefacts or the depth necessary to usurp Service culture.

With Service culture remaining the dominant factor inside the CF, it was almost impossible to change the loyalties of serving members and that meant 'unification would probably not eliminate parochialism.'573 The continued existence of the three Service cultures within the CF, and the inability of a unified culture to create Hellyer's higher loyalty, created a situation whereby interservice rivalry still existed and influenced decision-making processes.⁵⁷⁴

6.4.2 The Services did not cease to exist

Apart from the 'strong Service idea', perhaps the single biggest reason that Service culture was maintained within the CF during unification was because the Services did not cease to exist as identifiable organisations. English and Westrop believe that the 'centrifugal strong Service culture began to pull away' at parts of Mobile and Maritime Command's structures and that they 'increasingly became centres of influence for the land and sea elements of the CF, both in terms of creating cultural centres of gravity for those elements and in terms of representing those elements in the higher councils of the Department of National Defence'. Harris suggests that the commanders of Maritime and Mobile Commands became the 'atavistic Commanders of the Navy and Army', and that the organisations they led started to look a lot 'like the old Navy and

⁵⁷¹ Daniel Gosselin, 'A 50-year tug of war of concepts at the crossroads: unification and the strong-Service idea,' in Allan English, Daniel Gosselin, Howard Coombs and Laurence M. Hickey (eds), Operational art: Canadian perspectives, context and concepts, p. 147

⁵⁷² Major Bill March, Interview, 31 August 2017

⁵⁷³ Dennis W Tighe, *Unification of forces: the road to jointness?*, School of Advanced Military Studies United States Army Command and General Staff College, Fort Leavenworth, Kansas, 1991, p. 10

^{574 &#}x27;The organisation for defence and the Canadian forces', *The Adelphi Papers*, vol. 26, no. 214, 2008, p. 46

⁵⁷⁵ Allan English and John Westrop, Canadian Air Force leadership and command: the human dimension of expeditionary Air Force operations, p. 53

Army.'576 Bland agrees that 'Army and Navy continued under the guise of Mobile and Maritime commands respectively' and that 'these two organisations provided the rendezvous for service loyalties and the centres from which service politics could be played.'577

At the commencement of unification, the air elements did not have a similar over-arching Air Force structure because their units had been widely distributed among four of the functional commands. They did not have the same centralisation as the other domains and, for a time, that limited their ability to act as a Service. During this period of wide distribution, March suggests that Air Defence Command was considered the 'cultural centre for the air domain' because they were the 'pointy end of the stick' and 'if your understanding of air power involves dropping bombs and breaking things, they become the de facto leaders'. The distributed nature of the air element ended in 1975 when all CF air units were placed under the centralised control of the newly created Air Command, which was then able to act as the champion for the air domain and as the cultural centre for air element loyalties. 579

The creation of these 'domain heavy' commands generated conflicting loyalties that stalled the unifying effect that Hellyer had sought with his organisational restructure. The ability of the unified commands to act as cultural centres meant that they 'focused on the preservation of the Navy, Army and Air Force as separate institutions' and the pursuance of this separation would continue to 'exert strong dissenting pressure on the institution.'580 Though the Services may have been abolished, the creation of three domain specialist organisations re-created them in all but name. For a considerable period, it would be politically and organisationally unacceptable for them to refer to themselves as Services, but this did not stop them acting as the homes of domain expertise and culture. With Service cultures alive and well, there was little chance that a unified culture would successfully take their place.

6.4.3 The importance of domain specialists

Another major factor that significantly affected the ability of the CF to maintain the momentum of unification was the amount of specialist domain knowledge that was needed to feed the decision processes within the newly formed unified strategic headquarters. As discussed in earlier chapters, bureaucratic organisations will deal with complexity by creating areas of specialisation. The Services, as domain experts, are seen as extreme examples of this need to specialise. A large proportion of the decisions that need to be made within a defence force, over a wide range of subjects including such things as acquisition, training, personnel and safety, cannot be made

⁵⁷⁶ Stephen Harris, Directorate of History and Heritage, 'Not so deep purple anymore', 1997, p. 1

⁵⁷⁷ Douglas L Bland, *The administration of defence policy in Canada, 1947 to 1985*, Ronald P Frye & Company, Kingston, Ontario, 1987, p. 121

⁵⁷⁸ Major Bill March, Interview, 31 August 2017

⁵⁷⁹ Allan English and John Westrop, Canadian Air Force leadership and command: the human dimension of expeditionary Air Force operations, p. 32

⁵⁸⁰ Daniel Gosselin, 'Hellyer's ghosts: unification of the Canadian forces is 40 years old – part one', p. 6

without considering all of the domain-specific aspects of that decision. It is this need to have domain specialists integrated throughout a defence organisation's decision-making spectrum that unification failed to, or chose not to, take into account.

On this point, Gosselin and Stone observed that many of the staff structures implemented as part of unification were not suitable to deal with the complexity associated with a multi-domain organisation. They suggest that many of the organisational changes 'were done strictly to enhance administrative efficiency, rather than operational effectiveness, with ineffective organisation and procedures being imposed in the interests of conformity and that resulted in the considerable loss of single service perspective and expertise, vital to good decision-making.'581 Hood agrees with that assessment and suggests that unification failed to 'recognise the necessity for "special skills", which cannot be assimilated by a central hierarchy.'582

Recognising that the defence organisation needed specialist domain advice, two avenues to source the specialist input were normally pursued within the Canadian system. The first solution was to re-introduce a level of specialist advice within the strategic headquarters by adding domain-specific positions to certain critical functions within the organisation, examples of which will be provided in the next section of this chapter. The second solution was to seek domain-specific advice directly from Maritime, Mobile and Air (after 1975) Commands. March believes that the lack of domain expertise within the strategic headquarters led to the functional commands 'getting involved in stuff that would rightly have been the responsibility of a higher level headquarters.' Both of these solutions had an adverse effect on the ability of unification to take hold because both of them increased the influence of the old Services.

Hellyer realised that expert advice tied to individuals, such as Service chiefs who have independent institutional interests, would always pose a threat to the unified national strategy and structure he hoped to create.⁵⁸⁴ Hellyer's solution to that threat was to emphasise functions within the headquarters structure, rather than the importance of domains. This decision ignored the fact 'that the environmental factor is an important operational consideration that affects how combat elements fight wars.'⁵⁸⁵ Post-unification, the importance of expert domain advice became apparent, and to maintain the professionalism of the CF it had to be sought from either the functional commands or their representatives within the headquarters. As predicted by Hellyer,

⁵⁸¹ Daniel Gosselin and Craig Stone, 'From Minister Hellyer to General Hillier: understanding the fundamental differences between unification of the Canadian Forces and its present transformation,' p. 9

⁵⁸² John C Hood, *Defence policy and the unification of the Canadian Armed Forces: an analysis*, Wilfred Laurier University, Waterloo, Ontario, 1975, p. 11

⁵⁸³ Major Bill March, Interview, 31 August 2017

⁵⁸⁴ Douglas L Bland, Chiefs of Defence: government and the unified command of the Canadian Armed Forces, p. 74

⁵⁸⁵ Ibid., p. 78

this action increased the influence of the domain-focused commands and allowed them to pursue individual, not unified, policies and goals.

6.4.3 The unsuitability of unified training

This need for domain expertise would also seriously affect the ability of basic training to be delivered in a unified manner. As part of Hellyer's plan all recruit training for officers and other ranks was unified. While much of this unification was undertaken to save money through reducing the number of single Service training institutes, it was also supposed to be the mechanism through which a unified culture would be instilled into recruits. Unfortunately, this unified basic training was not seen as successful and provided the maritime, land and air elements with an excuse to provide their own training and the opportunity to instil their own culture.

Problems with unified training were identified very early on in the process, with a 1965 Minister's Manpower Study unable to determine the appropriate balance between environmental training and unified training and education.⁵⁸⁶ A task force which was asked to review unification issues 'observed that recruit training constituted the lowest common denominator of the various service requirements' and that common recruit training failed to 'fully meet the needs of operational personnel.'⁵⁸⁷

Harris believes this led to a situation where none of the elements was happy because all the individual domains saw a dilution of their parts of the training and that led to significant concerns over individual domain professionalism. The old Services were quickly able to point out training decisions made by the unified headquarters that had negative impacts on their operational effectiveness. As an example, the unified headquarters determined that field engineers and signallers only needed to be trained to 'survive' on the battlefield, rather than how to 'fight' as part of an integrated land battle, which went against the land element's basic principle of 'soldier first, tradesman second', that must apply not only to the combat arms but to 'all green tradesmen in the field army'.

The inability of unified training to meet basic operational needs gave the old Services a very identifiable issue to challenge the merits of unification. It provided the opportunity to point to one of unification's primary weaknesses: that it did not cater for the specialist needs of each of the domains and reduced the required levels of professionalism. This recognition of unsuitability allowed the Services to re-introduce basic environmental training, undertaken immediately after

⁵⁸⁶ Dr Stephen Harris, Directorate of History and Heritage, 'Review of studies on integration and unification from documents in DHH Archives', 6 February 1997, p. 8

⁵⁸⁷ DHH 81/747, Folder 25, An Appreciation of Recommendation #10: Environmental Indoctrination and Socialisation (n.d.). Note the use of the term 'service requirements' during a period of unification when the Services had been abolished.

⁵⁸⁸ Dr Stephen Harris, Interview, 28 August 2017

⁵⁸⁹ DHH 83/666, Folio 2, FMC briefing to Task Force on Unification – Management of Unified Military Occupation Classifications, November 1979

unified recruit training. The land element created battle schools to cater for distinctive trades and regiments. ⁵⁹⁰ The maritime element provided environmental training at the Fleet School because of the need for its tradesmen to be sailors first because 'everyone fights on a ship.' ⁵⁹¹ The air element eventually introduced a six-week indoctrination course to create practitioners of air power because they felt that the lack of environmental specific training needed to be corrected. ⁵⁹²

The poor quality of unified training gave the 'elements' an excuse to recreate their own domain-specific basic training, and also affected the relevance of the unified culture taught in common recruit training. Noting March's comments on the lack of depth associated with any unified culture, the brief exposure a recruit got to unified thinking must have very quickly been diluted, or even completely forgotten, when they immediately commenced specialised training within the confines of a more influential and pervasive Service culture.

6.4.4 Successes of unification

Integration and unification also had a number of key successes. A plethora of inter-service committees were abolished, almost 200 in total, which significantly reduced decision paralysis and improved the decision-making ability of the organisation. With a single Chief of the Defence Staff, decision times were theoretically cut by two-thirds. Unification was also reasonably successful at bringing about equipment standardisation and support service integration, which enabled a reduction in both duplicated services and facilities. Canada was also one of the first defence forces, under integration and unification, to go to a centralised shared services model for business activities such as public relations and financial and technical services.

A 1979 internal report from the Department of National Defence suggests that the 'single largest increase in effectiveness' had been created by a reduction of conflict, and that 'inter-service rivalry and competition for resources had virtually disappeared from the high staff levels.'595 The report does, however, point out that competition had been pushed down to the lower staff levels, presumably referring to the competition that was created between the functional commands. Harris does not agree that unification necessarily reduced competition at the strategic level. He believes that conflict between the 'domains' was reduced because of the increased ability of the central headquarters to say 'no' because they controlled the ability to write up or down the requirements or demand for a capability. The central headquarters was also able to exert strict

⁵⁹⁰ Joseph Bruce Varner, *Unification of the Canadian Armed Forces and the impact on inter-Service rivalry*, Acadia University, Wolfville, Nova Scotia, 1988, p. 70

⁵⁹¹ DHH 80/225, Folder 49, MARPAC briefing, 25 October 1979

⁵⁹² Major Bill March, Interview, 31 August 2017

⁵⁹³ Dennis W Tighe, *Unification of forces: the road to jointness?*, p. 15

⁵⁹⁴ Daniel Gosselin and Craig Stone, 'From Minister Hellyer to General Hillier: understanding the fundamental differences between unification of the Canadian Forces and its present transformation,' p. 9

⁵⁹⁵ DHH 80/225, Folder 12, The Canadian Armed Forces Integration/Unification: A 1979 Perspective. A paper prepared by the Department of National Defence, Ottawa, April 1979, pp. 19–20

control over the degree of influence created by limiting direct access to the Minister, and by being the only agency authorised to discuss policy externally.⁵⁹⁶

Though unification may have had some successes, the fundamental flaws pointed out in this section meant that it was never widely accepted within the CF, which resulted in the old Services continuing to look for opportunities to restore their organisational standing, influence and independence. What follows is the story of how successful they were in achieving those goals.

6.5 Unification slowly undone

As the previous section described, unification of the Services occurred in name only because individual Service cultures, and the loyalty they created, never actually disappeared. While unification may have been government policy, the old Services were always looking for opportunities to slowly undo those aspects of unification that limited their influence and organisational power. The senior officers were aware that they could not be seen to be going against government policy, so their plan would be to erode unification by increasing their influence, demonstrating the need for domain specialisation and slowly re-introducing the 'strong-Service idea'.

6.5.1 Ineffective unified headquarters

Though it may seem minor in nature, the first real win for the old Services came when it became apparent that Canadian Force Headquarters (CFHQ) could not function correctly without domain specialist advice. A study into the organisation of the Department of National Defence quickly demonstrates that, post-unification, it required multiple reorganisations and that each change in structure introduced an increase in the number of domain specialists.⁵⁹⁷ In the original integrated headquarters structure, which was primarily based on functions, there were no real areas of domain expertise. By June 1965, domain Director Generals (one-star officers) were introduced under the Chief of Operational Readiness. These specialist areas were then expanded to become environmental branches under the Deputy Chief of Operations in April 1966, and were further expanded in April 1968 when environmental directorates were introduced for equipment requirements and operational research under the command of the Deputy Chief of Force Development.

Without reorganisation, the only other way that CFHQ could have gained domain-specific advice would be to request it from the functional commands, and doing that would have started to undo unification because 'there seemed little point to the whole exercise if commanders and staff

⁵⁹⁶ Dr Stephen Harris, Interview, 28 August 2017

⁵⁹⁷ Vernon J Kronenburg, All together now: the organisation of the Department of National Defence in Canada 1964–1972, pp. 36–58

officers who held to service views and attitudes made the important decisions.'⁵⁹⁸ Incorporating domain specialists, who were effectively Service representatives, was the lesser of two evils because there was an assumption 'that they would eventually take a national view.'⁵⁹⁹

Many commentators believe that the inability of a unified headquarters to function correctly without domain-specific advice was made worse in 1972 when CFHQ was combined with the civilian departmental staff to create a more unified National Defence Headquarters (NDHQ).⁶⁰⁰ The primary complaint was that the new 'civilianised' headquarters, which shared authority equally between military and civilian staff, further reduced the ability of the headquarters to correctly consider domain-specific issues because of a 'reduction in the influence of the CDS in defence and military policy.'⁶⁰¹

While the introduction of domain specialists into the unified headquarters may have increased the influence of the old Services, it was the inability of both CFHQ and NDHQ to correctly consider domain-specific issues that would eventually have a larger effect on unification. Attempting to create an organisation capable of making all the decisions devoid of functional command advice 'may have become the undoing of unification rather than its salvation.' By giving the functional commanders – the old Services – the ability to demonstrate that the higher headquarters were not taking domain-specific issues into enough consideration, they could prove that domain specialists needed more influence in the organisation. This ability to point out a lack of domain influence became a significant factor and its effects are discussed in more detail later in the section.

6.5.2 The creation of Air Command

The next major milestone in generating an understanding that the CF needed domain-specialist organisation was the creation of Air Command in 1975. At the start of unification, the Navy and the Army were left pretty much intact and became Maritime and Mobile Commands respectively. The Air Force was split up between four functional commands, which meant they did not have the centralised command structure available to the other two commands. This lack of centralisation limited the air element's ability to create organisational influence, a situation that the senior officers of the air element were determined to change.

Harris believes that, in part, the air element's pursuance of the creation of Air Command was driven by its realisation that the Commanders of Maritime and Mobile Commands were starting

⁵⁹⁸ Douglas L Bland, Chiefs of Defence: government and the unified command of the Canadian Armed Forces, p. 77

⁵⁹⁹ Ibid.

⁶⁰⁰ Todd Fitzgerald and Michael A Hennessey, 'An expedient reorganisation: the NDHQ J-staff system in the Gulf War', *Canadian Military Journal*, vol.4, no. 1, Spring 2003, p. 23

⁶⁰¹ Douglas L Bland, Chiefs of Defence: government and the unified command of the Canadian Armed Forces, p. 17

⁶⁰² Ibid., p. 82

to be organisationally recognised as the professional heads of their respective elements. The need to match this level of organisational influence drove Air Marshal William MacBrien, the deputy commander of NORAD, to argue in 1968 that 'it was essential to establish a parallel Air Command to assume command and control of all air resources'.

The arguments used by the air element to justify the creation of Air Command are very reminiscent of the 'efficiency belief' used by the RAAF and RAF to justify their existence. The air element argued that the 'fragmentation of the air staff is inevitably causing inconsistencies and triplication in the formulation of air policy with a consequential and detrimental lack of overall control of this vital activity.'604 They also argued that the multi-purpose nature of new aircraft would require them to be centrally managed to gain the greatest efficiencies and that this 'is sufficient reason for a single unified air staff to be responsible for all aspects of air policy.'605 Efficiency was not the only argument being made by the air element: they also focused on the importance of creating an 'air identity' to boost morale and the ability to put 'forth the airman's viewpoint'.606

While the air element's arguments may have been convincing, Harris believes that the only reason the creation of Air Command got any traction was because CDS, General Jacques Dextraze, had always seemed 'to have been in favour of allowing the reappearance of at least some pre-unification symbols and structures (for all three elements). Dextraze's support for the creation of domain specialist organisations is easily identifiable from the following record of discussion, which took place at one of his own Commanders' conferences:

After first assuring the Commanders the CF is still an integrated and unified force, the CDS said that Air Command would be the focal point or 'home' of the air element members of the CF in the same way as Mobile Command is for land personnel and Maritime Command for sea element members. The CDS said that with the formation of Air Command, there will be three easily identifiable commands responsible for operations at sea, on the land and in the air ⁶⁰⁸

While it may have been Dextraze's belief that the existence of specialist domain organisations was essential for the effectiveness of the CF, he could not publicly go against government policy. When he was asked by the parliamentary External Affairs and Defence Committee whether the creation of Air Command was undoing unification, he justified his decision by suggesting that it was

⁶⁰³ Stephen Harris, Directorate of History and Heritage, 'Review of studies on integration and unification from documents in DHH Archives', 6 February 1997, p. 7

⁶⁰⁴ DHH 77/529, File 5, A Staff Paper on the Air Component of the Canadian Armed Force in the 1980s, January 1975, p. 1

⁶⁰⁵ Ibid., p. 13

⁶⁰⁶ DHH 77/529, File 5, Air Command Structure, January 1975, pp. 2–3 and DHH 77/529, File 5, Aide Memoire Prepared for LTGEN WK Carr DCDS: Air Command, January 1975, p. 1

⁶⁰⁷ Stephen Harris, Directorate of History and Heritage, 'Not so deep purple anymore', p. 16

⁶⁰⁸ DHH 77/529, File 21, Chief of the Defence Staff Commanders' Conference: Summary Record of Discussion, 28 January 1975, p. 1

'carrying on unification' because it was 'unifying all the air elements that were separated within the Armed Forces.' Dextraze also used many of the efficiency and morale arguments created by the air element, but consistently emphasised that this decision was not undoing unification.

Whether Dextraze believed that creating Air Command was not undoing unification is open to debate, but it is very clear that Harris believes it was the beginning of the end for unification. To the early architects of unification, the existence of a separate Air Command was something to be avoided because it 'attacked the principle of a functional organisation' and with its creation the 'three distinct environments (and the three distinct environmental commands) were now the foundation of the CF organisation, and that quite simply opened the floodgates for further change.' Porter agrees with Harris and suggests that by creating Air Command the 'Air Force' was reborn.

By reinforcing the need for domain specialist organisations within the CF, the creation of Air Command is considered a seminal moment in the undoing of unification, but it is by no means the last and tends to pale into insignificance when compared to the political manoeuvring and decisions that were to follow in the next two decades.

6.5.3 The politics of unification

The unification policy was introduced by the Liberal Party of Canada, so when the Progressive Conservatives were elected in 1979, the Minister of National Defence, Allan McKinnon, decided to review the policy because his 'priority was to diminish, if not eradicate completely, the concept of unification in the CF.'⁶¹² The Task Force on Review of Unification of the Canadian Forces was formed on 6 September 1979 and it was tasked to 'examine the merits and disadvantages of unification of the Canadian Forces and at the same time to provide comment on the unified command system.'⁶¹³

While the Task Force looked at a number of areas, the most relevant area of investigation was the decision-making processes within NDHQ. As discussed earlier the review of this area gave the functional commands, or elements, the opportunity to point out the lack of domain-specific knowledge within the headquarters and their inability to influence decisions. Lieutenant General George MacKenzie, the Commander of Air Command, defined the major problem as 'the inability of the functional commanders and their staffs to effectively influence important issues being considered in NDHQ.' The problem was caused by 'the absence of an adequate and

⁶⁰⁹ DHH 77/529, File 28, House of Commons, External Affairs and National Defence Committee, Minutes, 27 May 1975

⁶¹⁰ Stephen Harris, Directorate of History and Heritage, 'Not so deep purple anymore', pp. 3 and 17

⁶¹¹ Gerald Porter, *In retreat: the Canadian forces in the Trudeau years*, Deneau and Greenburg Publishers Ltd, Ottawa, 1978, p. 183

⁶¹² Douglas L Bland, Chiefs of Defence: government and the unified command of the Canadian Armed Forces, p. 101

⁶¹³ Douglas L Bland, *Canada's national defence: volume 2, Defence organisation,* School of Policy Studies, Queen's University, Kingston, Ontario, 1998, p. 263

formal interface between functional commands and NDHQ' and by the physical separation of the commanders from Ottawa. He also complained that NDHQ was making 'decisions that significantly affected Air Command without adequate technical expertise and for which they were not operationally accountable.'614 The elements were not the only ones pointing out the issue, with senior civilian staff from within NDHQ also identifying the same concern. The Assistant Defence Minister Policy observed that over the years NDHQ had suffered a 'considerable loss of single service perspective and expertise which is vital to good decision-making.'615

In relation to the importance of a Service or domain perspective within the decision-making processes of NDHQ, the Task Force had two conclusions and made two associated recommendations, which are summarised at Table 13.

Table 13: Task force on review of the unification of Canadian forces – domain perspective conclusions and recommendations⁶¹⁶

Conclusion	Related recommendation
There is a lack of environmental input into the decision-making process at the senior National Defence Headquarters level.	20. The Task Force recommends as an urgent priority that the commanders of commands be made members of the Defence Council and the Defence Management Committee and that measures be taken to ensure their influence is fully recognised in matters pertaining to operations, personnel administration and support to the operational forces.
There is a lack of environmental direction to the National Defence Headquarters central systems.	21. If recommendation 20 proves insufficient to solve the problems identified by the Task Force it is further recommended that three environmental heads of Service be established at National Defence Headquarters to be responsible to the Chief of the Defence Staff from the command of the Navy, Army and Air Force.

If the Task Force's recommendations were implemented, there may have been a significant winding back of unification, but this outcome was made less likely when the Liberal Party was re-elected during a snap election in 1980. The incoming Liberal government then had a problem in determining what action to take in response to the Task Force's report and recommendations. As unification was their policy, they could not really act on the recommendations because that would be tantamount to agreeing it was a failed policy, but they also did not have any real grounds to completely dismiss the recommendations. Bland believes that the Minister also thought he should be supporting the functional commanders, who had gained significant popular public

⁶¹⁴ Douglas L Bland, Chiefs of Defence: government and the unified command of the Canadian Armed Forces, p. 104

⁶¹⁵ DHH 80/225, Folder 24, Status briefing for MND-ADM (Pol) submission, 17 November 1977

⁶¹⁶ Douglas L Bland, Canada's national defence: volume 2, Defence organisation, pp. 323-342

support. The compromise solution was to announce that the commanders would join the Defence Council and the Defence Management Committee on a trial basis and the remainder of the recommendations would be reviewed in slow time. 617

Unsurprisingly, the partisan group reviewing the recommendations found that the original Task Force had not adequately defined the problem, and when they had completed the task of problem definition, it led to a number of 'different conclusions and to a broader number of options in disposing of the Task Force's recommendations. In relation to the need for an increased Service perspective at NDHQ, the reviewers agreed with the original Task Force's concerns over the centralisation of command and control and accepted that the environmental presence and influence in NDHQ needed to increase. However, they changed the original recommendation to suggest that it could be solved by either moving the commanders of the functional commands to Ottawa, or by increasing the amount of environmental staff representation within NDHQ.

With the functional commanders acting more and more like Service representatives, Gosselin believes that their presence in Ottawa allowed them to 'progressively reassume some of the power and influence of the pre-unification era.' Blanch disagrees and suggests that the commanders' influence was still blunted by the ability of NDHQ to control finances, committee agendas and access to the Minister. Harris agrees with Blanch that the recommendations were only really 'tweaking' at the edges of unification, but he believes that their overall effect was dramatically impacted by another period of political change in 1984.

In 1984, the Progressive Conservative Party was once again elected, and because of the party's strong belief in traditionalism and heritage, had promised, among other significant defence-related commitments, to provide a 'greater tri-service identity and distinctive Service uniforms.'623 Dillon believes that this change of political intent also made it acceptable to 'refer to the Mobile, Maritime and Air Commands as the Army, Navy and Air Force, respectively.'624 Harris remembers this period and how it suddenly became acceptable to start using Service descriptions rather than the environmental descriptions of maritime, land and air.625 He believes that this increased recognition 'empowered' the Services and allowed them to insist on a greater level of influence and participation in strategic decision-making.

⁶¹⁷ Douglas L Bland, Canada's national defence: volume 2, Defence organisation, pp. 343–344

⁶¹⁸ Ibid., pp. 345–346.

⁶¹⁹ DHH 91/91, Report of the Review Group on the Task Force on Unification, August 1980, pp. 11–12

⁶²⁰ Daniel Gosselin, 'Hellyer's ghosts: unification of the Canadian Forces is 40 years old - part one', p. 7

⁶²¹ Douglas L Bland, Canada's national defence: volume 2, Defence organisation, p. 349

⁶²² Dr Stephen Harris, Interview, 28 August 2017

⁶²³ RB Byers, 'Canadian security and defence: the legacy and the challenges', *The Adelphi Papers*, no. 124, 1986

⁶²⁴ Terrence M Dillon, *The unification of the Canadian Armed Forces: a recipe for disaster*, Alliant International University, San Diego, CA, 2003, p. 30

⁶²⁵ Dr Stephen Harris, Interview, 28 August 2017

Though there was a significant amount of political interplay during this period of Canadian defence history, it is apparent that the organisation had accepted that it needed domain-specific advice to be able to function effectively and to inform strategic decision-making. While it may not have been agreed what organisational form that domain-specific advice should take, it was very clear that the environmental commanders believed it should come from them. Almost a decade later, another change in defence policy removed any lingering doubt about the role of the domain commanders.

6.6 The Services re-created

After almost 30 years of unification there was probably a reasonable expectation that one of its primary goals, the reduction of Service influence and thinking on defence policy, should have been at least partially achieved. Any lingering doubt over the Canadian defence organisation's continued desire to have Service-like representation and organisations was removed in the mid-1990s, during another significant structural reorganisation.

The 1994 Defence White Paper announced personnel cuts of 33,800 by the end of March 1999, and to achieve this reduction one of the measures also announced was 'cuts to the Department of National Defence headquarters, both in number and size, and the elimination of one layer of headquarters.'⁶²⁶ In terms of unification, the obvious question then became how would the environmental domains be represented in the new organisational structure. The Management, Command and Control Reengineering Team (MCCRT) was formed in January 1995 to answer that question and to 'recommend a new command and control structure.'⁶²⁷

In December 1994, at a meeting of Canada's senior defence leadership, additional guidance was provided to the MCCRT.⁶²⁸ Within this guidance, it becomes obvious how much unification had failed to reduce the culture of the 'strong-Service idea'. The MCCRT was told to assume that the 'Chiefs of Environment' would move to the strategic headquarters in Ottawa and the functional commands would be eliminated. They were also told to work on the principle that these 'Environmental Heads' would provide Service-specific advice and direction to include doctrine, training standards, readiness, evaluation, force generation and environmental resource oversight.⁶²⁹

Under the new command structure many of the support services would remain unified but a greater level of service delivery control would be given to the 'Environmental Chiefs of Staff'

⁶²⁶ DHH 95/119, Box 5, File 144, VCDS – Management, Command and Control, Re-engineering (MCCR) Project Communications Strategy, 27 September 1995

⁶²⁷ Ibid.

⁶²⁸ This guidance was provided for the incoming MCCRT.

⁶²⁹ DHH 95/119, Box 2, File 17, Management, Command and Control Re-engineering Team, Phase One Report, 1 March 1995

(ECS).⁶³⁰ Through this guidance the CF re-created the Service headquarters in all but name. It was still politically unacceptable to refer to the environments as Services, but the creation of ECSs was a fairly poor way to disguise the return of the Service chiefs. This return of the old Services was made possible by the gradual return of the 'strong-Service idea' to the entire defence organisation, and the fact that the military officers never actually let go of their strong Service loyalties. Harris believes that this solution worked for both the environmental commanders and the CDS, because the environmental chiefs became the primary providers of strategic advice, and for CDS it brought the environmental chiefs back to Ottawa where he could reduce their independent tendencies and increase his ability to exert his authority.⁶³¹

Though the environmental commanders had been exerting a great deal of organisational influence prior to the restructure, Granatstein believes that when the environmental chiefs returned to Ottawa in the 1990s they 'began to acquire almost the powers and perquisites their predecessors had had before unification became the law in 1968'. The environmental chiefs' power was further increased when they were given control over large single operating budgets which 'further reinforced their influence and autonomy', and gave them 'near veto power over most key CF agenda issues'.

Though many commentators might argue that the competition between the environments never really stopped, there is a strong belief that the increased power of the environmental chiefs created a situation where 'fighting over budgets and the disputes about strategic thinking (or the lack of it) were as sharp as they had ever been.'634 Bland believes that the environmental chiefs 'invariably and inevitably work to enhance the position and power of their commands' and that this 'traditional reaction and effort inspire Service rivalries that are responsible for service-biased distortions in the national policy process.'635 In 2005, almost 40 years after the introduction of unification, Gosselin wrote the following description of how the environmental chiefs continued to act:

Canadian Service chiefs maintain a Service focus to minimise risks for the future especially in the face of continuing government policy inconsistencies and an uncertain future, because they clearly view their role as one of trustee of capabilities of their Service, and because they truly and professionally believe that their Service is the best place to contribute to Canada's national defence. ⁶³⁶

⁶³⁰ DHH 95/119, Box 2, File 44, Project C-15 Roles and Responsibilities in Force Generation – DMC Update, 18 October 1995

⁶³¹ Dr Stephen Harris, Interview, 28 August 2017

⁶³² JL Granatstein, Who killed the Canadian military?, p. 93

⁶³³ Daniel Gosselin, 'Hellyer's ghosts: unification of the Canadian Forces is 40 years old - part one', p. 7

⁶³⁴ JL Granatstein, Who killed the Canadian military?, p. 93

⁶³⁵ Douglas L Bland, Chiefs of Defence: government and the unified command of the Canadian Armed Forces, p. 169

⁶³⁶ Daniel Gosselin, 'A 50-year tug of war of concepts at the crossroads: unification and the strong-Service idea', in Allan English, Daniel Gosselin, Howard Coombs and Laurence M Hickey (eds), Operational art: Canadian perspectives, context and concepts, p. 163

While the Services technically do not exist under Canadian law, with the Canadian Forces being the only legislated entity, the return of their pre-unification names in 2011 perhaps signifies the reality that they were never truly abolished. During the announcement of the re-naming the Minister of National Defence said, 'this decision restores the original historic identities while retaining the organisational benefits of unification.' Clearly those benefits no longer included a change in organisational behaviour to reduce the effects of inter-service rivalry, or the creation of a single coherent defence policy free from individual Service influences and bias.

6.7 Unification is not jointness

If unification was not successful in reducing the organisational behaviour of the Services, or in creating a unified culture, did it enable an increased level of jointness within the CF? For the majority of uninformed external observers, the presumption has predominately been that unification and jointness were the same thing: by removing the three Services the Canadians must have created a single 'joint' force. Unfortunately, that presumption is incorrect: unification and jointness are not interchangeable terms, and the abolition of the Canadian Services did not result in the creation of a joint force.

English suggests that the reason why unification did not bring a greater degree of jointness is because the environments 'continued to carry out the same functions with the same equipment as the previously separate services had done' and, because those forces were mostly assigned to NATO or other higher formations, 'there was no comprehensive plan for the elements of the CF to act together as a joint force'. March agrees with English and suggests that Canada never required a joint headquarters because they were 'never challenged by a major operation, with most of its commitments being NATO-based or involving smaller scale peacekeeping operations'. What this resulted in was the inability of Canada 'to test the nation's ability to do joint because they aren't undertaking a national joint activity'.

Harris believes that 'conversations on jointness occurred late in the CF because it got lost in the antipathy created by unification' and were based on a false belief that 'they were already joint'. Harris goes further to suggest that unification gave people an excuse to 'ignore joint' because they were annoyed by the budget cuts associated with it. March agrees and suggests 'unification was acceptable until the requirement to be operationally joint demonstrated the shortcomings of

⁶³⁷ Canadian Armed Force News Release NR 11.096, 'Canada restores historic identities of the Royal Canadian Navy, the Canadian Army, and the Royal Canadian Air Force'

⁶³⁸ Allan D English, Understanding military culture, p. 121

⁶³⁹ Major Bill March, Interview, 31 August 2017

⁶⁴⁰ Ibid.

⁶⁴¹ Dr Stephen Harris, Interview, 28 August 2017

this approach. He also suggests that unified organisations were not necessarily serving the joint requirement because 'unification doesn't really mean joint.'642

It is generally agreed that Canada's participation in the first Gulf War, known as Operation FRICTION, was the first true indication that unification had not created a joint force because 'it took a sudden requirement for joint operational planning to uncover many of the problems'. Operation FRICTION was the first large scale operation where the CF would need to deploy a joint force. The organisation realised that it would need to transform to be able to support this type of operation through the creation of a joint staff inside the Deputy Chief of the Defence Staff's organisation. The elevation in the importance of jointness was also created during the Gulf War because the CF's officer corps had to become more interoperable with their American counterparts, which resulted in the adoption of the American doctrine and joint war-fighting philosophy. 644

A 2005 quote from a Commandant of the Canadian Forces College demonstrates the fundamental difference between the two concepts, 'for the CF, unification died at some intermediate point in the late 1990s, and jointness was born'. Gosselin suggests that 'jointness has become the organising principle for the new CF, resulting in more integration of CF-wide and tri-Service organisations, and adjustments to defence decision-making processes'. He also believes that the pursuit of jointness is, in reality, 'just another differently wrapped version of the same progressive ideas that originally drove Hellyer to strive for a unified CF'.

Gosselin is correct in that in some respects unification and jointness do share some common purposes. They are both trying to create a greater level of cooperation between the war-fighting domains to make military operations more effective and efficient. They are also both trying to remove potential duplication within the Services and provide a jointly managed service when it is more efficient to do so. Despite the similarities, there is one glaringly obvious difference between the two concepts. Jointness respects the need for domain excellence and the organisations that are needed to create it. The primary focus of jointness is to integrate specialist Service domains. Unification, as it was applied in Canada, respected neither the need for individual domain expertise nor the organisations essential to its creation. Ultimately that lack of respect became its major failing and the momentum for its downfall.

⁶⁴² Major Bill March, Interview, 31 August 2017

⁶⁴³ Todd Fitzgerald and Michael A Hennessey, 'An expedient reorganisation: the NDHQ J-staff system in the Gulf War,' p. 24

⁶⁴⁴ Allan D English, Understanding military culture, p. 122

⁶⁴⁵ Aaron P Jackson, *Doctrine, strategy and military culture: military-strategic doctrine and development in Australia, Canada and New Zealand, 1987–2007,* Canadian Forces Aerospace Warfare Centre, Trenton, Ontario, 2013, p. 141

Daniel Gosselin, 'A 50-year tug of war of concepts at the crossroads: unification and the strong-Service idea,' in Allan English, Daniel Gosselin, Howard Coombs and Laurence M. Hickey (eds), Operational art: Canadian perspectives, context and concepts, p. 172

⁶⁴⁷ Ibid.

6.8 Unification as an approach to jointness

Theoretically, unification could have created a better joint outcome for the Canadian Armed Forces through the reduction of inter-service rivalry and the removal of independent Service outlooks. The unification approach was unsuccessful in achieving jointness for three main reasons.

Firstly, the concept of unification was never culturally acceptable to the fighting men and women of the Canadian Forces. While many of them agreed with the efficiencies and effectiveness created through integration, it is almost universally agreed that abolishing the Services through unification was a cultural red line. The belief that a 'non-existent' unified culture could replace an extremely strong Service culture and its associated loyalties was either incredibly naive or purposely ignored. Much like their Australian counterparts, the Canadian Forces believe that the defence of their nation is best served by the Services pursuing their individual domain excellence and, when required, integrating to fight together as a joint force.

Secondly, unification ignored the need for domain excellence and the organisations that support it. While clearly linked to the previous cultural belief, Canada's experience demonstrates that you cannot create an effective defence force if you do not allow domain excellence to guide centralised decision-making processes. The requirement obviously opens up that process to the undue influence of Service preferences, but that does not mean that domain experience is not needed. The biggest issue for unification in Canada was trying to balance the indisputable need for domain input with the fact that that also gave Service-like organisations both power and influence. The downside may be significant organisational behavioural concerns, but a military organisation cannot be effective if it does not respect the need for some degree of domain specialisation. The independent organisational behaviour of the Services may portray a distant lack of jointness, but a defence force cannot be truly effective in a joint fight without the Service's continual pursuit of a force optimised for their war-fighting domain.

Finally, unification did not enable jointness because it really was not a joint concept. Unification was an organisational concept that removed the Service structures and replaced them with functional commands, but it never introduced any of the doctrine, structure or training that would then lead to a recognisable joint force. This is not particularly surprising considering that unification commenced in 1968 and most modern militaries did not start adopting jointness as a concept until the 1980s or 1990s. Unification was ahead of its time, and for that reason it would only ever be a method to reorganise the Canadian Armed Forces, rather than a joint concept to increase military effectiveness. If the Canadians had commenced unification in 1988, rather than 1968, it would have most likely been called jointness and have had the doctrinal concepts to support it.

6.9 Israel Defence Forces

Brigadier General Eran Ortal, the head of the operational-thought team at the Israeli Dado Centre for Interdisciplinary Military Studies, summarised the historic influences of conflict on the Israel Defence Forces (IDF) when he stated that 'first there was the war, and then there was the

IDF.'648 Ortal's comment reflects the Israeli belief that their nation has been under threat from the moment it was created in 1948, with the Israeli War of Independence commencing in November 1947. Since its creation, the IDF has undertaken numerous operations to counter serious military threats to the survival and well-being of the Israeli nation. While the IDF has had some military failures, the vast majority of its operations have been effective and decisive. This success in conventional military operations has created a perception within other Western militaries that the IDF must enjoy a high degree of inter-service cooperation. Also, due to the fact that the IDF regularly faces a real and significant military threat, it is presumed that the spectre of this peril would engender an increased need to create a higher degree of cooperation between the Services.

Successes in military operations, combined with operational necessity, have led many casual observers to believe that the IDF must have fully embraced a traditional understanding of jointness. This case study demonstrates that is not the case. A reasonably unique national context has seen the IDF create a military force that has chosen not to adopt many of the joint structures and processes normally associated with a modern military force. Historically, this has not necessarily hampered the IDF's operational effectiveness, but more recent operations have begun to show that their alternative approach to jointness might also suffer from a lack of cooperation between the Services.

6.10 Integrated approach to jointness

The IDF has adopted an organisational structure that is a practical example of an *integrated approach* to jointness. To an external observer the relationships between the Israeli Services are, at times, difficult to comprehend, but it is obvious that they have chosen not to adopt any of the traditional joint structures created by most Western militaries. It would be incorrect to suggest that the Chief of Staff of the IDF is not a joint position, but it is important to understand that the most senior officer within the IDF is also always the Israeli Army's Chief of General Staff. The duality of the position remains, regardless of who is placed in the IDF's Chief of Staff position. Notably, an Israeli Air Force (IAF) officer, Lieutenant General Dan Halutz, became the Army's Chief of General Staff when he was appointed to the IDF's top position in 2005.

To an external observer, the dual-hatted nature of the Israeli Chief of Staff creates some confusion over the status of the Israeli Navy and Air Force. The duality of the Chief of Staff position suggests that the Services within the IDF do not share the same joint organisational standing, with the other two Services being subordinate to the Army. This subordination of the maritime and air domains goes against one of the main principles of jointness, where each domain is considered an equal partner in creating joint military effect. The theoretical concern raised over the Israeli model is that the subordinated Services are not able to pursue their own domain excellence under the (potentially) restrictive stewardship of the dominant Service.

⁶⁴⁸ Brigadier General Eran Ortal, Interview, 14 August 2017

Ortal suggests that when you look at the IDF from a purely structural perspective it would appear that the IAF is subordinate to the Israeli Army, but he does suggest that that understanding does not take into account the politics of organisational power. Ortal explained that while the IAF may appear subordinate to the Army, their ability to create a strong political influence allows them to act in an independent manner, a position supported by Brigadier General Ephraim Segoli, a member of the Fisher Institute for Air and Space Strategic Studies, who suggested that the IAF were able to pursue their independent capabilities because they were organisationally strong. So while the IDF's organisational structure might not appear particularly joint because two of the Services have been placed in subordinate positions, the organisational influence created by the IAF has meant that it has not necessarily been restricted in its ability to act independently.

While the subordination of the maritime and air domains within the IDF is unique, it does not necessarily demonstrate a particularly *integrated approach* to jointness. What makes that approach more apparent is when the manner in which the IDF conducts operations is analysed. Unlike most modern Western militaries, the IDF has not created a joint organisation to run operations and they do not appoint a joint force commander. The Chief of Staff runs operations by using extant Service chains of command to plan and conduct activities. While this approach is particularly unusual, the uniqueness of the Israeli context makes it more understandable.

Unlike most Western militaries, the IDF conducts nearly all its operations from within Israel, with the sole purpose of defending its national borders. Unlike Australia, it does not deploy military forces to multiple locations overseas and it does not participate in international coalitions. This fact, coupled with an understanding that Israel is a geographically small nation, means that they are unlikely to be managing large-scale multiple operations in geographically disparate locations. To emphasise this difference, Dr Eado Hecht, a lecturer at the Israeli joint staff college, compared the size of operations in Israel to those occurring in Afghanistan and pointed out that Israel is smaller than Helmand province and that the 'majority of Israeli operations occurred at the equivalent of a brigade level.' Hecht suggests that the scale of Israeli operations means they do not need a separate joint force commander because they already have one, the 'Chief of Staff of the IDF'. In Israel, the Chief of Staff acts as the joint force commander and coordinates the efforts of the Services to plan and execute operations, remembering that the duality of the Chief of Staff's position already makes them responsible for land force operations.

This *integrated approach* to jointness continues in the planning and execution of operations, with both of those tasks being conducted within the Services, though the land and air environments have a very different approach to how that is achieved. Colonel Shai Gilad explained that the land forces use a decentralised approach to operations whereby the Chief of Staff nominates one of the regional commander's headquarters (North, South or East) to lead an operational campaign, but the Chief of Staff does remain intimately involved in the land campaign because of their

⁶⁴⁹ Brigadier General Eran Ortal, Interview, 14 August 2017

⁶⁵⁰ Brigadier General Ephraim Segoli, Interview, 16 August 2017

⁶⁵¹ Dr Eado Hecht, Interview, 17 August 2017

responsibilities as head of the Army.⁶⁵² The IAF follows the efficiency belief of most modern air forces and keeps its planning and execution of operations heavily centralised. Gilad described how centralisation is the most sensible approach for the IAF because it meant air platforms could be more efficiently used in multiple areas of operations, and that Israel's size meant that the country's air operations ran like an 'aircraft carrier'. While most air forces run a centralised form of command and control, Hecht suggests that the IAF's ability to be completely centralised is more effective than most other forces because 'Israel is so small that the air force commander in Tel Aviv can literally talk to every airborne aircraft'.

Ortal explained that this *integrated approach* meant that the IDF never really created a joint campaign plan. While the Chief of Staff kept an overall understanding of the campaign's objectives, the land and air elements planned and executed the campaign in relative isolation. Gilad explained that coordination and deconfliction between the air and land campaigns was achieved in one of two ways. Firstly, the operational areas for each Service are geographically defined and separated to reduce the potential for fratricide, with the air forces needing authorisation to operate in the land force's area of responsibility. Secondly, an air cooperation unit was created to integrate and coordinate the IAF's operations into the land component's scheme of manoeuvre. Hinting at the tension that normally exists between land and air forces, Gilad also suggested that the unit had purposely been called 'cooperation' rather than 'support', because 'support' implied a level of subordination.⁶⁵⁴

Within modern militaries the IDF remains unique in adopting an *integrated approach* to jointness, where the Services maintain direct responsibility for all aspects of war-fighting and no joint structures have been created to harmonise their efforts. While most commentators interviewed suggested that this was a practical approach because of Israel's unique geographic position and security context, it does raise the question of whether this is successful in creating the joint effects that the IDF requires. In answering that question, it becomes apparent that the success of the Israeli *integrated approach* depends very much on the nature of the conflict.

6.11 Success in conventional conflict and deterrence

The IDF's success in conventional conflict is neatly summarised by Matthew Green who wrote:

since winning its independence in 1948, Israel has fought six major wars against either one Arab enemy or a coalition of them. Despite staggering inequalities in terms of men and equipment, Israel has managed to prevail in each of these conflicts, in large measure because of the excellence of its defence forces.⁶⁵⁵

⁶⁵² Colonel Shai Gilad, Interview, 15 August 2017

⁶⁵³ Dr Eado Hecht, Interview, 17 August 2017

⁶⁵⁴ Colonel Shai Gilad, Interview, 15 August 2017

⁶⁵⁵ Matthew John Green, *The Israeli Defence Forces: an organisational perspective*, United States Navy, Naval Postgraduate School, Monterey, CA, 1990, p. 1

Over four decades from the 1940s to the 1980s the IDF fought in six major conventional conflicts and never experienced defeat.⁶⁵⁶ Though the IDF were never defeated in conventional conflict, their ability to achieve victory quickly varied depending on critical factors such as Israel's stated national goals, the actions of their enemy and the relative difference in technological advantage. The best practical demonstration of this difference in their ability to achieve a decisive victory occurred in two conflicts in the late 1960s. During the 1967 war, the IDF were able to defeat the Arab coalition in six days because of the IAF's technological and tactical superiority over their Arab air force counterparts. The IAF were able to achieve air supremacy in a single day, which then allowed them to apply significant air power to support the land battle. The 1969–1970 War of Attrition lasted for more than a year because the Egyptian forces they were fighting showed significant improvement in the professionalism of their people, technology and plans.⁶⁵⁷

Dima Adamsky explained that it was vital for the IDF to be decisive in conventional warfare because of Israel's unique strategic circumstances. While the Arab countries could afford to lose conventional conflicts, a loss for Israel would probably mean annihilation for the nation. Israel's small size, in terms of both land mass and population, meant that they could not afford to allow conventional conflicts to occur on Israeli territory and those battles needed to be won in a decisive manner. Brilliance in conventional conflicts was essential because 'casualty aversion and socioeconomic exhaustion demanded the attainment of victory as quickly as possible'.

The IDF's reputation was not only built on its ability to achieve victory in conventional campaigns, it has also had a string of limited operations that demonstrated tactical brilliance and daring. In 1976, the IDF meticulously planned and executed a rescue operation at the Entebbe International Airport, Uganda, where it successfully rescued 97 passengers who were being held by Palestinian terrorists who hijacked Air France 139 en route from Tel Aviv to Paris. On 7 June 1981, the IDF, using eight IAF F-16 Fighting Falcons, successfully attacked the Osirak nuclear power plant in al-Tuwaitha, Iraq, to remove its ability to provide the Iraqi forces with weapons-grade plutonium. Finally, on 1 October 1985, ten IAF F-15 Strike Eagles flew the entire length of the Mediterranean, undetected by friend or foe, to destroy the PLO headquarters at the resort beach of Hammam Lif in Tunisia.

Ortal believes that a historical view is the best way to determine how successful a war-fighting concept is, and suggests that in terms of Israel's conventional campaigns, success could be

⁶⁵⁶ Conflicts include the First Arab–Israeli War 1948–1949, the Suez War 1956, the Six-Day War 1967, the War of Attrition 1969–1970, the October War 1973 and the First Lebanon War 1982.

⁶⁵⁷ Alan Stephens, 'Modelling airpower: the Arab–Israeli wars of the twentieth century,' in John Andreas Olsen (ed), *Airpower applied: U.S., NATO, and Israel combat experience*, Naval Institute Press, Annapolis, MD, 2017, p. 252

⁶⁵⁸ Dima Adamsky, *The culture of military innovation: the impact of cultural factors on the revolution in military affairs in Russia, the US, and Israel*, Stanford University Press, Stanford, CA, 2014, p. 112

⁶⁵⁹ Ehud Yonay, *No margin for error: the making of the Israeli Air Force*, Pantheon Books, New York, NY, 1993, p. 359

⁶⁶⁰ Alan Stephens, 'Modelling airpower: the Arab-Israeli wars of the twentieth century,' p. 269

⁶⁶¹ Ehud Yonay, No margin for error: the making of the Israeli Air Force, p. 362

measured by how Arab national aims reduced over time. Throughout the 1940s and 1960s Ortal points out that the five Arab armies 'promised to their people that they would throw Israel into the sea,' but by 1973 the aim of conquering Tel Aviv had been reduced to regaining a small amount of territory around the Suez Canal. ⁶⁶² During that time the Arab armies kept growing massively but the aims kept getting smaller.

The IDF's success in conventional campaigns and discrete military operations in the latter half of the twentieth century creates the perception of a capable and 'highly effective joint force.' Two logical conclusions stem from this perception: the IDF's integrated approach to jointness contributed to this success; and that approach could be an effective model for creating a greater degree of joint cooperation between the Services. Unfortunately, these conclusions appear to be less supportable when the IDF's more recent history in combating the actions of Hezbollah and the Ḥarakat al-Muqāwamah al-'Islāmiyyah Islamic Resistance Movement (Hamas) are considered.

6.12 A perceived failure to be joint

Hezbollah's and Hamas' decision to employ irregular tactics against Israel follows a familiar trend in many inter-state and intra-state conflicts. The significant advantage Israel maintained in terms of conventional military capability made it likely that their enemies would eventually choose to pursue asymmetric tactics, also commonly referred to as guerrilla, irregular or hybrid warfare. Prior to the Second Lebanon War in 2006, Hezbollah had been consistently employing irregular tactics against Israel since the IDF's withdrawal from Lebanon in 1985.⁶⁶⁴ Hezbollah used a number of irregular tactics including kidnapping, ambushes and suicide attacks, but perhaps their most effective weapon was the short-range Katyusha missile. Its strategic effect was created by its ability to target Israeli settlements directly, which in turn created the necessity for an immediate and decisive response from the IDF.

In the decade prior to the start of the Second Lebanon War, the IDF had prosecuted multiple campaigns against Hezbollah.⁶⁶⁵ While many of these operations had temporarily reduced the effectiveness of the organisation's operations, the asymmetric nature of Hezbollah's tactics meant that none of the IDF's activities had been decisive in removing the threat. While the Second Lebanon War could be considered a continuation of those other operations, a significant increase in military activity was triggered on 12 July 2006 by a Hezbollah attack on an IDF patrol near the Israeli border. Hezbollah ambushed an IDF patrol under the cover of artillery that shelled nearby

⁶⁶² Brigadier General Eran Ortal, Interview, 14 August 2017

⁶⁶³ Alan Stephens, 'Modelling airpower: the Arab-Israeli wars of the twentieth century,' p. 235

⁶⁶⁴ Raphael Rudnik and Ephraim Segoli, 'The Israeli Air Force and asymmetric conflicts, 1982–2014', in John Andreas Olsen (ed), *Airpower applied: U.S., NATO, and Israel combat experience*, Naval Institute Press, Annapolis, MD, 2017, p. 288

⁶⁶⁵ Operations include Operation ACCOUNTABILITY 1993, Operation GRAPES OF WRATH 1996 and Operation DEFENSIVE SHIELD 2002.

IDF outposts and Israeli settlements. The ambush resulted in soldiers being killed or injured, and two soldiers were abducted and taken back to Lebanon.

The IDF campaign against Hezbollah commenced immediately and involved an initial air strike against pre-planned targets predominately designed to reduce the short-range rocket threat, and a series of limited ground manoeuvres within the vicinity of the border designed to reduce the enemy's freedom of manoeuvre. The IDF's operation culminated with a belated large-scale ground offensive that commenced on 9 August 2006, which was designed to 'achieve an operational decision over Hezbollah in South Lebanon and end the launches of short-range rockets.' Benjamin Lambeth, from the RAND Corporation, who conducted a detailed review of the Hezbollah campaign, summarised the IDF's performance in the following manner:

Israel's second Lebanon war ended up being the most inconclusive performance by the IDF in its many trials by fire since 1948, in that it represented the first time that a major confrontation ended without a clear-cut military victory on Israel's part.⁶⁶⁷

Rudnik and Segoli identified a similar concern over the performance of the IDF when they wrote that 'the Israeli public was both disappointed and frustrated by the results of the campaign and the way the leadership had prepared the country for war and managed the conflict.'668 In response, the Israeli Government established the Winograd Commission 'to respond to the bad feelings of the Israeli public of a crisis and disappointment caused by the results of the Second Lebanon War.'669

While numerous writers have come up with a multitude of reasons why the IDF did not achieve victory during the Second Lebanon War, for the purpose of this work, the most relevant observation is that the IDF's reduced military effectiveness was, at least in part, the product of a lack of joint cooperation and integration between the Services. Cordesman suggests that the IDF 'did not integrate its use of air power into a meaningful war plan or concept of joint operations.'⁶⁷⁰ Rudnik and Segoli believe that the 'lack of cooperation and jointness represented one of the major failures during this campaign' and that the 'Services planned their missions separately and barely explored the possibility of joint operations between supporting and supported elements; as a result, during the campaign in Lebanon each branch executed its missions almost independently.'⁶⁷¹ Lambeth's study into the IDF's campaign contains a significant number of references that highlight perceived failures in joint cooperation and integration; a summary is provided at Table 14.

⁶⁶⁶ Raphael Rudnik and Ephraim Segoli, 'The Israeli Air Force and asymmetric conflicts, 1982–2014', in John Andreas Olsen (ed), *Airpower applied: U.S., NATO, and Israel combat experience*, p. 310

⁶⁶⁷ Benjamin S Lambeth, *Air operations in Israel's war against Hezbollah: learning from Lebanon and getting it right in Gaza*, RAND Corporation, Santa Monica, CA, 2011, p. xiii

⁶⁶⁸ Raphael Rudnik and Ephraim Segoli, 'The Israeli Air Force and asymmetric conflicts, 1982–2014', p. 312

⁶⁶⁹ Summary of the Winograd Commission: Final Report, 30 January 2008, *Jewish Virtual Library*, viewed December 2017, www.jewishvirtuallibrary.org/winograd-commission-final-report-january-2008

⁶⁷⁰ Anthony H Cordesman, *Lessons of the 2006 Israeli–Hezbollah war*, The Centre for Strategic and International Studies Press, Washington, DC, 2007, p. 121

⁶⁷¹ Raphael Rudnik and Ephraim Segoli, 'The Israeli Air Force and asymmetric conflicts, 1982-2014', p. 313

Table 14: Summary of Lambeth's observations on joint cooperation during the Second Lebanon $\rm War^{672}$

Observation	Page no.
Operational integration between the ground forces and the IAF had all but ceased to exist, and ground force readiness for any contingency other than dealing with the Palestinian uprising have been allowed to lapse badly.	
In some respects, IAF cooperation with the ground forces was said to have been exemplary, particularly with respect to the integration of utility helicopters and unmanned aerial vehicles. More problematic, in contrast, was the uneven involvement of IAF fighters and attack helicopters in air—land operations or in the absence of prior joint practice during peacetime large-force training exercises.	xviii
The provision of on-call CAS by the IAF during the campaign's last days of ground fighting was said by one observer to have been 'extremely responsive', although there were recurrent issues having to do with poor air—ground integration that tended to frustrate the CAS effort on frequent occasions.	90
In the realm of air—land integration, once ground combat operations got underway, both the IAF and IDF's ground forces later acknowledged multiple breakdowns in their attempts at coordinated joint-force employment that predictably ensued from not having routinely conducted joint large-force training exercises throughout the preceding six years.	135
In its final report, the Winograd Commission found that the IAF's supporting involvement in ground operations during the campaign in the second half had revealed 'many flaws' emanating from previously identified shortcomings in planning, readiness, and training process which had to do with 'cooperation [or lack thereof] among the IDF branches'.	182
As the IAF Commander at the time, General Shkedy, later explained, a major part of the reason for this lapse in joint peacetime training was simply the fact that 'it's hard to practice [CAS delivery] with a ground force that isn't practising.'	194
It also became apparent that a divide has come to separate the IAF and Israel's ground forces when it came to institutional practice at the operational and tactical levels. To all intents and purposes, each Service planned and trained as though the other did not exist.	226
In conclusion, the Winograd Commission's final report declared categorically that the flaws in the IDF's combat performance were 'mainly in the ground forces and in the integration among the forces'.	209

⁶⁷² All references sourced from, Benjamin S Lambeth, Air operations in Israel's war against Hezbollah: learning from Lebanon and getting it right in Gaza.

This lack of cooperation and integration during the 2006 Hezbollah campaign is in stark contrast to the reputation of effectiveness the IDF enjoyed during their conventional campaigns in the preceding four decades. In the Second Lebanon War, the lack of cooperation identified by commentators tends to revolve around two main issues: the failure of the IAF and the Israeli Army to cooperatively create a campaign plan that focused on agreed joint objectives; and their inability to effectively integrate their forces at the tactical level.

6.13 Israel's evolution of jointness

To explain the difference between the IDF's apparent ability to act jointly during its long history of conventional campaigns, and its subsequent inability to integrate during operations in 2006, it is important to place jointness in its appropriate historical context. Unfortunately, the Israeli example may be another scenario where jointness suffers from a degree of over-simplification. Based on our current understanding of jointness, it would be logical to presume that the IDF's 40 years of conventional success must have, in some way, been enabled by a reasonable level of joint cooperation and integration. It is therefore somewhat of a surprise to discover that this logical presumption is incorrect. There is very little evidence that increased Service integration played an important part in the IDF's six major conventional war victories. Many commentators suggest that the nature of these conflicts required the Israeli Services to place a premium on the pursuance of their individual core specialised domain roles.

Segoli provided an example of the IDF's approach to jointness during their conventional campaigns when he described the IAF commander's attitude to supporting the land force during the Six-Day War. The IAF's commander told Segoli that 'he was not at all interested in the ground force's plans, and that he had his own plan and his own ideas for the first phase of the operation, and that after that the IAF would do what the ground commander wanted them to do.'673 Gilad believes that during the IDF's conventional conflicts the Services correctly determined that they needed to become experts in their domain-specific core roles. He suggests, for example, that the IAF began to understand that their core roles were to achieve the destruction of the enemy's air power capabilities and the suppression of ground-based air defences.'674 Hecht suggests that the IAF was not the only Service to perceive its primary roles in domain-specific terms, with the Israeli Army 'training for the only war that really matters, which is another Syrian attack on the Golan Heights and that anything else was considered a waste of effort from the real threat.'675

In today's context the IDF's historic attitude may not be considered particularly joint, because they placed a higher priority on the creation of capabilities needed to achieve individual domain dominance, rather than concentrating on those procedures and capabilities that would enable a

⁶⁷³ Brigadier General Ephraim Segoli, Interview, 16 August 2017

⁶⁷⁴ Colonel Shai Gilad, Interview, 15 August 2017

⁶⁷⁵ Dr Eado Hecht, Interview, 17 August 2017

greater level of integration and cooperation. What this opinion fails to take into account is the evolutionary nature of jointness and the characteristics of conventional warfare.

In the 1960s and 1970s, when the IDF were fighting the majority of their conventional campaigns, jointness did not formally exist and the Services would not have considered integration a priority. Even if the Services did consider integration a priority, it could be argued that, within the conventional context in which the IDF were operating, their 'joint' victories were actually achieved because the Services focused on becoming domain experts. While greater Service integration may have improved combat efficiency, it may not have been the deciding factor in the conflicts they fought. The resounding successes of the IDF during most of their conventional campaigns would suggest that, in their specific context, jointness was best served by the pursuance of individual domain excellence at the expense of an increased level of cooperation and integration. The Israeli experience is a good example of the dangers of applying modern interpretations of joint to historical contexts. Within our current understanding of jointness, we believe that combat success can only be achieved by the Services pursuing a greater level of cooperation and integration, but during the IDF's conventional campaigns jointness was best served by the Services striving for individual domain dominance.

Unfortunately, the IDF's 'domain dominance' approach to jointness that served it so well during the twentieth century does not appear to have sufficiently evolved to take into account the challenge of asymmetric warfare. While asymmetric warfare is not necessarily more complex than conventional warfare, it does tend to place a higher reliance on the integration of Service capabilities, and the fleeting nature of asymmetric targets also demands a more coordinated and timely response. Despite the changing nature of the conflicts they were facing, Segoli suggests that the IDF maintained its individual Service focus and that 'prior to 2006 everybody was talking about joint, everybody was talking about the operational level of war, but everybody was doing it by themselves'. Segoli also believes that this continued pursuance of domain dominance was particularly evident within the IAF because it placed a higher priority 'on the first move, which involved a pre-emptive strike, which remained the focus of their effort and their training.' Put simply, the IDF was facing a new type of conflict but still believed that jointness was best served by each of the Services continuing to pursue their individual domain dominance capabilities, instead of placing a higher priority on joint integration and cooperation.

Much like the Australian example presented earlier, the IDF's preference to pursue individual domain dominance capabilities, at the expense of increased joint integration and cooperation, could not be described as a conscious policy decision. Once again, it is an organisational preference created by a number of complex influences, behaviours and culture. Despite Israel adopting an *integrated approach* to jointness, many of the factors shaping this preference are similar to those experienced within Australia's *external approach* to jointness. Prior to discussing

⁶⁷⁶ Brigadier General Ephraim Segoli, Interview, 16 August 2017

⁶⁷⁷ Ibid.

those similarities, it is important to identify a particular decision made by the IDF that sets it apart from most modern militaries and that had a significant effect on the level of integration the Services attempted.

6.14 A decision not to integrate

As discussed in Chapter 2, air—land integration is a major area of cooperation for the Services. The ability of air power to support ground forces, through the accurate targeting of enemy forces in close contact with friendly troops, is a critical part of modern warfare. Most modern militaries have been pursuing an improved level of air—land integration since Vietnam and it remains a high priority for most modern fighting forces. In a way, air—land integration is seen as a form of litmus test to identify the level of cooperation and integration achieved by the Services. It is one aspect of inter-service cooperation that can be easily analysed and tested. For instance, the Winograd Commission used air—land integration as an example of the poor level of cooperation between the Israeli Services during the conflict against Hezbollah in 2006.⁶⁷⁸

With such an emphasis on the importance of maintaining quality air—land integration, it is surprising to learn that the IDF decided not to pursue a greater level of integration between air and land forces. Instead, it decided to segregate the battlefield into discrete areas of operation that were assigned to either the Army or the IAF to prosecute targets. Segoli describes how, prior to the conflict in 2006, the IDF followed a deconfliction process under which 'you do your part, and I do my part, and you call me only if you really, really, need me'.⁶⁷⁹ In a practical sense the IAF was assigned targeting in the geographic area outside of the immediate vicinity of Israeli ground forces, and responsibility for targeting the enemy within the immediate vicinity was transferred to the Army.

While this seems like a strange decision, it is once again important to appreciate the unique Israeli context to fully understand why the IDF would choose not to pursue a greater level of air—land integration. The primary driver for the IDF's decision is the number of fratricide casualties the force experienced from airborne attacks during the 1982 Lebanon conflict.⁶⁸⁰ In 1982, 'nearly half of the Israeli fatalities were due to friendly fire, from the air and ground.' Towe describes how during the Lebanon conflict the IDF suffered 'relatively high casualties to their ground troops from attacks by their own helicopters.' Hecht explained that 'more than ten per cent of Israeli

⁶⁷⁸ Benjamin S Lambeth, Air operations in Israel's war against Hezbollah: learning from Lebanon and getting it right in Gaza, p. 209

⁶⁷⁹ Brigadier General Ephraim Segoli, Interview, 16 August 2017

⁶⁸⁰ Fratricide is the killing of one's own brother or sister; in a military sense it refers to the accidental killing of your own forces during combat.

⁶⁸¹ Barbara Opall-Rome, 'Israel Army targets fratricide', Defense News, November 2010

⁶⁸² James A Towe, *Eliminating fratricide from attack helicopter fire: an Army aviator's perspective*, US Army Command and General Staff College, Fort Leavenworth, Kansas, 1994

fatalities in the first week of the war were caused by the IAF attacking Israeli ground forces and how in one particular incident there were 28 killed and over 100 casualties.'683

The potential for casualties and fatalities through fratricide is a very real risk for any modern military, but in the Israeli context they take on a special significance. Hecht described how culturally the IDF is much more sensitive to casualties and that creates a 'real level of concern for IAF close air support'. He explained that Israel is a very close-knit society, where the majority of people have served in the armed forces, or currently have family serving in the armed forces and 'concerns over fratricide drive operational considerations'. Finally, he added that unlike most Western nations where air power is applied at a distance, in Israel 'they are doing it at home and they are doing it every day.'684 Any casualties caused by fratricide take on a special significance for the IDF because of the population's relationship with the forces and the close proximity of operations.

After the First Lebanon War ended, and primarily due to concerns over fratricide, the IAF and the Israeli ground forces signed a contract which assigned the responsibility of close fire support to ground forces to the Army using 'organic artillery or multiple launch rocket systems (MLRS).' This meant the IAF were no longer responsible for close air support, which negated the requirement to improve air—land integration and cooperation between the two Services. Segoli explained that this decision not to pursue greater integration meant that when the IDF entered the Second Lebanon War the force was unprepared to conduct a greater level of air—land integration. When the operational context required a greater level of cooperation between air and land forces, no doctrine existed to support air—land integration and the majority of operations 'needed to be improvised'.

The decision not to pursue an increased level of air—land integration is not necessarily a hallmark of the Israeli *integrated approach* to jointness; instead, it should be seen as an organisational response to the strategic circumstances within which they operate. The decision not to increase air—land integration could be considered one of the primary reasons why the Israeli Services choose to pursue their individual domain capabilities rather than prioritise inter-service cooperation and integration, but it is not the only factor influencing that perceived preference.

6.15 Prioritising the domain over joint integration

Even though the IDF has adopted an *integrated approach* to jointness, many commentators have highlighted organisational influences that have limited the Israeli Services' willingness to prioritise joint capabilities and integration over individual domain-specific capabilities. In particular, these factors are considered the primary causes of why the IDF were unable to function

⁶⁸³ Dr Eado Hecht, Interview, 17 August 2017

⁶⁸⁴ Ibid.

⁶⁸⁵ Benjamin S Lambeth, Air operations in Israel's war against Hezbollah: learning from Lebanon and getting it right in Gaza, p. 225

⁶⁸⁶ Brigadier General Ephraim Segoli, Interview, 16 August 2017

as a cohesive joint force during their operations against Hezbollah in 2006. Many of the factors affecting the IDF's ability to prioritise jointness bear a strong resemblance to those experienced within Australia, and understanding how these factors influence the integrated IDF will provide a valuable insight into the ADF's experience.

6.15.1 Love affair with the air

When discussing the primary reasons why the IDF failed to prioritise joint integration, one of the most popular explanations is the period of 'aerial arrogance' experienced by the IDF,⁶⁸⁷ which is best described as a period of the IDF's history, in the late 1990s and early 2000s, where the independent or war-winning aspects of air power became the primary focus of Israel's defence. This 'aerial arrogance' is similar to the RAAF's cultural propensity to focus on the independent aspects of air power and their associated Air Force capabilities, but appears to have had greater influence on the IDF's attitude towards the need to pursue joint capabilities and integration. Among Israeli commentators, including respected IAF officers, there is almost a universal belief that Israel 'fell in love' with the ability of air power to independently provide for their defence.

During an interview, Hecht explained that air power became such a seductive solution for the IDF because it seemed to offer answers to a wide range of concerns. He explained that the 'air power only' solution gathered momentum in Israel after the US had apparent successes in the first Gulf War and Kosovo. Hecht describes Kosovo as the 'final nail in the coffin' and the point at which the IDF lost control and became too enamoured with the independent capabilities of air power. He postulates that the air power only solution became so popular in Israel because it promised the cheapest way to get the required level of deterrence. Air power became so popular because 'it's cheaper in lives, it's cheaper in political capital, and it's cheaper in diplomatic capital'. According to Hecht, air power promised to reduce Israeli concerns over casualties, it seemed a much better solution to getting stuck in a long-term ground offensive, and it was seen as more internationally acceptable because it was 'less escalatory than invading another country'.

Ortal supports Hecht's position and believes that 'massive reconnaissance and aerial strikes became the dominant way of thinking for the whole IDF'.689 Ortal also suggests that the popularity of air power was a confluence of several important factors. Firstly, 'precision munitions became much more dominant at the tactical level and were suddenly much more capable of killing the enemy'. Secondly, land wars started to become 'much less appetising' and Israel's operation in Lebanon during the 1980s became their 'Vietnam' and created a hesitation or reluctance to employ ground forces. Finally, Ortal suggests that when the nature of conflicts that Israel was fighting moved from wars of national survival against the Egyptian and Syrian armies to asymmetric conflicts that did not directly threaten Israel's existence, the nation became extremely sensitive to the casualties created by land combat.

⁶⁸⁷ Anthony H Cordesman, Lessons of the 2006 Israeli-Hezbollah war, p. 66

⁶⁸⁸ Dr Eado Hecht, Interview, 17 August 2017

⁶⁸⁹ Brigadier General Eran Ortal, Interview, 14 August 2017

Segoli suggests that the IAF used this period of unprecedented air power popularity to advance organisational aims and to push for an increased amount of leadership within the IDF. It achieved this because of the IAF's successful history and its central position within the defence of Israel. This political context gave the IAF a great deal of access to the government, which gave it the opportunity to 'influence decisions directly'. During this period IAF commanders also openly advocated the independent capabilities of air power. In 1999, Major General Eitan Ben Eliyahu wrote that the 'centrality of air power had dramatically increased to the point where it had become the deciding factor in military campaigns'. Avi Kober suggests that, after many years of advocates preaching about the relative advantages of air power, it resulted in the 'bulk of available defence resources' being invested in Air Force capability.

Although the circumstances might be different to those experienced by the RAAF, both the IDF and the IAF generated an organisational focus on the independent aspects of air power. This emphasis resulted in a subsequent reduction in the priority given to the creation of joint capabilities and integration within the IDF.

6.15.2 Platform focus and Service optimisation

It would appear that the IDF also suffers from a predilection to focus on platforms and technology rather than those concepts required to create an effective joint force. General Aharon Haliva described how the IDF have 'defined themselves by the scope and the quality of their combat platforms' and that this focus reduces the priority given to readiness and compatible operational concepts that are essential for the effective employment of a military force. Adamsky believes that the IDF has failed to take any significant leap in its vision for the future concept of operations because it is primarily focused on creating a qualitative edge through advances in the technological capabilities of its military platforms. Adamsky suggests that the quest for the preservation of this qualitative edge became the IDF's 'fundamental strategic motif' and that they frequently considered 'advanced technology as a quick fix in minimising war costs, duration and fatalities.

Ortal provided a comprehensive insight into the detrimental effects of focusing on platforms with his discussion of the 'internal logic of the Services'. He explains that the internal logic of the IDF Services is based on platforms and that each of them has created an organisation that is fully

⁶⁹⁰ Brigadier General Ephraim Segoli, Interview, 16 August 2017

⁶⁹¹ Raphael Rudnik and Ephraim Segoli, 'The Israeli Air Force and asymmetric conflicts, 1982–2014', in John Andreas Olsen (ed), *Airpower applied: U.S., NATO, and Israel combat experience*, p. 299

⁶⁹² Avi Kober, 'The Israel defense forces in the Second Lebanon War: why the poor performance?', *The Journal of Strategic Studies*, vol. 31, no. 1, 3–40, February 2008

⁶⁹³ Aharon Haliva, 'More of the same – the need for conceptual leap in force design', *Dado Centre Journal*, vol. 9, December 2016, viewed December 2017 https://www.idf.il/media/11151/haliva-english-9.pdf

⁶⁹⁴ Dima Adamsky, The culture of military innovation: the impact of cultural factors on the revolution in military affairs in Russia, the US, and Israel, p. 96

⁶⁹⁵ Ibid., p. 113

⁶⁹⁶ Brigadier General Eran Ortal, Interview, 14 August 2017

capable of exploiting the platform's potential. He suggests that 'while we call our organisations air, land and maritime forces we do not really mean that, all the Services are organised around a platform and their sole purpose in life is to fully exploit the capabilities of that platform. To have the best platforms, the Services will always look for the next generation and the best organisation to fully exploit the platform. Ortal believes that the Services within the IDF are platform-centric and that they are created to be domain specialists. Ortal's concern is that this platform focus creates gaps in capability where none of the Services has responsibility. He suggests that within the IDF those 'gaps became so wide, that their wars actually happened inside them'. The IDF's inability to respond effectively to Hezbollah's short-range missiles is an example of the gaps created in 'joint' capability when the Services are allowed to primarily focus on their domain-specific platforms.

Directly related to Ortal's observations on pursuance of domain-specific platforms is the Services' preference to prioritise domain optimisation over the creation of joint capability. Yoram Haro suggests that, because the IDF lacks a joint force design process, the Services continue to pursue domain-specific solutions 'which they wholly understand in the frame of their resources.'697 Haro suggests that this domain optimisation approach worked when 'Israel's resources were small relative to its enemies and when big military engagements were more frequent and were about the removal of existential threats' but he believes that domain-based solutions do not create the joint capability necessary to address modern asymmetric threats. Ortal agrees and suggests that the Services are good at innovation but it is 'always completed within a Service context'. Service-based innovation is designed to create dominance within their domain and 'no one is responsible for the new idea that sits between the service interpretations.'698 In a similar manner to Australia, this desire to pursue domain optimisation results in each of the Israeli Services creating individual plans for their future force structure and direction.⁶⁹⁹

Despite the IDF adopting the *integrated approach* and the Army being the predominant Service, the Services still focus on becoming domain specialists and acquiring those platforms that allow them to be dominant in their domain. This different approach to jointness does not appear to have created a more joint understanding of the future or a more integrated plan for force structure. Unlike unification within Canada, Israel has been able to maintain their domain specialists within their integrated structure but, much like Australia, it would appear that there is no obvious superseding function within the IDF that requires the Services to consider future challenges outside of their domain dominance view.

⁶⁹⁷ Yoram Hamo, 'Force design as a campaign – on optimisation and strategy', *Dado Centre Journal*, vol. 9, December 2016, viewed December 2017 https://www.idf.il/media/11153/yoram-hamo.pdf

⁶⁹⁸ Brigadier General Eran Ortal, Interview, 14 August 2017

⁶⁹⁹ Brigadier General Ephraim Segoli, Interview, 16 August 2017

6.15.3 Competition and behaviour within the IDF

The IDF's *integrated approach* to jointness also fails to dampen the competition between the Services which takes the focus away from joint capabilities and integration. Stephens points out that competition within the IDF is not a new phenomenon, and that during the late 1940s and early 1950s the IAF severely weakened its organisational standing by struggling for greater independence from the Army-dominated IDF command structure.⁷⁰⁰ Lambeth pointed out a more recent example of competition within the IDF when the Army and the IAF fought over control of the first generation of UAVs.⁷⁰¹ Ortal supported that observation by stating that the IAF opposed the procurement of the Sky Rider UAV system by the Army because they believed it was their responsibility to control everything operating in the air domain. Ortal suggests that this territoriality has the potential to reduce operational effectiveness and is aided by an 'absence of a strong external restraint'.⁷⁰²

Rudnik and Segoli suggest that even when the IDF experiences a degree of 'joint' success, such as the 2004 Operation Days of Return, the Services will not internalise the profound learning process that had taken place in terms of joint operations and will instead revive 'organisational turf wars' and try to claim credit for the success of an operation. ⁷⁰³ Segoli went further and explained that it was common for the IDF not to celebrate joint success and to use these opportunities to further Service causes. He explained that at several conferences following Operation DAYS OF RETURN both the Army and the IAF failed to learn the joint lessons and instead concentrated on their individual successes. Segoli believes that this is because 'personal ego, the organisational ego, and the political fight for budget forced an internal service view rather than a joint view of the success of the operation' and that 'the IDF is unable to think jointly because of conflicting organisational aims.'⁷⁰⁴ Ortal described the competition between the IDF Services as follows:

It is a competition for the budget. Each service will come with its projects and each service will compete for the budget because it is one pie. Therefore, I'll have to convince the general staff that my projects are more important, which means my operational effort is more important. So you create a competition within your own organisation, by competing for a market of relevancy.⁷⁰⁵

⁷⁰⁰ Alan Stephens, 'Modelling airpower: the Arab-Israeli wars of the twentieth century', in John Andreas Olsen (ed), *Airpower applied: U.S., NATO, and Israel combat experience*, p. 228

⁷⁰¹ Benjamin S Lambeth, Air operations in Israel's war against Hezbollah: learning from Lebanon and getting it right in Gaza, p. 110

⁷⁰² Eran Ortal, 'An end to repression', *Dado Centre Journal*, vol. 9, December 2016, viewed December 2017 https://www.idf.il/media/11156/ortal.pdf

⁷⁰³ Raphael Rudnik and Ephraim Segoli, 'The Israeli Air Force and asymmetric conflicts, 1982–2014', in John Andreas Olsen (ed), Airpower applied: U.S., NATO, and Israel combat experience, p. 305. Operation DAYS OF RETURN was a major military operation into the northern Gaza strip with the stated goal of preventing Palestinians from launching rockets and mortar shells into Israeli settlements in Gaza.

⁷⁰⁴ Brigadier General Ephraim Segoli, Interview, 16 August 2017

⁷⁰⁵ Brigadier General Eran Ortal, Interview, 14 August 2017

From the evidence provided it is reasonably clear that, despite a different approach to jointness, the IDF still suffers from a significant amount of competition between the Services, and this competition negatively affects the creation of joint combat capability. In the case of the IDF, Gilad believes that this competition should not be considered an organisational structural issue. He believes that even if you designed an organisational structure that was 'fit for purpose' the competition would still exist because it was 'the behaviour of the people within the structure that was the problem'. He suggests that a joint structure can only work if 'the people inside the structure understand it and if they are all holding the same view of a single joint mission'.

6.16 Integration as an approach to jointness

With a strong reputation for combat effectiveness, the IDF, with their *integrated approach* to jointness, appeared to hold some promise as an approach that might solve some of the inherent problems associated with Australia's *external approach* to jointness. Unfortunately, what immediately becomes apparent is that the IDF's reputation for tactical brilliance does not necessarily translate into a similar ability in achieving joint integration and cooperation. The IDF's success in four decades of conventional campaigns hinged on the fact that each of the Services was almost independently completing the domain-specific tasks required to dominate their enemy's conventional military force. These tasks did not necessarily require the Israeli services to cooperate or integrate to any great degree.

The *integrated approach* neither institutionalised jointness within the IDF nor required the Services to place a priority on joint cooperation or integration. The inability of the *integrated approach* to build a coherent joint team became evident as the IDF struggled to act as a cohesive joint force during their operations in the Second Lebanon War. The switch from conventional to asymmetric warfare required a greater level of cooperation and integration between the Israeli Services, and unfortunately they had very little practice in planning and operating as an integrated joint force. Some of that lack of joint cohesiveness can be blamed on a deliberate decision not to pursue an air—land integration solution because of cultural concerns over fratricide, but that one decision does not account for all the joint failings the IDF experienced in 2006.

Though the *integrated approach* differs structurally from *unification* and the *external approach*, it still suffers from the same organisational issues that tend to reduce joint cooperation and integration. The IDF belief that air power could provide them with a low cost, low commitment method of deterrence meant that the organisation focused on the independent aspects of air power and did not invest in improving air—land integration. The Israeli Services displayed similar organisational attitudes and behaviours to their Australian and Canadian counterparts. They showed a strong preference to prioritise the platforms and capabilities associated with dominance within their individual domains. They also displayed a similar level of competition for funding

⁷⁰⁶ Colonel Shai Gilad, Interview, 15 August 2017

and influence, which caused them to champion their own domain's success and downplay the importance of joint victories. It is apparent that the *integrated approach* to jointness shares an inability with the other approaches to tame the independent nature of the individual Services.

6.17 Summary

While it is clear that *unification* and the *integrated approach* to jointness have some advantages, there is no clear evidence that either of these approaches dramatically increases the ability of the maritime, land and air specialists to communicate and cooperate on integration and the creation of joint enabling capabilities. Both these approaches also suffer from the same fundamental weaknesses that limit the effectiveness of the *external approach* to jointness. In both these case studies, the Services also displayed the organisational behaviour and culture that saw them prioritise domain issues over the needs of joint capability. These case studies show that while there are a wide variety of reasons why the Services do not cooperate on joint capability, there is some commonality in all three approaches.

Firstly, Services across all three approaches maintained a strong preference for prioritising their individual domain capability. While this is one of the strongest factors affecting joint cooperation, these case studies also show that a modern defence force relies on the Services to be dominant within their domain. The Canadian *unification* example demonstrated that high-quality military capabilities cannot be created without an organisational structure that permits domain expertise. Unfortunately, as the Australian and Israeli examples demonstrate, the creation of centres of domain expertise mitigate against effective cooperation and integration. A joint dilemma is created: too much joint structure stifles the creation of domain excellence; too little reduces the ability of the Services to operate within a single cohesive and effective joint force.

Secondly, all the approaches studied suffer from a high degree of competition between the Services, which ultimately results in a poor outcome for joint cooperation. This would suggest that competition between domain organisations is inherent no matter which structure is chosen to implement jointness. This is not surprising. Organisation theory makes it very clear that when areas of specialisation exist within a bureaucracy they will compete for resources and take actions that attempt to increase their relevance. If the Services are essential to create areas of domain dominance, then it would appear that competition will always be an unfortunate side effect of this structural necessity.

Lastly, while we speak of the Services as organisations, they are made up of individuals, and it is the culture of those people that really matters. As the Canadian example demonstrated, joint organisations do not have the depth in history to displace Service cultures. Despite a concerted effort, it quickly became apparent that members of the Canadian Forces saw themselves first and foremost as domain experts and members of a Service. Joint culture cannot compete with the influence of Service culture, and relying on it to create the need for cooperation and integration does not work.

7 Conclusion

7.1 Joint solutions

Within Australian military historical literature, there is a pervasive sentiment that the Australian armed forces have, at times, failed to achieve their optimum operational potential because the individual Services (Navy, Army and Air Force) have been unable to combine effectively to create a truly joint force. Overwhelmingly, the blame for this has been placed at the feet of the individual Services, or individuals within those Services, who more often than not are accused of prioritising Service capability preferences over the needs of the joint force.

While some of these sentiments were correct within their historical context, they no longer accurately reflect the status and multifaceted nature of jointness within the ADF. While joint's evolution remains stilted, complex and contested, it continues to improve the operational effectiveness and war-fighting pedigree of the ADF.

In comparison to the majority of our allies and other modern militaries, the ADF has achieved a great deal in its journey to create a capable joint force. There have been clear successes that place the ADF at the forefront of jointness: these include the creation of Joint Operations and Joint Logistics Commands, the investment in the Australian Defence College, and the decision to stand-up the integrated ADF Headquarters.

While there have been some significant accomplishments, there is still at least one major area of concern. The creation and integration of joint capabilities is an issue that has historically dogged the ADF and the evidence presented strongly points to it still being a problem today. While the ADF has definitely become more joint, it still has not fixed the fundamental conundrum of how you shape the maritime, land and air capabilities being created by the Services into an integrated joint force, designed to deliver the operational joint effects required by the emerging strategic environment.

To be fair, the ability of the ADF to design and deliver a potent integrated joint force has not always been a national security imperative, but with the increase of great power strategic competition within the Indo-Pacific region the ADF will need enhanced jointness to provide the competitive edge that is vital for a defence force that will never be able to exploit mass as an advantage.

A changing geo-strategic environment is not the only reason why designing a joint force has become an imperative. The ADF is about to enter a period where multi-domain operations will become the norm. Though not really a new concept, multi-domain operations is the term used to describe the increased level of cooperation between the Services required to enable the

benefits of the fourth industrial wave. As the Services equip themselves with the next generation of digital weapon systems, it is apparent that they will cross domain operating boundaries more often because of the increased range of the weapon systems and the shared use of the electromagnetic spectrum.

In line with the increasing importance of designing a joint force, the original research question asked whether the Royal Australian Air Force could properly prioritise jointness. The research conducted during the case studies necessitated a refinement of that original inquiry and the question became whether Air Force could prioritise the creation of joint capability.

The primary finding of the research is that the RAAF could correctly prioritise jointness, but to do so it would require changes to Air Force's organisational behaviour and the 'whole-of-Defence' stimuli that create a similar level of behaviour across each of the Services. While that may seem to be a relatively simple answer, the complexity of the solution cannot be overstated. The actions required that would enable Air Force, and the other Services, to correctly prioritise the creation of joint capability are not cosmetic in nature. To be successful in this endeavour the ADF will need to make fundamental changes to aspects of its business.

Before discussing specific organisational solutions, there is significant benefit in providing a broad description of the nature of the change required. As the research has shown, the dilemma that needs to be solved is that the Services need to be domain specialists to be effective, but this high degree of specialisation results in organisational behaviour that places a lower priority on joint outcomes. A strong preference to focus on domain-specific capabilities is created by the Services' bureaucratic organisational behaviour, enabled by their culture, and unrestrained by effective joint policing or boundaries. The solutions must concentrate on creating a balance between the necessity of domain specialisation and the need to focus that obsession on joint results.

There has also been a historic trend to characterise the Services, and in particular Air Force's, inability to correctly prioritise the creation of joint capability as evil intent or bad behaviour by the organisations and their leadership. As this research has shown, an inability to correctly prioritise the creation of joint capability is the result of a significant number of inter-related factors that combine to create a sub-optimal outcome. Many of those adverse outcomes are the side-effects of an organisation that correctly places enormous value on achieving domain dominance.

While some of these factors involve organisational culture and the frailties of human nature, organisational behaviour cannot become the sole focus of the solution. To do so would result in emphasis being placed on stereotypical answers whereby the Services are told to 'be more joint' and 'to play nicely together', which completely misses the point that jointness, like any organisational outcome, needs to be enabled through aspects of organisational strategy, structure and design.

In recommending potential solutions that would enable the RAAF (and the other Services) to correctly prioritise jointness, consideration has been given to those actions that could be practically adopted by the Air Force and the ADF without considerable organisational upheaval

or cost. While there are more radical solutions available, the intent is to place the emphasis on improving the current system, not recommending an entirely new one.

In practical terms the solutions offered are designed to achieve two primary outcomes: firstly, to create an organisational strategy that focuses the Services' domain specialisation on joint outcomes; and secondly, to increase the effectiveness of that strategy by generating an organisational culture that is receptive to the changes it proposes.

7.2 The end of the balanced force

Strategy, much like the term joint, is one of those words that mean different things to different people. Without wanting to get into a theoretical discussion on the purpose of strategy, it is widely accepted that a strategy provides a clear annunciation of intent, so that an organisation can make resource decisions that support it.

A strategy therefore is a description of what an organisation is trying to accomplish. In the 'ends, ways and means' model of describing organisational activity, the strategy is how an organisation describes its ends. It is purposely depicted in this way so that organisations do not get the 'what they're doing' (ways) and the 'how they're doing it' (means) confused with the ends. Everett Dolman put it more eloquently when he said 'the strategist must concentrate less on determining specific actions to be taken and far more on manipulating the structure within which all actions are determined'⁷⁰⁷

In Chapter 5, Air Vice-Marshal Hart suggested that many of the problems Defence has in embracing jointness arise because of an 'absence of a clear joint outcome'. Hart suggests that the inability of the ADF to clearly describe what the joint force is required to achieve might be one of the reasons why the Services struggle to cooperate in the generation of joint capability. In an establishment that wants to be a strategy-led organisation, it is extremely important to understand that the current Australian approach to military strategy enables the Services to maintain their organisational preference to focus on domain dominant capability.

Strategy within Defence is vital because it is a fundamental input to joint force structure design. A good strategy should define an organisation's ability to meet the challenges of today and into the future. Within Defence, the ability to meet current and future security challenges relies on having the right force structure, at the right time, to deliver the military effects required by government. Of course, it is not that simple because the government's choices and actions will be informed by the military capabilities the ADF has, but in a general sense the aim of the ADF is to have a force structure designed to meet the current and most likely future strategic challenges.

⁷⁰⁷ Everett Carl Dolman, *Pure strategy: power and principle in the space and information age*, Frank Cass, New York, NY, 2005, p. 4

In what seems like a logical process, the government, based on advice from the Defence Department, decides what the ADF must be capable of doing, and Defence's force design process then works to deliver a force capable of meeting those tasks.

As an example, the most recent Defence Strategic Update provides a great deal of clarity on the strategic ends that the ADF should be designed to achieve. It states that the ADF has three strategic objectives for defence planning: to shape Australia's strategic environment; to deter actions against Australia's interests; and to respond with credible military force when required. The Update also places greater emphasis on the Indo-Pacific region and the challenges of greyzone activities.

The ADF has had a consistent level of strategic guidance for a significant period. If, as the previous chapters have argued, the ADF has not been able to fully embrace jointness, then a reasonable question is: What role has the strategic guidance played in directing an acceptable level of organisational jointness?

It is the natural tendency of the Services to want to deliver the best possible *domain force*. In their eyes this consists of delivering a force that maintains its relevance within the future strategic context and is capable of meeting the emerging threats and changes within their domain. As previously stated, this natural tendency to focus on domain dominance should not necessarily be seen as a negative. The Canadian experience described in Chapter 5 makes it clear that it is essential to maintain a level of domain specific thinking. If it is desirable to maintain a level of domain focus within Defence, then the role of strategy within the Department is to ensure that each of those domains is working to achieve the same objectives or outcomes. The strategy needs to be sufficiently directive to ensure a joint outcome, but not so directive that it removes domain agility.

For obvious reasons, it is very difficult to discuss the Department's classified strategic documentation within this work, so unfortunately there is a limited level of detail available. In general terms, Defence takes the strategic guidance provided by government and creates a classified document known as the Defence Planning Guidance (DPG). At the heart of the DPG are the three strategic defence objectives of shape, deter and respond. The DPG then breaks down those objectives into more detailed tasking, but it has not traditionally gone down to a level of detail that provides the ADF with specific missions or geographical boundaries.

While that lack of specificity might seem unusual it has worked very well for Australia's security construct. Though it is not referred to in official documentation now, previously this desire to not be too specific about what the ADF needed to be able to do was called the *balanced force* approach. What this approach accepted was that the ADF was too small in scale to defend Australia from the limited number of countries (normally superpowers) that were large enough to attempt an attack. This meant that Australia had to guarantee its security by maintaining a close alliance with the United States. The balanced force approach required Australia to maintain a wide range of high-end or niche capabilities that offered a meaningful contribution to a US coalition or international activities. Since World War II, the majority of Australian military commitments

(excluding peace-keeping operations in Timor-Leste) have involved the deployment of individual military capabilities into a wider US force construct.

Within this *balanced force* approach there has been very little requirement for the ADF to embrace jointness because the overall strategy has not required the force to operate or be deployed in that manner. Within the balanced force construct the Services understood that their role was to maintain domain-specific military capabilities that were capable of quickly plugging into the US force structure or contributing to international coalitions. This balanced force strategy meant the Services did not really need to be joint, they just needed to maintain a suitable force structure that provided the government with a wide set of options to offer meaningful international contributions.

While increased jointness has been a stated objective of the ADF, the balanced force strategy has not required the Services to pursue it because it was not necessary to remain relevant within the strategic context and to meet the expectations of government. That is not to suggest that there has not been a genuine desire or intent to increase jointness, but the balanced force strategy has not enabled it by creating a joint force design imperative. The question becomes, what sort of change in strategy is required to create that imperative?

7.3 A strategy to enable jointness

Perhaps the best place to start in describing the changes in strategy required to enable jointness is by declaring that a desire to be joint should not drive changes in national security strategy. While jointness is a highly desirable outcome, the ADF should never have a strategy to simply 'be joint'; it should only be pursuing jointness to achieve a military strategy. Jointness is not an end in itself; it is very clearly a means by which the ADF delivers on the expectations of government. It is important to make that distinction because if jointness is regarded as an end, decisions are made and resources are expended to achieve that outcome instead of the overall strategy.

If jointness is not currently a strategic imperative, what would drive a need for the ADF to pursue it? The purpose of joint is to increase the ADF's independent war-fighting potential, so any change in the security context that made independent ADF operations more likely would naturally increase the strategic imperative for jointness. While Australia has maintained a military strategy based on the balanced force approach, the Defence Strategic Update makes it clear that a more capable and independent joint force is being pursued. The Update suggests that increased strategic competition will require a 'more potent ADF' that is 'able to deploy military power to shape our environment, deter actions against our interests and, when required, respond with military force.'⁷⁰⁸

⁷⁰⁸ Australian Department of Defence, 2020 Defence Strategic Update, Australian Government Publishing Service, Canberra, 2020, p. 30

Therefore, if there is an expectation that the ADF will be capable of undertaking independent operations within an increasingly complex and competitive region, the imperative for improved capability and joint cooperation is created. That does not mean that the ADF will not have to also provide the government with options to support coalition and international activities, but these will most likely have to be adaptations to a force structure whose primary role is to counter the increasingly competitive regional security environment. The move away from the balanced force approach is a major change for Australian defence strategy that brings real opportunity for the ADF to further embrace jointness. Not simply because it is a good idea, but because the new defence strategy demands it. How would strategy within Defence have to change to allow the department to take advantage of this opportunity to embrace jointness?

The primary change required is that Defence will have to become more specific about what it wants the independent ADF to be able to achieve. That increase in specificity is what will enable a step-change in the organisation's approach to joint design. Current effects-based strategy statements like shape, deter and respond make strategy simple to consume but it is not a basis on which an integrated joint force can be designed. The Services have a natural inclination to concentrate on creating leading-edge domain-specific capability, and the balanced force approach, where the Services are only required to deliver bespoke individual capabilities, has perpetuated that tendency. A change of strategy that requires the ADF to design a joint force capable of delivering specific independent regional military effects would act as a compelling function to drive joint design within the organisation.

Defence's First Principles Review talked a great deal about creating an ADF that is 'joint by design', but the organisation has not had a strategy that has enabled that approach. To design something, it is essential to be able to describe what it should be capable of doing. By creating a strategy that provides the specific military effects that the ADF must deliver, a focal point is created for design and cooperation between the Services. Specificity in design does not mean the ADF cannot be adapted for other roles, but it will enable the Australian Government to have confidence in Defence's ability to deliver a joint force capable of creating the military effects necessary to increase regional security.

If, as the previous chapters suggest, there is a genuine intent within the ADF to embrace jointness, then the balanced force strategy should be seen as an inhibitor to that desire. Defence must find a strategic approach that adjusts that focus. One of the most practical methods is by writing a strategy with enough task specificity to create an internal imperative for joint design. The Services cannot be expected to enthusiastically embrace joint design if the joint system isn't willing to define what the joint force should be designed to do.

If history has demonstrated anything it is that simply telling the Services to be 'more joint' will not work; they have to be provided with the imperative to be part of a design process that allows them to cooperate on creating and delivering joint capability. That design process cannot begin until it is enabled by a comprehensive joint force strategy.

7.4 Less joint structure in force design

The introduction of a new strategy within Defence would prompt a natural tendency to review the organisation's structure. When a perception exists that an organisation is not operating in an optimal manner, it is commonplace for a change in structure to be recommended. Research suggests there are two main reasons why structural change is common. Firstly, there is an immediate belief that structural change will naturally lead to improved organisational performance. Secondly, structural change is considered the 'most apparent indicator and clear evidence of organisational change.'⁷⁰⁹

This trend of using organisational restructure as a method of improving performance or demonstrating intent has been prevalent within the Defence Department. The First Principles Review made extensive structural changes within Defence to 'achieve more effective joint outcomes with empowered responsibility.'⁷¹⁰ The First Principles Review is simply the latest in a long list of reviews that have recommended structural changes within Defence, including the Tange Review (1973), Defence Efficiency Review (1997) and Kinnaird Review (2003).

As noted in Chapter 1, there have been some highly successful structural changes within the Defence Department that have increased the ADF's ability to operate as a joint force. Inspired decisions, such as the creation of Joint Operations Command, Joint Logistics Command and the empowerment of the strategic centre, have led to an ADF that is capable of delivering joint operational outcomes. These structural changes have been made with an *external approach* to jointness where the Services are seen merely as providers of experienced and qualified joint staff.

Even with this regular structural change, Defence is yet to find a satisfactory solution to the Services' inability to cooperate on the creation of joint capability. Earlier this century, Defence did attempt a structural solution with the creation of Capability Development Group, which was a joint organisation charged with developing future capabilities. Even though there was no genuine assessment of Capability Development Group's ability to deliver a successful joint outcome, it was disestablished as part of the First Principles Review, partly because the Services had reestablished capability development roles within their headquarters.⁷¹¹

The demise of Capability Development Group and the continuing inability of the Services to effectively cooperate on the creation of joint capability reveals the limits of both a structural solution to this issue and the *external approach* to jointness. Creating war-fighting capability is such an integral part of each Service's desire to be dominant within its domain that it cannot effectively be excised from the Service headquarters. More importantly, Defence should not be seeking that as an outcome. The Canadian example which attempted to remove domain specialists

⁷⁰⁹ Pavel Král and Věra Králová, 'Approaches to changing organisational structure: the effect of drivers and communication', *Journal of Business Research*, May 2016, no. 69, pp. 51-69

⁷¹⁰ Australian Department of Defence, First Principles Review: Creating One Defence, p. 20

⁷¹¹ Ibid., p. 58

clearly demonstrated that each war-fighting domain requires an organisation to seek to maintain dominance and to champion its development.

If the goal remains the creation of effective joint capability, then the design and realisation of the joint force is not something to which the Services simply need to contribute; it must become an integral part of the Service headquarters' process. When it comes to designing the joint force, the external approach to jointness does not work because the structural separation created provides the Service headquarters the opportunity to maintain a proven organisational preference to focus on designing a force that creates dominance within their respective domain.

The essentiality of domain dominance considerations in joint force design means that a structural solution outside of the Services should not be pursued; rather, any solution should focus on a process or system that makes the Service headquarters integral to the joint design process. Joint force design and integration needs greater input and resourcing from the Service headquarters but this activity needs to be undertaken as a core task within the headquarters enabled by a smaller joint team. The Services need to bring their domain dominance views to the same table and work together on the creation of joint capability.

Implementation of a new joint military strategy does not require an increase in the amount of joint structure; if anything, it requires Defence to wind back the *external approach* to jointness. Implementing the joint strategy through capability design work is a core responsibility of the Service headquarters, which should be required to design the joint force together and then have their homework checked by an effective joint policeman.

7.5 Giving the joint policeman teeth

The Department of Defence took a large step forward in creating a system capable of delivering a better joint outcome during the First Principles Review when it designated the Vice Chief of Defence Force as the Joint Force Authority (JFA). This made the Vice Chief 'responsible for ensuring the current and future joint force meets the capability requirements directed by Government' and gave the position responsibility over joint force integration, interoperability and design.⁷¹²

As part of the same system, Defence also introduced the Capability Life Cycle, which is the process of 'introduction, sustainment, upgrade and replacement of Defence capability.' The Capability Life Cycle elevated the importance of joint force design within the organisation and created a joint position (Head Force Design) to manage the system and processes. A second position called Head Force Integration was also created to provide the Services with a level of design guidance to improve joint integration and allied interoperability. In simple terms, the Capability Life Cycle is

⁷¹² Unclassified information gathered from the Defence Vice Chief of the Defence Force Website, viewed June 2021, https://www.defence.gov.au/VCDF/

⁷¹³ Unclassified information gathered from the Defence Vice Chief of the Defence Force Website, viewed June 2021, https://www.defence.gov.au/publications/docs/Capability-Life-Cycle-Detailed-Design.pdf

designed to stop the Services' domain-dominant views being the primary driver behind capability decisions. It even has a whole division called Contestability that is purpose-built to hold capability managers to account and ensure that capability acquisition decisions are in line with strategy, policy and the direction of government.

Sitting at the top of the Capability Life Cycle is the Investment Committee, chaired by the Vice Chief of Defence Force. The committee has a clear mandate to prioritise joint capability needs. This mandate, coupled with all the structural and process changes associated with the Capability Life Cycle, should require the Services to demonstrate the joint value of any capability proposal. Unfortunately, with no clear understanding of what the joint force is designed to do, the joint value of a capability proposal is still highly contested and complicated to quantify. In design theory, scholars talk about the need for 'primary generators', which are those 'issues that are likely to be central or critical to the problem'.⁷¹⁴ In this case the joint design of the ADF is being limited because the strategy is not acting as a primary generator. Currently the strategy is still seen as the somewhat blank canvas on which the Services propose domain-specific solutions.

The inability of the Investment Committee and the Capability Life Cycle to understand how a capability proposal fits into a larger and more detailed joint force design inhibits its capacity to police the behaviour of the Services and to act as the arbiter of joint value. All military capability can be used in some way to support the joint force. Until the question of value moves from simply needing to demonstrate a capability's capacity to be used jointly, to the much higher bar of establishing a capability's relevance within a specific joint force design, the Services will still have the freedom to place limited priority on the creation of joint capability.

To get the Services to prioritise joint capability will require a strategy, a joint design and a system that forces them to demonstrate the relevance of their capability proposals. While that might seem like a relatively simple solution, it will not be easy to implement. The changes made by the First Principles Review have been a great start, but their true potential will not be realised until joint value can be quantified and adherence to the plan rewarded. It is essential that the Joint Force Authority is given teeth to hold the Services to account, but to empower this role there needs to be a joint strategy against which performance can be tested. At the moment, the mandate has been created but the Joint Force Authority's power has been blunted by an inability to accurately define what joint force the Services should be delivering.

7.6 Creating and enabling joint culture

Current Service culture places an extremely high value on domain specialisation. It is clear that members of the ADF see themselves as sailors, soldiers and aviators first, and members of the joint force second. In Air Force's case this tends to create an organisational culture that places

⁷¹⁴ Bryan Lawson, *How designers think: the design process demystified*, University Press, Cambridge, 2006, p. 188

value on air combat operations, force generation and skill specialisation. While it would be wrong to suggest that Service cultures do not place any value on jointness, the propensity to put the domain first places a lower priority on creating joint capability. With limited resources, priority choices need to be made and culture will affect the decision-making process of individuals.

With Service culture being so strong, an often-touted solution is to attempt to create a more influential joint culture, the belief being that a joint culture would naturally encourage individuals to place more value on joint capability. Major General Wilkie, a previous Commander of the Australian Defence College, suggests that the Australian Defence Force Academy (ADFA) does attempt to create a joint culture that is underpinned by joint values because officer trainees are a 'reasonably blank canvas when they turn up'. Wilkie also believes, though, that much of this joint culture has faded by the time officers return for senior education courses because the Services do not value joint experience and individuals reflect that attitude.

Wilkie suggests that the influence of Service culture is just too strong to try to create a counter-joint culture. The Canadian case study also shows how hard it is to create a joint culture, especially when there are powerful, existing Service cultures. Instead, Wilkie suggests that the Services need to do the work to make their individual cultures more joint. Wilkie suggests that the most obvious way to achieve this is to add a joint context to each of the Service's individual training activities and to take every opportunity for joint (collective training), so that individuals at every rank get almost constant exposure to joint context and activities.

Wilkie's suggestion makes sense. This work has demonstrated that Air Force officers with significant joint experience understand the importance of creating joint capability, to the extent that many of them become proponents of joint capability within their Service. While it is unlikely that every Air Force officer could be immersed in the joint experience, the opportunity to undertake force generation activities within a joint context or with a joint partner would help to create that affinity and elevate the priority of joint capability.

While increased joint exposure may start to shift Service culture, there will not be any significant change until individuals within the Services observe an organisational shift in the value being placed on the creation of joint capability. Every day, individuals in the Services are socialised in organisational values through observing the actions they see and the communications they receive. This is by far the most powerful cultural influence within an organisation. History, traditions and cultural rights are important but their influence pales in comparison to observed behaviours.

Chapter 4 described a significant number of cultural influences within Air Force that result in a reduction in the priority given to joint capability. Several of these influences are unique to Air Force, but many are shared with the other Services. Placing a greater emphasis on jointness within air power training and doctrine, on operational headquarters design, and on the language of leadership could change many of the historical influences. These changes would take a significant amount of time to wash through the system because they challenge the organisation's

⁷¹⁵ Major General Simone Wilkie AO (Retd), Interview, 23 June 2017

core beliefs. The journey would not be quick, but, as demonstrated by this research, the RAAF senior leadership is committed to the change.

While changing organisational DNA is a long-term proposition, that does not mean that real change could not be achieved now by addressing the perceived value of joint capability by individuals within the organisation. This perception could be altered by proactively rewarding individuals who show leadership and dedication to deliver joint capability outcomes. Individuals in Air Force do not focus on joint capability outcomes because they do not necessarily see that it provides opportunity for advancement; perhaps worse than that, they quite often see it as a detriment to their career. Changing the perceived value of joint positions and the creation of joint capability is within the power of the Services to achieve. Individuals are taught organisational value through the observed behaviours of promotions, command decisions and job selections.

A stronger Departmental emphasis on joint strategy, force design and force integration would encourage the RAAF and the other Services to recast their attitude to joint capability. While all the Services need to maintain an element of domain dominance within their leadership, ADF leadership should reflect a greater degree of joint capability experience. For Air Force this means a greater percentage of their future senior leaders would need more joint experience.

Once individuals believe that their progress is intrinsically linked to their ability to create joint capability, priorities and attitudes within Air Force will fundamentally change.

7.7 The importance of joint leadership

It is important to note that all these suggested solutions will need joint leadership to empower the necessary organisational changes. Leadership and culture are intrinsically linked; actions undertaken by leaders ultimately create cultural outcomes. Joint culture cannot be created without direct leadership intervention because culture tends to be passive in nature and relies on observed changes in behaviour. Those changes can only occur if the ADF's leadership proactively seeks an improvement in joint outcomes.

When it comes to showing the necessary leadership to champion jointness a great deal of attention is placed on CDF and the Service Chiefs. This focus is essential because, as Chapter Five described, those leaders have a significant influence over the key headquarters' functions that make the majority of major decisions. It would be unfair to suggest that any of the modern senior leaders within the ADF don't have a joint focus. Air Chief Marshal Sir Angus Houston made it unacceptable for senior leaders within the ADF to be anything but collegiate and joint focused; a culture has remained since his time as CDF. To be successful, the ADF needs senior leaders who are willing to accept joint direction and sacrifice domain priorities for closer joint integration.

To continue on its evolutionary journey the ADF now has to make leaders at every level, both in the officer and enlisted ranks, champions for joint progression. This cultural shift is necessary because of the complexity of the change being attempted. The ADF has passed the point where top-down direction will achieve the level of joint integration required. To continue to evolve,

leaders at all levels will need to look for every opportunity to immerse domain-specific training within a joint context and to proactively seek out joint solutions to tactical and operational dilemmas. Through these actions the ADF will continue to incrementally become a more effective joint force.

To achieve this, the ADF will need to create officer and enlisted leaders who are proactive in achieving joint outcomes. It will not be good enough for these leaders to simply be empathetic to the needs of the joint force; they will have to enthusiastically look for opportunities for cross-domain solutions and integration. So how does the ADF create these joint leaders? There are three practical ways this increase in joint leadership could be achieved.

Firstly, the ADF will need to invest in joint education that occurs throughout a serving member's career. At the moment, joint education is seen as something an individual does after they have completed their domain-specific career. This will need to change if we are going to have joint minded leaders throughout their career. The ADF has taken some early steps in this direction by introducing the *Australian joint professional military education continuum* in 2019, which describes a whole-of-career joint education pathway.⁷¹⁶ To be successful the ADF will need to find innovative ways to fill this continuum so that the correct balance is maintained between specialist, domain-specific and joint training.

As demonstrated in the case studies provided in Chapter Two, the second thing the ADF can do is ensure that future leaders gain experience in the joint environment. It became very clear, from the examples provided, that the majority of joint champions in Air Force came from those individuals who had spent time immersed in the joint domain. The ADF does already encourage individuals to seek out joint experience, but there is still a strong perception that it is seen as a career-limiting move. Until all the Services agree to a framework that offers joint and domain experience equal performance status, future leaders will still favour a career within their Service environments.

Lastly, leadership training at all levels within the ADF will need to continue to emphasise the importance of creating effective joint networks. Current ADF leadership doctrine does highlight 'building the team' as one of its core principles.⁷¹⁷ This principle will also need to evolve to ensure that leadership in the future understands that 'building the joint team' remains an organisational imperative. Members of the ADF need to see joint cooperation as a function of leadership at all levels within the organisation. It cannot be presumed that individuals within the ADF will become good joint team players; it needs to be taught as part of their leadership responsibilities.

⁷¹⁶ Australian Department of Defence, *The Australian joint professional military education continuum*, Defence Publishing Service, Canberra, 2019

⁷¹⁷ Australian Defence Force, Australian Defence Force – Philosophical Doctrine – *0 ADF Leadership*, Edition 3, Defence Publishing Service, Canberra, 2021, p. 51

7.8 A final word on change

A great deal of research has been devoted to the subject of jointness and the apparent inability of the Services to embrace it willingly. Much of this work has suffered from an over-simplification of both the causes and the potential solutions. The RAAF, as well as the other Services, has had a historical issue with placing the correct priority on the generation of joint capability. The reasons for this are a complex mix of organisational politics, institutional culture and blinkered vision.

It is important to remember that jointness has an evolving nature and that its relevance and significance have not remained constant. Joint capability is now essential, because the strategic context demands that the ADF be capable of independently generating lethal military effects to deter and respond within a highly competitive regional environment. This need has not always existed, but it does now.

Solutions traditionally have focused on the behaviour and attitudes of the Services, and the individuals within them, or on the structural impediments to joint outcomes. While addressing these aspects will create a degree of improvement, it ignores the most obvious need for change. Improved joint capability does not just happen within the Services, and it does not happen simply through the creation of a joint organisation. Joint capability needs to be underpinned by a detailed strategic need, enabled by a system that allows collaborative design, and empowered by individuals who see value in leading the push for greater joint ambition.

Bibliography

Interviews

Rank, post-nominals and retired status are at the date of publication. The author met with the person on the date shown.

The Honourable Kim Beazley AC, 23 May 2017

Australian Defence Force

Air Commodore Stuart Bellingham DSC AM CSC (Retd), 18 May 2017

Air Marshal Geoff Brown AO (Retd), 16 May 2017

Lieutenant General Rick Burr AO DSC MVO (Retd), 4 July 2017

Air Commodore Henrik Ehlers AM (Retd), 19 May 2017

Air Marshal David Evans AC DSO AFC (Retd), 1 May 2017

Air Marshal Ray Funnell AC (Retd), 17 May 2017

Vice Admiral Ray Griggs AO CSC (Retd), 26 May 2017

Air Vice-Marshal Neil Hart AM (Retd), 7 July 2017

Air Chief Marshal Sir Angus Houston AK AFC (Retd), 20 June 2017

Air Marshal Mel Hupfeld AO DSC (Retd), 6 July 2017

Air Commodore William Kourelakos (Retd), 18 April 2017

Air Commodore Andrew Lancaster CSC (Retd), 12 April 2017

Group Captain Susan Stothart CSC, 20 April 2017

Major General Simone Wilkie AO (Retd), 23 June 2017

Group Captain Stephen Witheford, 27 April 2017

Israel Defence Forces

Colonel Shai Gilad, 15 August 2017

Dr Eado Hecht, 17 August 2017

Brigadier General Eran Ortal 14 August 2017

Brigadier General Ephraim Segoli, 16 August 2017

Canadian Armed Forces

Dr Stephen Harris, 28 August 2017

Major Bill March, 31 August 2017

Unpublished official records

Air Power and Space Centre, RAAF Historical Section, Canberra

Air Board Agenda 12567, 31 January 1956

Air Board Agenda 12567, 9 October 1957

Air Board Agenda 13073, 27 September 1964

Biographical data on the RAAF's Chief of Air Staff/Force and Air-Vice Marshals

Official Air Force History interview with Air Marshal Jake Newham AC (Retd), June 2012

Official Air Force History interview with Air Marshal Ray Funnell AC (Retd), October 2016

Australian Defence Force

General Angus Campbell, Letter to the Army Senior Leadership Group, OCA/OUT/2016/ R27117625, 1 September 2016

Australian War Memorial (AWM), Canberra

AWM 103, Folio 1, CGS Minute Military Board, 28 June 1968

AWM 121, Folio 16, Report No. 25/66 'Joint Service implications of the expansion of organic Army Aviation within the Australian Army, 1966

AWM 121, Folio 27, Army Board Minutes

AWM 121, Folio 28, Brief for the Minister for Defence, Maintenance of Army Aircraft, July 1966

AWM 121, Folio 30, Additional notes on Army Light Aircraft

AWM 121, Folio 42, Minutes of a meeting of the Joint RAAF/Army Standing Committee, 9 November 1967

AWM 121, Folio 47, Minute to DDMP(Air) from A/DEME – Manning of Army Aviation Workshops, 10 January 1968

AWM 121, Folio 68, Letter to the Minister for Defence from the Minister for Air, 22 September 1966

AWM 121, Folio 68, Agreement by the Chief of General Staff and the Chief of Air Staff on implementation of the decisions by the Minister for Defence relating to Air Support for the Army, 29 September 1966

- AWM 121, Folio 79, Letter from DCGS to CGS No. 167/66 DCGS/DCAS Army Aviation Notes on Discussion, 11 October 1966
- AWM 121, Folio 118, Decision by Minister for Defence on Organic Army Aviation
- AWM 121, Folio 122, Agreement by the Chief of General Staff and the Chief of Air Staff on implementation of the decisions by the Minister for Defence, Annex A of 29 September 1966 relating to Air Support for the Army
- AWM 121, Folio 172, Minute 346/69 Army Aviation Organisation, 1 July 1969
- AWM 121, Folio 192, Department of the Air Minute Provision of Forward Air Controllers, 30 September 1969
- Canadian Department of National Defence Directorate of Heritage and History (DHH), Ottawa, Canada
- DHH 77/529, File 5, Aide Memoire Prepared for LTGEN WK Carr DCDS: Air Command, January 1975
- DHH 77/529, File 5, Air Command Structure, January 1975
- DHH 77/529, File 5, A Staff Paper on the Air Component of the Canadian Armed Force in the 1980s, January 1975
- DHH 77/529, File 21, Chief of the Defence Staff Commanders' Conference: Summary Record of Discussion, 28 January 1975
- DHH 77/529, File 28, House of Commons, External Affairs and National Defence Committee, Minutes, 27 May 1975
- DHH 80/225, Folder 12, The Canadian Armed Forces Integration/Unification: A 1979
 Perspective. A paper prepared by the Department of National Defence, Ottawa,
 April 1979
- DHH 80/225, Folder 24, Status briefing for MND-ADM (Pol) submission, 17 November 1977
- DHH 80/225, Folder 49, MARPAC briefing, 25 October 1979
- DHH 81/747, Folder 25, An Appreciation of Recommendation #10: Environmental Indoctrination and Socialisation (n.d.)
- DHH 83/666, Folio 2, FMC briefing to Task Force on Unification Management of Unified Military Occupation Classifications, November 1979
- DHH 91/91, Report of the Review Group on the Task Force on Unification, August 1980
- DHH 95/119, Box 2, File 17, Management, Command and Control Re-engineering Team, Phase One Report, 1 March 1995
- DHH 95/119 Box 2 File 44, Project C-15 Roles and Responsibilities in Force Generation DMC Update, 18 October 1995

DHH 95/119, Box 5, File 144, VCDS – Management, Command and Control, Re-engineering (MCCR) Project Communications Strategy, 27 September 1995

Harris, Stephen, Directorate of History and Heritage, 'Review of studies on integration and unification from documents in DHH Archives', 6 February 1997, p. 3

Harris, Stephen, Directorate of History and Heritage, 'Not so deep purple anymore', 1997

Official Interview Lieutenant General Bill Carr, 18 April 2005

Department of Defence (Air Force Headquarters)

Davies, Air Marshal GN, Promotion Board Guidance, December 2016

National Archives of Australia (NAA), Canberra

NAA A10756 LC3015, Cabinet Decision 12648, 26 August 1980

NAA A10756 LC3015, Cabinet Decision 17600, 24 February 1982

NAA A10756 LC3015, DFDC Minute 19/1980 from meetings on 15, 17, 23 and 31 July 1980

NAA A10756 LC3015, PMC Cabinet Note ASW – Aircraft Carrier 9 February 1982

NAA A12930 2028, Memorandum No. 2028 Replacement of the aircraft carrier – related to Decision number 18637, 13 July 1982

NAA A14039 3498 – Cabinet Submission 3498 – RAAF Utility Helicopters, 15 December 1985

Academic papers

- Blankshain, Jessica, *Essays on inter-service rivalry and American civil–military relations*, Harvard University, Cambridge, MA, 2014
- Brown, Gary and Woolner, Derek, *A new aircraft carrier for the Royal Australian Navy?*,

 The Research School of Pacific Studies, Australian National University, Canberra, 1982
- Deaile, Melvin G, *The SAC mentality: The origins of organisational culture in Strategic Air Command, 1946–1962*, University of North Carolina, Chapel Hill, NC, 2007
- Dillon, Terrence M, *The unification of the Canadian Armed Forces: a recipe for disaster*, Alliant International University, San Diego, CA, 2003
- Green, Matthew John, *The Israeli Defence Forces: an organisational perspective*, United States Navy, Naval Postgraduate School, Monterey, CA, 1990
- Hood, John C, *Defence policy and the unification of the Canadian Armed Forces: an analysis*, Wilfred Laurier University, Waterloo, Ontario, 1975
- Tighe, Dennis W, *Unification of forces: the road to jointness?*, School of Advanced Military Studies, United States Army Command and General Staff College, Fort Leavenworth, Kansas, 1991

- Towe, James A, *Eliminating fratricide from attack helicopter fire: an Army aviator's perspective*, United States Army Command and General Staff College, Fort Leavenworth, Kansas, 1994
- Varner, Joseph Bruce, *Unification of the Canadian Armed Forces and the impact on inter-service rivalry*, Acadia University, Wolfville, Nova Scotia, 1988

Books

- Adamsky, Dima, *The culture of military innovation: the impact of cultural factors on the revolution in military affairs in Russia, the US, and Israel,* Stanford University Press, CA, 2014
- Allard, Carl Kenneth, *Command, control, and the common defence*, Yale University Press, New Haven, CT, 1990
- Allison, Graham and Zelikow, Philip, *Essence of decision: explaining the Cuban missile crisis*, Second Edition, Addison Wesley Longman Inc, New York, NY, 1999
- Alvesson, Mats, *Understanding organisational culture*, Second Edition, SAGE Publications Inc, Los Angeles, CA, 2013
- Andrews, Eric, *The Australian centenary history of defence, volume 5, the Department of Defence,* Oxford University Press, Melbourne, 2001
- Beaumont, Roger A, *Joint military operations: a short history*, Greenwood Press, Westport, CT, 1993
- Biddle, Tami Davis, *Rhetoric and reality in air warfare: the evolution of British and American ideas about strategic bombing, 1914–1945*, Princeton University, Princeton, NJ, 2002
- Bland, Douglas L, *Canada's national defence: volume 2, Defence organisation,* School of Policy Studies, Queen's University, Kingston, Ontario, 1998
- Bland, Douglas L, *Chiefs of Defence: government and the unified command of the Canadian Armed Forces*, Brown Book Company Limited, Toronto, Ontario, 1995
- Bland, Douglas L, *The administration of defence policy in Canada, 1947 to 1985*, Ronald P Frye & Company, Kingston, Ontario, 1987
- Blaxland, John, *The Australian Army from Whitlam to Howard*, Cambridge University Press, Port Melbourne, Vic, 2014
- Boyne, Walter J, *Beyond the wild blue: a history of the United States Air Force, 1947–2007*, Second Edition, Thomas Dunne Books, New York, NY, 2007
- Brown, Andrew, Organisational culture, Pitman Publishing, London, 1995
- Builder, Carl H, *The Icarus syndrome: the role of air power theory in the evolution and fate of the US Air Force*, Transaction Publishers, New Brunswick, NJ, 1994

- Builder, Carl H, *The masks of war: American military styles in strategy and analysis*, John Hopkins University Press, Baltimore, MD, 1989
- Call, Steve, *Selling air power: military aviation and American popular culture after World War II*, Texas A&M University Press, College Station, TX, 2009
- Clausewitz, Carl von, *On war*, Michael Howard and Peter Paret (eds), Princeton University Press, Princeton, NJ, 1989
- Clark, Chris, 'First masters of air power: Douhet, Trenchard and Mitchell', in Keith Brent (ed), *Masters of air power*, Air Power Development Centre, Canberra, ACT, 2010
- Cordesman, Anthony H, *Lessons of the 2006 Israeli–Hezbollah war*, The Centre for Strategic and International Studies Press, Washington, DC, 2007
- Coulthard-Clark, Chris, 'The Australian experience of land/air operations: Vietnam', in Jeffrey Grey and Peter Dennis (eds), From past to future: the Australian experience of land/air operations proceedings of the 1995 Australian Army History Conference, Australian Defence Force Academy, Canberra, ACT, 1995
- Coulthard-Clark, Chris, *The third brother: the Royal Australian Air Force 1921–1939*, Allen & Unwin Australia Pty Ltd, North Sydney, NSW, 1991
- Coulthard-Clark, Chris, *The RAAF in Vietnam: Australian air involvement in the Vietnam War* 1962–1975, Allen & Unwin Australia Pty Ltd, North Sydney, NSW, 1995
- Crane, Conrad C, *American airpower strategy in Korea, 1950–1953*, University Press of Kansas, Lawrence, KS, 2000
- Dolman, Everett Carl, *Pure strategy: power and principle in the space and information age*, Frank Cass, New York, NY, 2005
- Douhet, Giulio, *The command of the air*, translated by Dino Ferrari, Air Force History and Museums Program, Washington, DC, 1942, new imprint 1988
- DuBrin, Andrew J, Foundations of organisational behaviour: an applied perspective, Prentice-Hall Inc, Englewood Cliffs, NJ, 1984
- English, Allan and Westrop, John, *Canadian Air Force leadership and command: the human dimension of expeditionary Air Force operations*, Canadian Aerospace Warfare Centre, Trenton, Ontario, 2007
- English, Allan, Command and control of Canadian aerospace forces: conceptual foundations, Canadian Aerospace Warfare Centre, Trenton, Ontario, 2008
- English, Allan D, *Understanding military culture*, McGill-Queen's University Press, Kingston, Ontario, 2014
- Evans, David S, *A fatal rivalry: Australia's defence at risk*, The MacMillan Company of Australia Pty Ltd, South Melbourne, 1990

- Evans, David S, *Down to earth: the autobiography of Air Marshal David Evans AC DSO AFC*, Air Power Development Centre, Canberra, 2011
- Farley, Robert M, *Grounded: the case for abolishing the United States Air Force*, University Press of Kentucky, 2015
- Feaver, Peter D, *Armed servants: agency, oversight, and civil-military relations*, Harvard University Press, Cambridge, MA, 2005
- Funnell, Ray, 'Air power strategy', in Desmond Ball (ed), *Air power: global developments and Australian perspectives*, Pergamon Press (Australia) Pty Ltd, Sydney, 1988
- Gollin, Alfred, *The impact of air power on the British people and their government 1909–1914*, Stanford University Press, Stanford, CA, 1989
- Gosselin, J, 'A 50-year tug of war of concepts at the crossroads: unification and the strong-Service idea', in Allan English, Daniel Gosselin, Howard Coombs and Laurence M Hickey, *Operational art: Canadian perspectives, context and concepts*, Canadian Defence Academy Press, Kingston, Ontario, 2005
- Granatstein, J, *Who killed the Canadian military?*, Phyllis Bruce Books / Harper Flamingo Canada, Toronto, Ontario, 2004
- Gray, Jerry L and Starke, Frederick A, *Organisational behaviour: concepts and applications*, Fourth Edition, Bell & Howell Information Company, Columbus, Ohio, 1988
- Grey, Jeffrey, *The Australian centenary history of Defence, volume 1, The Australian Army,* Oxford University Press, South Melbourne, Vic, 2001
- Hall, Timothy, HMAS Melbourne, George Allen & Unwin, North Sydney, NSW, 1982
- Hallion, Richard P, *Storm over Iraq: air power and the Gulf War*, Smithsonian Institution Press, Washington, DC, 1992
- Halperin, Morton H and Clapp, Priscilla A, *Bureaucratic politics and foreign policy*, Second Edition, Brookings Institution Press, Washington, DC, 2006
- Hasek, John, The disarming of Canada, Key Porter Books Limited, Toronto, Ontario, 1987
- Helson, Peter, *The private Air Marshal: a biography of Air Marshal Sir George Jones KBE CB DFC*, Air Power Development Centre, Canberra, ACT, 2010
- Hinman, Ellwood P, Jahn, Thomas E and Jinnette, James G, *AirLandBattle 21: transformational concepts for integrating twenty-first century air and ground forces*, Ashgate Publishing Limited, Surrey, England, 2009
- Horwood, Ian, *Inter-service rivalry and airpower in the Vietnam War*, Combat Studies Institute Press, Fort Leavenworth, KS, 2006
- Jackson, Aaron P, Doctrine, strategy and military culture: military-strategic doctrine and development in Australia, Canada and New Zealand, 1987–2007, Canadian Forces Aerospace Warfare Centre, Trenton, Ontario, 2013

- Janis, Irving L, Groupthink, Houghton Mifflin Company, Boston, MA, 1982
- Jans, Nicholas, *The Chiefs: a study of strategic leadership*, Centre for Defence Leadership and Ethics, Australian Defence College, Canberra, ACT, 2013
- Jans, Nicholas, *The real C-cubed: culture, careers and climate and how they affect capability,*Canberra Papers on Strategy and Defence, No. 143, Strategic and Defence Studies
 Centre, Australian National University, Canberra, ACT, 2002
- Jervis, Robert, *Perception and misperception in international politics*, Princeton University Press, Princeton, NJ, 1976
- Johnson, David E, *Learning large lessons: the evolving roles of ground power and air power in the post-Cold War era*, RAND Corporation, Santa Monica, CA, 2006
- Joubert de la Ferte, Philip, *The third Service: the story behind the Royal Air Force*, Jarrold & Sons Ltd, Norwich, 1955
- Kainikara, Sanu, *A fresh look at air power doctrine*, Air Power Development Centre, Tuggeranong, ACT, 2008
- Kenny, Kate, Whittle, Andrea and Willmott, Hugh, *Understanding identity and organisations*, SAGE Publications, Los Angeles, CA, 2011
- Kotter, John P and Heskett, James L, *Corporate culture and performance*, The Free Press, New York, NY, 1992
- Kronenberg, Vernon J, *All together now: the organisation of the Department of National Defence in Canada 1964–1972*, Canadian Institute of International Affairs, Toronto, Ontario, 1973
- Kuhn, Thomas S, *The structure of scientific revolutions*, Third Edition, The University of Chicago Press, Chicago, IL, 1996
- Kummerow, Elizabeth and Kirby, Neil, *Organisational culture: concept, context, and measurement*, vol. 1, World Scientific Publishing Co Pte Ltd, Singapore, 2014
- Lambeth, Benjamin S, *Air operations in Israel's war against Hezbollah: learning from Lebanon and getting it right in Gaza*, RAND Corporation, Santa Monica, CA, 2011
- Lane, Bruce, 'No. 9 Squadron operations', in John Mordike (ed), *The RAAF in the war in Vietnam: proceedings of the 1998 RAAF History Conference*, Air Power Studies Centre, Fairbairn, ACT, 1999
- Lawson, Bryan, *How designers think: the design process demystified*, Architectural Press, Kidlington, Oxford, 2006
- Lax, Group Captain Mark, 'A hint of things to come: leadership in the Australian Flying Corps', in Barry Sutherland (ed), Command and leadership in war and peace 1914–1975: the proceedings of the 1999 RAAF History Conference held in Canberra on 29 October 1999, Air Power Studies Centre, Fairbairn, ACT, 2000

- Ledwidge, Frank, *Punching below our weight: how inter-service rivalry has damaged the British armed forces*, Yale University Press, New Haven, CT, 2012
- Lindsay, Patrick, *Cosgrove: portrait of a leader*, Random House Australia Pty Ltd, Milsons Point, NSW, 2006
- Lowry Robert, *The Last Knight: a biography of General Sir Phillip Bennett AC KBE DSO*, Big Sky Publishing Pty Ltd, Newport, NSW, 2011
- Luttwak, Edward, The Pentagon and the art of war, Simon and Schuster, New York, NY, 1984
- Mason, Francis K, The British fighter since 1912, Conway Maritime Press Ltd, London, UK, 1992
- McAulay, Lex, The Battle of Long Tan, Century Hutchinson Australia Pty Ltd, Hawthorn, Vic, 1986
- McClendon, Robert Earl, *The question of autonomy for the United States air arm, 1907–1945*, Air University, Maxwell Air Force Base, AL, 1954
- McNeill, Ian, *To Long Tan: the Australian Army and the Vietnam War 1950–1966*, Allen & Unwin, St Leonards, NSW, 1993
- Meilinger, Phillip, 'The development of air power theory', in Peter W Gray and Sebastian Cox (eds), *Air power leadership: theory and practice*, Joint Doctrine and Concepts Centre, London, 2002
- Menhinick, Richard T, Sea control and maritime power projection for Australia, Ocean Publications, Wollongong, NSW, 2005
- Mitchell, William 'Billy', Winged defence: the development and possibilities of modern air power economic and military, The University of Alabama Press, Tuscaloosa, AL, 1925, new imprint 2009
- Morgan, Gareth, *Images of organisation*, Updated Edition, SAGE Publications Inc, Los Angeles, CA, 2007
- Morrow, John H, *The Great War in the Air: military aviation from 1909 to 1921*, The University of Alabama Press, Tuscaloosa, AL, 1993
- Muller, Richard R, 'Close air support: the German, British and American experiences, 1918–1941', in Williamson Murray and Allan R Millett (eds), *Military innovation in the interwar period*, Cambridge University Press, New York, NY, 1996
- Neil, Graham, 'Forward air control operations in South Vietnam', in John Mordike (ed), *The RAAF in the war in Vietnam: proceedings of the 1998 RAAF History Conference*,

 Air Power Studies Centre, Fairbairn, ACT, 1999
- Odgers, George, *The golden years: the Royal Australian Air Force 1921–1971*, Australian Government Publishing Service, Canberra, ACT, 1971
- Olsen, John Andreas, *John Warden and the renaissance of American air power*, Potomac Books Inc, Dulles, VA, 2007

- Olsen, John Andreas, Strategic air power in Desert Storm, Routledge, Abingdon, 2003
- Pape, Robert A, *Bombing to win: air power and coercion in war*, Cornell University Press, Ithaca, NY, 1996
- Parkin, R J, 'The urgency of war: the development of close air support doctrine in the Second World War', in Jeffrey Grey and Peter Dennis (eds), From past to future: the Australian experience of land/air operations proceedings of the 1995 Australian Army History Conference, Australian Defence Force Academy, Canberra, ACT, 1995
- Pfeffer, Jeffrey, Power in organisations, Pitman Publications, Boston, MA, 1981
- Porter, Gerald, *In retreat: the Canadian forces in the Trudeau years*, Deneau and Greenburg Publishers Ltd, Ottawa, 1978
- Robertson, Scot, *The development of RAF strategic bombing doctrine, 1919–1939*, Praeger Publishers, Westport, CT, 1995
- Robbins, Stephen P and Barnwell, Neil, *Organisation theory in Australia*, Second Edition, Prentice Hall of Australia Pty Ltd, Sydney, NSW, 1994
- Rudnik, Raphael and Segoli, Ephraim, 'The Israeli Air Force and asymmetric conflicts, 1982–2014', in John Andreas Olsen (ed), *Airpower applied: U.S., NATO, and Israel combat experience*, Naval Institute Press, Annapolis, MD, 2017
- Schein, Edgar H, *Organisational culture and leadership*, Third Edition, Jossey-Bass, San Francisco, CA, 2004
- Sherman, William *C, Air warfare*, Reprint Edition, Air University Press, Maxwell Air Force Base, AL, 2002
- Smith, Hedrick, *The power game: how Washington works*, Random House Inc, New York, NY, 1988
- Slessor, John C, Air power and armies, The University of Alabama Press, Tuscaloosa, AL, 2009
- Sorenson, David S, *The process and politics of Defence acquisition*, Praegar Security International, Westport, CT, 2009
- Stephens, Alan, 'Command in the air', in Peter W Gray and Sebastian Cox (eds), *Air power leadership: theory and practice*, Joint Doctrine and Concepts Centre, London, 2002
- Stephens, Alan, 'Modelling airpower: the Arab–Israeli wars of the twentieth century,' in John Andreas Olsen (ed), *Airpower applied: U.S., NATO, and Israel combat experience,* Naval Institute Press, Annapolis, MD, 2017
- Stephens, Alan, 'The odd couple: Army/Air Force relations', in Jeffrey Grey and Peter Dennis (eds), From past to future: the Australian experience of land/air operations proceedings of the 1995 Australian Army History Conference, Australian Defence Force Academy, Canberra, ACT, 1995

- Stephens, Alan, *Going solo: the Royal Australian Air Force, 1946–1971*, Australian Government Publishing Service, Canberra, 1995
- Stephens, Alan, *Power plus attitude: ideas, strategy and doctrine in the Royal Australian Air Force 1921–1991,* Australian Government Printing Service, Canberra, ACT, 1992
- Stephens, Alan, *The Australian centenary history of Defence, volume 2, the Royal Australian Air Force,* Oxford University Press, South Melbourne, Vic, 2001
- Stephens, Alan, 'The true believers: air power between the wars', in Alan Stephens (ed), *The war in the air 1914–1994*, *the proceedings of a conference held by the Royal Australian Air Force in Canberra, March 1994*, Air Power Studies Centre, Fairburn, ACT, 1994
- Tate, James P, *The Army and its Air Corps: Army policy toward aviation, 1919–1941*, Air University Press, Maxwell Air Force base, AL, 1998
- Trice, HM and Beyer, JM, *The cultures of work organisations*, Prentice Hall, Englewood Cliffs, NJ, 1993
- Vecchio, Robert P, Hearn, Greg and Southey, Greg, *Organisational behaviour: life at work in Australia*, Harcourt Brace Jovanovich, Sydney, 1992
- Whitby, Michael J, Gimblet, Richard H and Haydon, Peter, *The Admiral: Canada's senior naval leadership in the twentieth century*, Dundurn Press, Toronto, Ontario, 2006
- Wilson, David, *Warden to Tanager: RAAF operations in East Timor*, Banner Books, Maryborough, Qld, 2003
- Windrow, Martin, *The last valley: Dien Bien Phu and the French defeat in Vietnam*, Da Capo Press, Cambridge, MA, 2006
- Winnefeld, James A and Johnson, Dana J, *Joint air operations: pursuit of unity in command and control, 1942–1991*, Naval Institute Press, Annapolis, MD, 1993
- Winton, Harold R, 'An ambivalent partnership: US Army and Air Force perspectives on airground operations, 1973–1990', in Colonel Phillip S Meilinger, USAF (ed), *The Paths of Heaven: An Evolution of Airpower Theory*, Air University Press, Maxwell AFB, AL, 1997
- Worden, Mike, *Rise of the fighter generals: the problem of Air Force leadership, 1945–1982,* Air University Press, Maxwell Air Force Base, 1998
- Wright, Anthony, *Australian carrier decisions: the acquisition of HMA Ships Albatross, Sydney and Melbourne*, Maritime Studies Program, Canberra, ACT, 1998
- Yonay, Ehud, *No margin for error: the making of the Israeli Air Force*, Pantheon Books, New York, New York, 1993

Government documents

- Australian Army, Land Warfare Procedures Combat Arms (Offensive Support) LWP-CA(OS) 5-3-3, October 2010
- Australian Defence Force, Australian Defence Force Doctrine Publication (ADDP) 3.9 *Airborne operations*, Defence Publishing Service, Canberra, November 2011
- Australian Defence Force, Australian Defence Force Doctrine Publication (ADDP) 3.2 *Amphibious operations*, Defence Publishing Service, Canberra, January 2009
- Australian Defence Force, Australian Defence Force Doctrine Publication (ADDP) 00.1 *Command and control*, Defence Publishing Service, Canberra, May 2009
- Australian Defence Force, Australian Defence Force Doctrine Publication (ADDP) D Foundations of Australian military doctrine, Third Edition, Defence Publishing Service, Canberra, July 2012
- Australian Defence Force, Australian Defence Force Doctrine Publication (ADDP) D.3 *Joint operations for the 21st century*, Defence Publishing Service, Canberra, May 2007
- Australian Defence Force, Australian Defence Force Philosophical Doctrine *0 ADF Leadership*, Edition 3, Defence Publishing Service, Canberra, 2021
- Australian Defence Force, CDF Directive 12/09 Remediation of air–land integration in the ADF, 2009
- Australian Department of Defence, 2020 Defence Strategic Update, Australian Government Publishing Service, Canberra, 2020
- Australian Department of Defence, *ADFHQ implementation*, Defence Protected Network, Associate Secretary Website, Canberra, 2017
- Australian Department of Defence, Stephan Fruhling (ed), *A history of Australian strategic policy Since 1945*, Defence Publishing Service, Canberra ACT
- Australian Department of Defence, Air Chief Marshal Mark Binskin, Chief of Defence Force, 'Implementing the Defence Headquarters Review Update and CDF intent', unclassified First Principles Review website, Defence Protected Network, viewed July 2017
- Australian Department of Defence, *Defending Australia*: Defence White Paper 1994, Australian Government Publishing Service, Canberra, 1994
- Australian Department of Defence, Departmental Personnel Instruction No. 4/2005 Defence Higher Education Policy, 16 November 2005
- Australian Department of Defence, *First Principles Review: Creating One Defence*, Australian Government Publishing Service, Canberra, 2015
- Australian Department of Defence, Media Release, 'HMAS *Canberra* joins the fleet', 28 November 2014

- Australian Department of Defence, 2016 Defence White Paper, Australian Government Publishing Service, Canberra, 2016
- Australian Department of Defence, Review of the Australian Defence Force retention and recruitment program, August 2010
- Australian Department of Defence, *The Australian joint professional military education continuum*, Defence Publishing Service, Canberra, 2019
- Australian Department of Defence, *Women in the ADF report 2015–16*, Australian Government Publishing Service, Canberra, ACT, 2016
- Australian Parliament, Joint Committee on Foreign Affairs and Defence, *An aircraft carrier for the Australian Defence Force*, Commonwealth Government Printer, Canberra, ACT, 1982
- Australian Parliament, Joint Committee on Foreign Affairs and Defence. Sub-Committee on Defence Matters, May–June 1982 Official Hansard Transcript of Evidence, Commonwealth Government Printer, Canberra, ACT, 1982
- Commonwealth Government of Australia, *The defence of Australia 1987*, Australian Government Publishing Service, Canberra, ACT, 1987
- Commonwealth Government of Australia, House of Representatives Hansard, 25 February1981, viewed October 2017, http://www.aph.gov.au/Parliamentary_Business/Hansard/
- Commonwealth Government of Australia, House of Representatives Hansard, 27 November 1986, p. 3864, viewed October 2017, http://www.aph.gov.au/Parliamentary_Business/Hansard/
- Commonwealth Government of Australia, Senate Hansard, 11 March 1982, viewed October 2017, http://www.aph.gov.au/Parliamentary_Business/Hansard/
- Commonwealth Government of Australia, Senate Hansard, 25 March 1982, viewed October 2017, http://www.aph.gov.au/Parliamentary_Business/Hansard/
- Headquarters United States Air Force, *Operation ANACONDA: an air power perspective*, 7 Feb 2005
- Rizzo, Paul J, *Plan to reform support ship repair and maintenance practices, July 2011*, Australian Government Publishing Service, Canberra, 2011
- Royal Air Force, Air Publication 3003, *A brief history of the Royal Air Force*, Her Majesty's Stationery Office, Colgate, Norwich, 2004
- Royal Australian Air Force, Air Force strategy 2017–2027, Canberra, ACT, 2017
- Royal Australian Air Force, *The Air power manual*, Seventh Edition, Air and Space Power Centre, Fairbairn, ACT, 2022
- Royal Australian Air Force, Australian Air Publication (AAP) 1000, *Fundamentals of Australian aerospace power*, Aerospace Centre, Fairbairn, ACT, 2002

- Royal Australian Air Force, *Chief of Air Force Commander's intent*, Royal Australian Air Force, Canberra, ACT, 2015
- Royal Australian Air Force, RAAF Historical Section, *Units of the Royal Australian Air Force: a concise history volume 4 maritime and transport units*, Australian Government Publishing Service, Canberra, ACT, 1995
- Tange, Sir Arthur, *Australian Defence: Report on the reorganisation of the Defence groups of departments*, Australian Government Publishing Service, Canberra, 1974
- United States War Department, War Department Field Manual FM 100–20: Command and employment of air power, July 1943

Speeches

- Barrett, Vice Admiral Tim, Chief of Navy, Royal Australian Navy, 'Integration design requirements for Navy's future systems and ships,' Chief of Navy address to the Sir Richard Williams Foundation Seminar, National Gallery of Australia, 10 August 2016
- Clark, Chris, 'The RAAF at Long Tan', presented at a seminar on behalf of the Air Power Development Centre, 20 July 2010
- Davies, Air Marshal Leo, Chief of Air Force, Royal Australian Air Force, 'Keynote speech,' RAAF Air Power Conference, Canberra, 16 March 2016
- Davies, Air Marshal Leo, Chief of Air Force, Royal Australian Air Force, 'A 10-year plan an Air Force strategy, ASPI National Security Dinner, 19 July 2016
- Thomson, Mark, 'Defence reform: the Australian experience', address to the Atlantic Council workshop on comparative defence reform, Ottawa, Canada, 21 June 2013

Articles

- Albert, Stuart and Whetten, David A, 'Organisational identity', *Research in Organisational Behaviour*, vol. 7, 1985
- Arnold, General Henry Harley, 'Our air power and the future: from the Third Report of the Commanding General of the Army Air Force to the Secretary of War,' 12 November 1945, viewed April 2017, http://saltofamerica.com/contents/displayArticle.aspx?18_379
- Axe, David, 'America does not need the Air Force', *War is Boring*, 12 August 2013, viewed April 2017, https://medium.com/war-is-boring/america-does-not-need-the-air-force-ff4662469f95
- Burris, Beverly H, 'Technocratic organisation and control', *Organisation Studies*, vol. 10, issue 1, June 2016

- Byers, RB, 'Canadian security and defence: the legacy and the challenges', *The Adelphi Papers*, no. 124, 1986
- Cohen, Eliot A, 'The mystique of US air power' *Foreign Affairs*, January/February 1994, viewed April 2017, http://www.foreignaffairs.com/articles/49442/eliot-a-cohen/the-mystique-of-us-air-power
- Cordner, Lee, 'The future of maritime forces in an integrated Australian Defence Force,' *Security Challenges*, vol. 12, no. 1, 2016
- Cropsey, Seth, 'The limits of jointness', Joint Force Quarterly, Summer 1993, no. 1
- Deutsch, Morton, 'Conflicts: productive and destructive', *Journal of Social Issues*, vol. 25, issue 1, January 1969
- Farley, Robert, 'Abolish the Air Force', The American Prospect, November 2007
- Field, Chris, 'Employment of Australian helicopters in Vietnam: strategic failure, operational pragmatism, and tactical success', *Australian Defence Force Journal*, no. 161, July/August 2003
- Fitzgerald, Todd and Hennessey, Michael A, 'An expedient reorganisation: the NDHQ J-staff system in the Gulf War,' *Canadian Military Journal*, vol. 4, no. 1, Spring 2003
- Francis, DA, 'Ashes to ashes: the rise and fall of the RAN aircraft carrier project', *Journal of the Australian Naval Institute*, vol. 11, no. 2, May 1985
- Gillian Fournier, 'Mere exposure effect', *Psych Central*, viewed on July 2017, https://psychcentral.com/encyclopedia/mere-exposure-effect/
- Gosselin, Daniel, 'Hellyer's ghosts: unification of the Canadian Forces is 40 years old part one,' *Canadian Military Journal*, vol. 9, no. 2, 2008
- Gosselin, Daniel and Stone, Craig, 'From Minister Hellyer to General Hillier: understanding the fundamental differences between the unification of the Canadian Forces and its present transformation,' *Canadian Military Journal*, Winter 2005–2006
- Haliva, Aharon, 'More of the same: the need for conceptual leap in force design', *Dado Centre Journal*, vol. 9, December 2016, viewed December 2017, https://www.idf.il/media/11151/haliva-english-9.pdf
- Hamo, Yoram, 'Force design as a campaign: on optimisation and strategy', *Dado Centre Journal*, vol. 9, December 2016, viewed December 2017, https://www.idf.il/media/11153/yoram-hamo.pdf
- Huntington, Samuel P, 'Inter-service competition and the political roles of the armed services', American Political Science Review, vol. 55, March 1961
- Jennings, Peter, 'Letting the Beijing bully know this is our neighbourhood,' viewed August 2020, https://www.aspi.org.au/opinion/letting-beijing-bully-know-our-neighbourhood

- Joyce, Shannon, 'From out of the shadow,' Contact Air Land and Sea, issue 6, June 2005
- Kainikara, Sanu, 'Professional mastery and air power education', issue 33, Air Power Development Centre, 2011
- Kanter, Rosabeth M, 'Is tribalism inevitable?', *Huffington Post*, 25 September 2013, viewed March 2017, http://www.huffingtonpost.com/rosabeth-moss-kanter/is-tribalism-inevitable b 3661436.html
- Kober, Avi, 'The Israel defense forces in the Second Lebanon War: why the poor performance?', *The Journal of Strategic Studies*, vol. 31, no. 1, 3–40, February 2008
- Kral, Pavel, & Kralova, Vera, 'Approaches to changing organisational structure: the effect of drivers and communication,' *Journal of Business Research*, no. 69, May 2016
- LeRay-Meyer, Nick, 'RAAF helicopter operations Vietnam 1966–1971(#230)', *Pathfinder: Air Power Development Centre Bulletin*, vol. 7, October 2014
- Levine, David K, 'Economic and game theory: what is game theory?', UCLA website, viewed July 2017, http://levine.sscnet.ucla.edu/general/whatis.htm
- Locher, James R, III, 'Has it worked? The Goldwater-Nichols Reorganisation Act' *Naval War College Review 2001*, vol. 54, viewed December 2018 https://digital-commons.usnwc.edu/nwc-review/vol54/iss4/7
- Luttwak, Edward, 'Platformitis', *JohnShaplin*, 2 December 2016, viewed May 2017, http://johnshaplin.blogspot.com.au/2016/12/platformitis-by-edward-luttwak.html
- Maduenyi, Sylvia and Oke, Adunola Oluremi and Fadeyi, Olatunji and Ajagbe, Musibau Akintunde, 'Impact of organisational structure on organisational performance', International Conference on African Development Issues 2015, Social and Economic Models for Development Track, 2015
- Miewald, Robert D, 'Weberian bureaucracy and the military model', *Public Administration Review*, vol. 30, no. 2, March–April 1970
- Mizokami, Kyle, 'Every single aircraft carrier in the world,' *Popularmechanics.com*, 25 January 2016, viewed October 2017, http://www.popularmechanics.com/military/navy-ships/g2412/a-global-roundup-of-aircraft-carriers/
- Moore, Richard, 'A proliferation of Royal Air Forces: bombers and bombs down under, 1954-63', *The Nonproliferation Review*, vol. 21, no. 2, 2014
- Odiorne, George S, 'The military as a bureaucracy: the super activity trap', *Southern Review of Public Administration*, vol. 1, no. 1, June 1977
- Opall-Rome, Barbara, 'Israel Army targets fratricide', Defense News, November 2010
- Ortal, Eran, 'An end to repression', *Dado Centre Journal*, vol. 9, December 2016, viewed December 2017, https://www.idf.il/media/11156/ortal.pdf

- Post, Carl, 'The birth of forward air control: a Royal Australian Air Force innovation', *Australian Defence Force Journal*, no. 172, 2007
- Pugliese, David, 'Canada's Air Force and unification: Air Force received the shortest end of the stick', *Ottawa Citizen*, 23 January 2014, viewed October 2017, http://ottawacitizen.com/news/national/defence-watch/canadas-air-force-and-unification-air-force-received-the-shortest-end-of-the-stick
- Shalikashvili, John, 'A word from the Chairman', *Joint Force Quarterly*, Autumn–Winter 1994–1995
- Shaw, Ryan and Krieger, Miriam, 'Don't leave jointness to the Services: preserving joint officer development amid Goldwater-Nichols reform', *War on the Rocks*, 30 December 2015, viewed October 2017, https://warontherocks.com/2015/12/dont-leave-jointness-to-the-services-preserving-joint-officer-development-amid-goldwater-nichols-reform/
- Sherman, Michael E, 'A single service for Canada?', The Adelphi Papers, vol. 7, issue 39, 1967
- Smith, Hugh and Bergin, Anthony, 'Educating for the profession of arms in Australia', *Australian Strategic Policy Institute Special Report*, issue 48, August 2012
- Snider, Don M, 'The US military in transition to jointness: surmounting old notions of interservice rivalry', *Airpower Journal*, Fall 1996, vol. 10, no. 3
- Sulkowski, Lukasz, 'Elements of organisational culture: theoretical and methodological problems', *Management*, vol. 16, no. 2, December 2012
- Sweetman, John, 'Crucial months for survival: the Royal Air Force, 1918–19', *Journal of Contemporary History*, vol. 19, no. 3, July 1984
- Waterman, Robert H, Jr, Peters, Thomas J, Phillips, Julien R, 'Structure is not organisation,' *Business Horizons*, vol. 23, issue 3, June 1980
- 'The organisation for defence and the Canadian forces', The Adelphi Papers, vol. 26, no. 214, 2008

Newspaper articles

'Aircraft bombing', The Telegraph, Brisbane, Qld, 22 June 1925

'Air defence: Is Australia awake?, The Sydney Morning Herald, 9 July 1925

AP Worldstream, 'New Zealand Air Force threatened by dwindling staff after losing fighter jets', *Associated Press*, 13 June 2002, viewed May 2017, http://www.highbeam.com/doc/1P1-53588588.html

'Army aero service shakeup started', The New York Times, 18 April 1916

Barker, Alex, 'Air Force Chief defends role and spending', Financial Times, 12 February 2010

- Canadian Armed Force News Release NR 11.096, 'Canada restores historic identities of the Royal Canadian Navy, the Canadian Army, and the Royal Canadian Air Force', 16 August 2011, viewed November 2017, http://www.forces.gc.ca/en/news/article. page?doc=canada-restores-historic-identities-of-the-royal-canadian-navy-the-canadian-army-and-the-royal-canadian-air-force/hnps1ve8
- Chapman, Paul, 'New Zealand scraps air force war planes', *Telegraph.co.uk*, 9 May 2001, viewed May 2017, http://www.telegraph.co.uk/news/worldnews/australiaandthepacific/newzealand/1329673/New-Zealand-scraps-air-force-warplanes.html
- Coghlan, Tom, 'The future of defence part three: the RAF, *Times Online*, 3 February 2010, viewed April 2017, https://www.thetimes.co.uk/article/the-future-of-defence-part-three-the-raf-3lzt0hwkcck
- Cranston, Frank, 'Admiral wants aircraft carriers retained', *The Canberra Times*, 10 November 1977
- Cranston, Frank, 'Army looks for more control of helicopters', *The Canberra Times*, 7 February 1986
- Cranston, Frank, 'Fighters, carrier "separate", The Canberra Times, 2 April 1980
- Cranston, Frank, 'HMAS *Melbourne* to be scrapped: carrier scheme rejected by Government', *The Canberra Times*, 15 March 1983
- Drury, Ian, 'Could this be the end of the RAF? Military chief refuses to rule out merger with Navy as cuts loom', *Mail Online*, 4 February 2010, viewed April 2017, http://www.dailymail.co.uk/news/article-1248171/Green-paper-reveals-defence-budget-cuts-new-alliance-France.html
- 'Empire defence: safeguarding sea lines', The Age, Melbourne, Vic,14 October 1926
- 'Former Air Chief opposes carrier plan: *Invincible*, Harriers waste of money', *The Canberra Times*, 30 June 1982
- 'General credits Air Force with Iraqi Army's defeat,' The Boston Globe, 16 March 1991
- Hamilton, Eamon, 'Delivered exact precision', RAAF News, 27 August 2015
- Kirkup, James, 'Merger of armed forces "should be debated", The Telegraph, UK, 3 February 2010
- Kirkup, James, 'RAF chief: don't cut fighter jets', The Telegraph, 15 February 2010
- Martin, Iain, 'Will the Tories axe the RAF?', The Wall Street Journal, 18 September 2009
- 'Navy chief a lone voice in push for new carrier', The Canberra Times, 1 January 2012
- Rayment, Sean, 'RAF chief predicts controversial takeover of Royal Naval air power', *The Telegraph*, 7 June 2009
- Scott, Keith, 'Navy "done over" by the Air Force, The Canberra Times, 3 July 1989

