



Commanding Air Power: Some Contemporary Thoughts

by Mark Hinchcliffe

FOREWORD

The subject of the command of air power is an extremely important one to all members of the RAAF and indeed all members of the ADF. Air power is omnipresent in all joint operations – whether it is providing control of the air, precision strike, ISR or air mobility – and its success or failure will often decide the success or failure of the joint campaign.

The issue of who is best placed to command and employ air power is not always a well understood one – as is well explained by WGCDR Hinchcliffe in this very useful and thoroughly readable paper. The point is made that we do not seem to have these debates about a soldier's right to command land operations or a seaman's right to command naval operations. At the heart of this are the different perspectives and Service cultures about what is, and is not, deemed to be 'decisive' – the surface fight in the close battle or the more strategic effects based operations undertaken in the deep battlespace.

Indeed, air power is often termed a supporting force, but this is not always the case. For example, the US Combined Force Air Component Commander during Operation IRAQI FREEDOM in 2003 was the supported commander for the counter Theatre Ballistic Missile operations in Western Iraq and he was given operational control of the ground based special forces for this.

This paper articulates the concept of airmindedness as the way in which airmen perceive warfare and their place within it. Airmen have a particular view of the battlespace and as WGCDR Hinchcliffe states, this is not only because they are elevated above the battlefield and hence have a 'bird's eye view' of it, but also because they have a theatre wide perspective of the campaign that is as broad as it is deep – and only bounded by the range and speed of air power capabilities. Because of air power's inherent characteristics of flexibility and responsiveness and the fact that air power is usually a low density and high demand capability, air power can be quickly employed across the theatre in a seamless and integrated fashion. It is at its least effective when penny packeted in direct and ongoing support to a surface commander – where it is effectively tied to a slower operational tempo than what air power can generate if freed from these shackles. Additionally, the paper examines the important air power tenet of centralised control and decentralised execution with a scholarly explanation and convincing analysis provided on why it is as current today in irregular warfare as it was during World War II when the tenet was first applied by Air Chief Marshal Tedder.

As WGCDR Hinchcliffe states, airmen are best placed to command air power – but this is not an inherited right – it is a right earned through training, education, professional development and experience - in sum, professional mastery. All successful commanders need professional mastery. But the essential difference between surface commanders and air commanders is that air commanders also need air mindedness. All airmen should be aware of this difference and simply not assert their right to command air power by virtue of being an airman. They also have to be thoroughly prepared joint commanders, schooled in joint operations and as knowledgeable about land and sea doctrines and capabilities as land and sea commanders are expected to be aware of air doctrine and capabilities.

Disclaimer

This working paper was originally published as an A5 booklet in June 2010 (ISBN 9781920800512) and is presented here as a re-formatted printer friendly version. This work is copyright. Apart from any use as permitted under the Copyright Act 1968, no part may be reproduced by any process without permission from the publisher. 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. This document is approved for public release; distribution unlimited. Portions of this document may be quoted or reproduced without permission, provided a standard source credit is included.

I trust this paper will add a significant body of ideas to the ongoing development of air power and joint operations by the RAAF and ADF. It is also a very useful adjunct to AAP 1001.1 – Command and Control in the Royal Australian Air Force, released in September 2009 by CAF.

Group Captain R.J. Keir, AM, CSC
Director
Air Power Development Centre
Canberra

ABOUT THE AUTHOR

Wing Commander Mark Hinchcliffe is a Royal Australian Air Force navigator with 25 years of service. He is a graduate of the United States Air Force Air Command and Staff College with a Masters Degree in Military Operations. He holds a Diploma of Teaching Secondary Science and Mathematics, a Bachelors Degree in Politics with First Class Honours, and a PhD in International Relations. Mark has taught at the RAAF School of Air Navigation; in the Department of International Security and Military Studies at the Air University, Maxwell Air Force Base, Alabama; and, before taking up his current position as Chief of Air Force Fellow at the Australian Defence Force Academy, was the Deputy Director Air Power Development at the Air Power Development Centre.

The author has chosen to refer to commanding 'air power', rather than the usual commanding 'air forces', in an attempt to highlight the fact that air power is not only the possession of air forces—armies, navies and marine forces also possess air power. Further, the author wishes to make the point that air power is best commanded by 'airminded' individuals, regardless of their Service affiliation, and that it takes a particular 'air' philosophy to command air power to maximum utility, regardless of who owns or operates the air assets involved in generating that air power.

INTRODUCTION

It has become something of an article of faith in Western air and space power thinking that air power is most effectively employed when it is commanded by an airman; that is by someone with an intimate understanding of not only the roles and missions air power can perform, but one who also comprehends the unique characteristics of war in the third dimension. Curiously, however, while this may be a firmly held belief by most air forces, it is by no means an uncontested proposition and one which within the broader context of the ongoing air power debate, still tends to arouse strong passions on both sides of the argument.

The debate referred to here is that concerning the 'decisiveness' of air power and its place in military force that is reflected in air power and military journals, newspapers, magazines, and occasionally in television media, primarily in the Western world. This debate appears to stem from some lingering resentment over the independence of air forces and reaction to some excessively zealous claims of air power advocates as to the capability and decisiveness of air power. Typically, the question of command of air power also surfaces in these debates. The utility of air power, it would appear, for most protagonists is ineluctably tied to the question of the command of air power, and so the two are often raised in parallel. The question of the 'decisiveness' of air power, is for the large part a debate not worth having, but nonetheless one that appears to endure but just below the surface of much military discussion, raising its head quite predictably after each episode of conflict in which air power is employed. For example, the issue is debated in almost all literature regarding the use of air power in

Operation *Desert Storm* in 1991, Operation *Deliberate Force* in Bosnia in 1995, Operation *Allied Force* in Kosovo in 1999 and in Operation *Enduring Freedom* in Afghanistan in 2001 and Iraq again in 2003.¹

The term ‘curiously’ is used intentionally here. As with much of the air power debate, the question of commanding this form of military power tends to be one which is raised selectively to challenge the air power position with apparent disregard for the question’s implicit applicability for the other environmental forces. Command of air power by airmen has routinely been subject to question and debate, but seldom is the command of land or naval power similarly challenged, and this would appear to be a ‘curious’ thing.

It seems odd, to an airman, that air power should be seen in a different light, with regard to commanding its use, than naval or land power. The author is unaware of too many attempts by airmen to insist that naval forces ought to be, and would be more responsively, commanded by anyone other than a naval officer. Likewise, it is not a common cause for airmen to claim that land power ought to be, and would be more effectively employed, if it were commanded by anyone other than a soldier. Yet air power is of apparently such a unique nature some claim, as is periodically reflected in major defence journals, that it should be directly responsive to and commanded by surface force commanders. Discussion of the need for independent air forces also surfaces periodically in newspaper articles, ‘Letters to the Editor’, magazines and, most recently, online journals and blogs. Typically, these opinion pieces suggest that air forces ought to be re-integrated into the other Services, Army and Navy, primarily for reasons of economy or because the authors believe that air forces are unresponsive to the needs of the surface warfighters.² There are a number of related and somewhat confused issues here that might usefully be differentiated and dealt with individually to shed some light on this curious matter.

Like much of the ongoing discourse regarding the use and, in particular, the ‘decisiveness’ of air power, there is much in the debate of commanding air power that is facile and stems, one might be forgiven for thinking, as much from some residual form of ill feeling toward air ‘forces’ as from a desire to actually seek maximum utility in the employment of military power. But not all is vain posturing, for there are some serious issues regarding the application, command and utility of air power in modern warfare that surface in this discussion and which bear a little further investigation here.

To do so, this essay will begin with a very brief overview of the origins of several major independent air forces—for in these origins might be found some of the fundamental determinants of the utility of air power—then it will turn to a discussion of the notion of ‘airmindedness’, which has been particularly influential in shaping the debate regarding the command of air power. Finally, the paper will discuss contemporary thinking on joint force application in modern war. Through this it is hoped that further lively discussion concerning the effective and useful application of force in conflict can be stimulated.

INDEPENDENCE AND THE UTILITY OF AIR POWER

The particular journeys of the major air forces to independent status are, of course, as diverse and unique as the forces themselves are individual. The origins of those journeys, however, share some surprisingly common bases, and these bases reveal something of the nature of air power and how it ought to be commanded.

In the case of the Royal Air Force (RAF) for example, the particular circumstances of Prime Minister Lloyd George’s dissatisfaction with his military and naval commanders and the conduct of war during World War I significantly shaped the decision to pursue an independent air service, free from the overbearing constraints of

¹ Most recently, an article by Daniel Lake in the summer 2009 edition of *International Security*, (vol. 34, no. 1, Summer 2009, pp. 83–112) re-surfaces the debate regarding the decisiveness of air power as a coercive force in Kosovo in 1999.

² Robert Farley’s article, ‘Abolish the Air Force’, in the online version of *The American Prospect*, November 2007, is typical of this line of argument, as are the letters in the UK *Telegraph* online of 14 June 2009, in which several retired naval officers offer their opinion of the utility of the RAF (see <http://www.telegraph.co.uk/comment/letters/5525262/Abolish-the-Royal-Air-Force-to-make-the-Services-more-efficient.html>, accessed 12 April 2010). Occasionally, the topic comes up for discussion in one of the major defence journals, and while the standard of argument is more sophisticated, the general thrust remains consistently that air forces do not adequately support the more important surface forces and surface fight.

the Admiralty and the Military command. Following the recommendations of the Smuts Report³, the British Government established an air service on 1 April 1918 that would not only provide support to the surface forces engaged in battle on land and sea, but one which would be capable of independent action against the German war effort and its 'strategic' air power threat to the home islands.⁴ This Service would eventually be independent in administration, resourcing, operations to a significant degree and, most importantly, command. Although initially drawn from the more senior Services, future Royal Air Force commanders would be airmen. Airmen who not only understood the capabilities and limitations of the air weapon, but who through experience and contemplation also proved themselves most able to determine its effective utilisation.

The United States Air Force (USAF), coming to independence some 29 years after the RAF and after the experiences of both World Wars, grew out of a recognition that while the United States Army, Navy and Marine services would all retain substantial air power capabilities, the mission of providing 'strategic air power' in a nuclear Cold War age would be best served by an independent air service: an air service that saw its *raison d'être* not just in supporting the surface forces in air-land battle or in the protection of major fleet units, but in an independent strategic role of deterrence and global force projection in a time frame and scale unimpeded by surface progress.⁵ The USAF would be commanded by men who had lived through the grim struggle of waging air war against Germany and Japan, and who had seen firsthand the exponential power of comprehensive and massive air forces intelligently commanded and harmoniously integrated into combined campaigns—such as that in North Africa between 1941 and 1944.⁶

In somewhat similar fashion, albeit in very different domestic circumstances, the Royal Australian Air Force (RAAF) was born to independence on 31 March 1921 as much out of a need to settle the unseemly quarrel between the Navy and Army, as to provide a suitable structure for what was clearly going to be an increasingly important means of defending an island nation.⁷ It was Sir Richard Williams who, against the backdrop of Australian Flying Corps experience in World War I, proposed a system of national defence premised on the vital role air power could play in defending such a territorially vast yet sparsely populated country as Australia.⁸ Air power, as a means of not only projecting force rapidly and in expeditionary fashion, but as a means potentially of taking the fight to an adversary, seemed ideally suited to Australia's geopolitical circumstance. For Williams, herein lay the unique contribution to national defence that an independent air force could provide.⁹ In many regards, this was a uniquely 'air' perspective, and it was a concept of operations that perhaps only an airman would pursue with such vigour and perseverance.

Finally, the Israeli Air Force (IAF) progressed to independence out of recognition at the government level that in order to meet the particular needs of its strategic circumstance, and cognisant of the experiences of other air

³ With reference to the Smuts Report, see Basil Collier, *A History of Air Power*, Weidenfeld and Nicolson, London, 1974, pp. 6–69. In this, Collier hints that the objectivity of the report was perhaps questionable.

⁴ See as examples: John H. Morrow Jr., *The Great War in the Air: Military Aviation from 1909 to 1921*, University of Alabama Press, Tuscaloosa, 1993, pp. 246–251; Robert F. Grattan, *The Origins of Air War: The Development of Military Air Strategy in World War I*, I.B. Tauris Publishers, London, 2009; Sir John Slessor, *The Great Deterrent*, Cassell, London, 1957, pp. 53–58; Sir Maurice Dean, *The Royal Air Force and Two World Wars*, Cassell, London, 1979, pp. 24–33; H. Montgomery Hyde, *British Air Policy Between the Wars: 1918–1939*, Heinemann, London, 1976, pp. 30–55; and Sir Philip Joubert de la Ferté, *The Third Service: The Story Behind the Royal Air Force*, Thames and Hudson, London, 1955, pp. 67–82.

⁵ Bernard C. Nalty (ed.), *Winged Shield, Winged Sword: A History of the United States Air Force, Volume I, 1907–1950*, pp. 371–398 and *Volume II, 1950–1997*, Air Force History and Museums Program, United States Air Force, Washington, DC, 1997, pp. 53–128; Benjamin Franklin Cooling (ed.), *Case Studies in the Achievement of Air Superiority*, Air Force History and Museums Program, Center for Air Force History, Washington, DC, 1994, pp. 44–53; and Benjamin S. Lambeth, *The Transformation of American Air Power*, Cornell University Press, Ithaca, NY, 2000, pp. 260–296. 'Strategic air forces' in the context of the USAF during the Cold War refers to a nuclear force.

⁶ Vincent Orange, *Tedder: Quietly in Command*, Frank Cass, London, 2004, pp. 137–201; Richard J. Overy, *The Air War, 1939–1945*, Europa Publications, London, 1980, pp. 64–78; and Geoffrey Perret, *Winged Victory: The Army Air Forces in World War II*, Random House, New York, NY, 1993, pp. 188–198.

⁷ C.D. Coulthard-Clark, *The Third Brother: The Royal Australian Air Force 1921–39*, Allen & Unwin, North Sydney, NSW, 1991, pp. 1–30; and Alan Stephens, *The Australian Centenary History of Defence – Volume II – The Royal Australian Air Force*, Oxford University Press, South Melbourne, Vic., 2001, pp. 25–36.

⁸ Alan Stephens, *Power Plus Attitude*, Australian Government Publishing Service, Canberra, 1992, pp. 27–29.

⁹ *ibid.*

forces, a strong independent and co-equal service was essential to ensure national survival in the face of hostile encircling neighbours.¹⁰ Although conceived within a joint operations framework, the IAF understood the need to be able to centrally allocate and command its available air assets to most effectively meet the myriad of challenges it would face. It did so, importantly, within a strategy designed to achieve control of the air as the essential precursor to further operations.

What strikes the author as common amongst these experiences is the shared recognition that in order to maximise the utility of air power it needed to be free of the inhibiting ties with surface forces. Not that it was considered superior to the surface forces, or that it should be excused of obligation to support the surface fight, but that independence—both institutional and operational—added to and increased the measure of force and efficiency that air power could bring to bear in a range of situations. Independence provided opportunity and utility beyond just the tactical application of force.

Considerations of the independence and the utility of air power raise two very important aspects of commanding air power that airmen typically see as fundamental to their case. First, while institutional and organisational independence is of considerable importance, it is so only to the extent that it facilitates the operation of an independent frame of mind to employ air power with maximum utility and effect. Second, while air power can decisively contribute to the tactical engagement, it can, in addition, strike beyond the ‘local’ to the ‘strategic’ in both geography and effect. The notions of ‘local’ and ‘strategic’ geography are in many respects outdated concepts in contemporary air power thinking.

Modern air power’s global capacity has perhaps rendered geography far less constraining than in times past. This is a central point in the case that air power advocates make for the capacity of air power to influence the entirety of even multiple theatres of operations. This second point, although a well-established hallmark of air power in the minds of air power advocates, is perhaps not as settled a matter as they might suppose.

AIRMINDEDNESS, PROFESSIONAL MASTERY AND STRATEGIC EFFECT

The notion of there being a particular mindset with which to employ air power is one that grew out of the experiences of air warfare in World War I in the first instance, but took substantial form and expression in what Richard Overy calls the ‘general’ air strategies of the Allies in World War II.¹¹ For Overy, a general air strategy was one that was able to incorporate all aspects of air power in an integrated and coordinated manner. It included not just the combat application of that power but the industrial, technological and training enterprises which established and sustained that air power also.¹² In order to achieve this level of air power sophistication, airmen imbued with a sense of what General Hap Arnold called ‘airmindedness’, developed tactics and concepts for effectively employing their air assets. They did so in a way that enabled them to meet all of the competing demands for air assistance, strategic strike, and air support across the range of theatres to the best of their ability and capacity.¹³ A general air strategy, it might be contended, was the product of a uniquely ‘airminded’ approach, an approach that was developed by those whose vision of the utility of air power stretched beyond a limited conception of support to surface forces.

Airmindedness, as Hap Arnold conceived the term, stems from an airman’s ‘particular expertise and ... distinctive point of view’, and is seen as a dynamic rather than static notion.¹⁴ ‘In its simplest form,’ according to Dr Dale Hayden at Maxwell Air Force Base, ‘air-mindedness is the lens through which Airmen perceive

¹⁰ M.J. Armitage and R.A. Mason, *Air Power in the Nuclear Age, 1945–82: Theory and Practice*, Macmillan, London, 1983, pp. 114–143; R.A. Mason, ‘Air Power as a National Instrument: The Arab-Israeli Wars’, in Alan Stephens (ed.), *The War in the Air 1914–1994*, Air Power Studies Centre, Canberra, 1994, pp. 181–183; Murray Rubinstein and Richard Goldman, *The Israeli Air Force Story*, Arms and Armour Press, London, 1979, pp. 61–121; and Eliezer Cohen, *Israel’s Best Defense: The First Full Story of the Israeli Air Force*, Orion Books, New York, NY, 1993.

¹¹ Overy, *The Air War 1939–1945*, pp. 203–211.

¹² *ibid.*, pp. 203–211.

¹³ Dr Dale L. Hayden, ‘Air-Mindedness’, in *Air & Space Power Journal*, vol. XXII, no. 4, Winter 2008, pp. 44–45.

¹⁴ *ibid.*, p. 44.

warfare and view the battlespace'.¹⁵ This idea of a peculiarly airman's perspective is one taken up by Richard Hallion, USAF historian, who suggests that the physical advantage of height that air power affords, allows not only a particular view of all below, but that in some fashion this 'view produces ... knowledge'.¹⁶ While the author would suggest that far too much has been made of this notion that somehow physical perspective can miraculously translate into superior knowledge, the broader concept of an airman's distinctive point of view as meaning a particular lens through which airmen view the conduct of war, is perhaps not only a valid point but an important one also.

For the RAAF, the term 'airminded' has largely been superseded by the more inclusive and positive phrase: 'professional mastery'.¹⁷ Consistent with a more businesslike approach to military affairs, professional mastery, as it pertains to air power, encompasses not only airmindedness, but technical mastery, relevant experience, and also an understanding of where air power fits into the use of force for national objectives. It is fair to say, however, that the core of the professional mastery of air power remains the unique perspective that airmindedness provides. Professional mastery of air power and airmindedness, therefore, represent the essential distinction between 'airmen' and others. They constitute, consequently, the most valuable contribution that airmen bring to the command of air power, and the most distinctive attribute that air power provides to the joint context.

If a study of the history of air power this past century reveals anything, it is that the advent of the air weapon fundamentally changed not only the means through which warfare could be waged, but the ways in which warfare could be prosecuted also.¹⁸ That is, the advent of air power precipitated a new perspective to warfare, one in which the physical terrain, the temporal context and the continuum of political objective and military task were fundamentally re-ordered. It is an appreciation of this change, and the particular capabilities and advantages that air power can bring to warfare in this context, that characterises what we generally mean by airmindedness and which an airman can most naturally and usefully bring to command.

The second idea that, in addition to decisively contributing to the tactical engagement, air power can strike beyond the 'local' to the 'strategic' in both geography and effect, is one that has caused more confusion and misrepresentation of air power's contribution than perhaps any other single notion. If it is an article of faith that airmen should command air power, then it is likewise a foundational belief amongst airmen that air power is an inherently 'strategic' instrument and that this holds some special significance for how air power ought to be commanded and employed.¹⁹

While this paper will not rehearse in any great depth the debate regarding the nature of the term strategic, or whether or not air power is in fact inherently a 'strategic' force or not, it is worthwhile noting a few important points regarding how air power 'ought' to be utilised. First, it is necessary to clarify that to speak of targets as being strategic is for the most part a common misunderstanding and misuse of the term. Things, quite properly are not themselves strategic or otherwise. To call something strategic is to make a value judgement as to the worth that someone attaches to it. What imbues a thing with a strategic value is in fact just that, the fact that someone has assigned or associates with that thing a strategic value or significance. Even here there is some confusion. Just because a thing has associated value, rightly terming that value 'strategic' is not only a matter of judgement but is contingent upon a range of factors and is temporally and contextually determined. Without

¹⁵ *ibid.*

¹⁶ Dr Richard P. Hallion, 'One Hundred Years of Air Power – Have We Learned Anything?', in Wing Commander Keith Brent (ed.), *100 Years of Aviation: The Australian Military Experience: The Proceedings of the 2003 RAAF History Conference*, Aerospace Centre, Canberra, 2004, p. 132.

¹⁷ As a broad concept, professional mastery is employed by all three Services of the Australian Defence Force (ADF). For the RAAF, it is defined in its highest level doctrine, Australian Air Publication 1000-D—*The Air Power Manual*, Fifth Edition, Air Power Development Centre, Canberra, 2008, pp. 17–36.

¹⁸ See for example: Robin Higham, *Air Power: A Concise History*, St Martin's Press, New York, NY, 1972; Walter J. Boyne, *The Influence of Air Power Upon History*, Pelican Publishing Company, Gretna, LA, 2003; Eugene M. Emme (ed.), *The Impact of Air Power: National Security and World Politics*, D. Van Nostrand, Princeton, NJ, 1959; Sebastian Cox and Peter Gray (eds), *Air Power History: Turning Points from Kitty Hawk to Kosovo*, Frank Cass, London, 2002; and Collier, *A History of Air Power*.

¹⁹ Phillip S. Meilinger, USAF, (ed.), *The Paths of Heaven: The Evolution of Airpower Theory*, Air University Press, Maxwell Air Force Base, Alabama, 1997; and Alan Stephens, 'The True Believers: Airpower Between the Wars', in Alan Stephens (ed.), *The War in the Air 1914–1994*, Air Power Studies Centre, Canberra, 1994, pp. 47–73.

pushing this line of argument any further, it is generally accepted that it is more useful to discuss strategic effects rather than strategic things, hence the destruction, dislocation, disruption to, or disintegration of, a thing may have a strategic effect, to or for somebody, but the thing itself is not considered strategic in any true sense.

That air power can be used to strike ‘strategic’ targets—that is targets to which we assign strategic significance—is not in question. What is in question, however, is what is the consequence of this fact. Does this imply that air power ought to be used in some particular or unique fashion? Does this make air power different or special with regards to other forms of force? If so, cannot sea and land power likewise have strategic effect? Indeed, cannot the actions of an individual soldier have strategic impact? It would seem to the author that there may be some confusion here between effect and the instrument which brings about that effect—a confusion perhaps between ends, ways and means. Air power can, and regularly is, used to create strategic effect. This fact, in and of itself, however, is insufficient to claim consequently that air power ought to be commanded in some special fashion, for as is suggested above, other forms of power might also create strategic effect. What is unique to air power, however, is the fundamental premise that air power ought to be employed first and foremost in the pursuit of strategic effect. This ‘belief’ has its roots in the theorising of the earliest air power thinkers, Douhet, Trenchard and Mitchell, and despite the conceptual limitations and temporal context of their original work, remains a core premise of air power thinking to this day. It is a proposition that has so infused Western air power thought as to become one of the essential bases of airmen’s understanding of the nature and form of commanding, employing and structuring air power and air forces.

Indeed, much of what has passed for air power theory over the course of the past century has been this unwavering faith in the ability of air power to reach and destroy ‘strategic’ targets deep in the enemy heartland, be they individual targets or systems.²⁰ This idea has shaped the employment and development of air power since the earliest airborne forays of World War I, and while we may debate the nature of these strategic targets (or indeed their strategic nature), what has been a reasonable and well-accepted fact is that airmen, for any number of reasons, feel a connection to this fundamental proposition. Furthermore, when given the opportunity to command forces, airmen will attempt to identify what they perceive as strategic focal points and target them accordingly. It is, this essay submits, this almost intuitive approach to warfighting that typifies the unique characteristic airmen bring to command. Further, this approach is a characteristic which, when properly harnessed within the total campaign framework, affords so much value to the airman’s perspective. Even if, as has been the case on occasion in the past, the airman’s perspective is excessively optimistic and parochial, to the point of raising the ire of his fellow commanders, it is the willingness to think on a scale, tempo and in a distinctive ‘strategic’ framework that distinguishes airmindedness and makes it an essential ingredient in modern campaigning. [The author hastens to qualify this point—a ‘strategic focus’ by airmen in no way precludes the same or better in naval or ground commanders; rather, the possession of such an outlook is what characterises the best airmen commanders.]

²⁰ See, for example, various works: Meilinger, *The Paths of Heaven*; Peter Paret (ed.), *Makers of Modern Strategy from Machiavelli to the Nuclear Age*, Princeton University Press, Princeton, NJ, 1986, pp. 624–647; Edward Mead Earle (ed.), *Makers of Modern Strategy: Military Thought From Machiavelli to Hitler*, Princeton University Press, Princeton, NJ, 1943, pp. 485–503; and Gérard Chaliand (ed.), *The Art of War in World History: From Antiquity to the Nuclear Age*, University of California Press, Berkeley, CA, 1994, pp. 891–910 and pp. 962–965.

THE JOINT CAMPAIGN

This then leads the discussion to the conduct of modern warfare and the place of the airman commander within it. Air Marshal Ray Funnell once described arguments about air power versus land power as ‘infantile’, and equally the same could be said of debates between any of the Services—as though modern war is ever waged within a wholly single Service context.²¹ For Western forces like the Australian Defence Force, the term ‘joint operations’ is no longer merely polite inter-Service rhetoric, it is the very basis of all planning and campaigning, and has obvious ramifications for command.²²

Joint, as is now quite often pointed out, in the Australian context does not mean ‘purple’. That is, joint operations, command, training and so forth do not imply that the single Service traditions, and the particular features and capabilities they bring to warfighting, need to be subsumed within some undifferentiated mass. Rather, joint now implies harmonised, integrated inputs to a holistically understood situation. Joint command, therefore, is premised upon the intelligent integration of the single Services (and other government agencies as appropriate) into one overarching strategy that connects political objectives with discrete but harmonised military tasks. The particular value that the single Services bring to this joint effort is not just the specific capabilities inherent to those Services but the particular mindset, doctrine and experience of operating those forms of power, be they sea, land or air. A wise joint force commander, whatever their Service stripe, will recognise the value in having an ‘expert’ command each of the environmental components, and will be cognisant of the peculiarities that each Service brings with its style of command—be it air power’s inevitable focus on what airmen think are strategic targets, land forces’ ever-present concern with manoeuvre and ground truth, or Navy’s desire to attain some measure of sea control.

As an example of effective joint command, we need look no further back than the allied efforts against Saddam Hussein’s regime in Iraq in 1991, although there are ample good examples as far back as World War I. General H. Norman Schwarzkopf, as commander of coalition forces, was an American Army general who in many respects was operating under the long shadow cast over American military competence by the Vietnam War—at least this was a popular perception of the condition that had come to infuse much of the American military since the 1970s.²³ Schwarzkopf’s knowledge of specific air and space aspects may in fact have been quite narrow, but as an experienced commander his astute intuition enabled him to perceive the essential merit of the USAF plan developed by Colonel John Warden and his team in ‘Checkmate’ under the guise of ‘Instant Thunder’.²⁴ Having determined that in the existing circumstances air power represented the best option for the prosecution of this particular campaign, Schwarzkopf was then wise enough to leave most of the detailed planning and execution of the air campaign to a professionally competent air staff.

Significantly, Schwarzkopf personally retained command of the ground forces. This arrangement, in effect and in practice, meant that he acted in the dual role of Commander-in-Chief (CINC) and Joint Force Land Component Commander (JFLCC). This decision, according to Lambeth, perhaps needlessly complicated the command relationships.²⁵ Schwarzkopf, who enjoyed a close working relationship with General Horner, his Joint Force Air Component Commander (JFACC), was able to effectively direct the apportionment of air power assets to strategic targets of his choosing in accordance with his conception of the overall campaign. The Corps Commanders, however, being somewhat more distant from the decision-making process, viewed some

²¹ Ray Funnell, *The Use of Military Power in the Kosovo Conflict: Military History Overturned: Did Air Power Win the War?*, a paper by Air Marshal Ray Funnell, at http://erepository.adfa.edu.au/courses/ZHSSGS10_422488.pdf, accessed 7 Apr 2009.

²² Department of Defence, Australian Defence Doctrine Publication–D.3—*Joint Operations for the 21st Century*, Department of Defence, Canberra, 2002; and Australian Air Publication 1000–D—*The Air Power Manual*.

²³ See, for example, Amos A. Jordan, William J. Taylor, Jr., and Michael J. Mazarr, *American National Security*, 5th ed., John Hopkins University Press, Baltimore, MD, 1999, pp.33, 61, 269 and 271.

²⁴ Michael R. Gordon and General Bernard E. Trainor, *The Generals’ War: The Inside Story of the Conflict in the Gulf*, Little, Brown and Company, Boston, MA, 1995, pp. 76–96, 187–190 and 465; William Head and Earl H. Tilford, Jr. (eds), *The Eagle in the Desert: Looking Back on U.S. Involvement in the Persian Gulf War*, Praeger, Westport, CT, 1996, pp. 112–113 and 299–300; Richard T. Reynolds, *Heart of the Storm: The Genesis of the Air Campaign Against Iraq*, Air University Press, Maxwell Air Force Base, Alabama, 1995; and Colonel Edward C. Mann III, USAF, *Thunder and Lightning: Desert Storm and the Airpower Debates*, Air University Press, Maxwell Air Force Base, Alabama, 1995, pp. 27–47, 98–99 and 163–181.

²⁵ Lambeth, *The Transformation of American Airpower*, pp. 133–135.

air power apportionment decisions as being evidence of the JFACC's targeting priorities lying with Air Force interests, rather than in direct support of what they saw as more vital tactical level ground operations.

In the event, 40 of the 46 days of the Gulf War were dominated by the coalition's application of air power to devastating effect.²⁶ In this instance, an Army commanding general exercised command over air, land and sea power but, significantly, he did so within the construct of joint component commands in which the specialist expertise in each environment was commanded by their respective Service. While Schwarzkopf developed and implemented the overall strategy, which was to prove so effective, the planning for the 'best' application of the individual environmental components, and their eventual execution, was provided by specialist airmen, soldiers, sailors and marines. Again, significantly, while Schwarzkopf retained overall command, and direct command of the land forces for himself, effectively, it was an airman who commanded the application of air power.²⁷

FORM AND FUNCTION

In an excellent 1996 *AirPower Journal* article, the then Colonel Richard Szafranski, perhaps best expressed the relationship between force command and force application when he argued that, as a matter of principle, 'the object of force application ought to determine the form of force control'.²⁸ Szafranski resurrected an important but largely forgotten principle from the works of Sun Tzu and Clausewitz, that the aim (function) of an operation ought to determine its form, not some *a priori* assertion of form distinct from considerations of function. Subsequently, he suggested that airmen may well be the best to command air power, as might soldiers be most suited to command land power, but that this relationship between Service and command is a functional one, not an *a priori* right based on Service alliance.²⁹ This, it would seem to the author, best captures the nature of the relationship between command and application, and the role of 'airmindedness' in commanding air power operations. It is the functions that air power can perform that ought to determine the form of its control, while it is an understanding of how to best employ air power to perform those functions, that ought to determine who commands it. If that happens to be an airman then well and good, if for particular functions it happens to be a soldier, such as was the case in Gulf War I, then so be it. Ultimately, however, as nearly a century of experience suggests, it is almost invariably an airman who best understands how to employ air power to perform the functions required in a given circumstance; consequently, it is generally an airman who will most usefully command air power. This ability to command is, however, a functional consequence not a right, and for airmen to exercise this function it is incumbent upon them to be prepared, exercised and educated to that purpose. Thus, with the privilege of command comes the responsibility of expertise.

CENTRALISED CONTROL, DECENTRALISED EXECUTION

The final issue this paper will address is that regarding one of air power's pivotal tenets: the centralisation of control and decentralisation of execution. Amongst the canon of air power beliefs, the centralisation of control is one that not only appears to have survived the test of many years but is one that is seen by many air power advocates and airmen as the cornerstone of all air power doctrine, and certainly no discussion of the application of air power is complete without at least reference to it.³⁰ It is worth noting at the outset that, while the tenet refers to centralised 'control' not 'command' of air power, in the context of this discussion it is reasonable to

²⁶ I am indebted to Alan Stephens, in some unpublished lecture notes, for this quick synopsis of Schwarzkopf's leadership in Operation *Desert Storm*.

²⁷ Gordon and Trainor, *The Generals' War*; Reynolds, *Heart of the Storm*; and Mann, *Thunder and Lightning*, p. 47.

²⁸ Colonel Richard Szafranski, USAF, 'Twelve Principles Emerging from Ten Propositions', in *Airpower Journal*, vol. X, no. 1, Spring 1996.

²⁹ *ibid.*

³⁰ Australian Air Publication 1000-F—*The Future Air and Space Operating Concept*, Air Power Development Centre, Canberra, 2008, p. 28; United States Air Force, Air Force Doctrine Document 1 (AFDD 1), *Air Force Basic Doctrine*, United States Air Force, 17 November, 2003, pp. 27–30; Royal Air Force, AP 3000, *British Air and Space Power Doctrine*, Fourth Edition, Air Staff, Ministry of Defence, 2009, pp. 61–65.

suggest that ‘control’ of air assets is a function performed by either one in command of those assets or by one who has been delegated control of those assets for specified tasks by the relevant commander. ‘Control’ in the context of the tenet ‘centralised control ...’ refers usually (and for the purposes of this paper) to the general act of directing air power to certain ends, not the specific (legal) command arrangements established in particular circumstances. The distinction is one between a notion of ‘authority’ to command and the actual practice of directing forces.³¹

For airmen, the notion of centralising control of all air assets while decentralising the execution of air power missions is the result of the wise distillation of many years of experience. In World War I, it was largely an idea whose time had not yet come, although, for example, Sir Hugh Trenchard attempted to centralise his independent air force operations on the Western Front. Even as early as the 1916 Somme summer offensive, Trenchard had stressed the primacy of gaining control of the air and had organised his Headquarters’ Wing as a centralised offensive formation to give practical reality to the notion of centralised coordinated effort.³² For the most part, however, air forces tended to be fragmented aerial forces that parcelled out air assets to meet various requirements for the ever-present contingencies. Squadrons were often ‘allocated’ or assigned to armies and, typically, the short and intense life of a fighter pilot in this conflict was centred upon his squadron and its defence of its particular plot of territory, rather than as part of a greater coordinated air effort.³³ As Morrow noted in his seminal work, ‘all three major powers, and the lesser powers as well, considered the air war essentially an army cooperation war’, and as a consequence the allocation of air assets fell largely to the needs of ground commanders whose success at coordinating the air effort, at anything much beyond local needs, paralleled their success at coordinating the ground war.³⁴

It was not until World War II that the mantra of centralised control and decentralised execution was implemented in anything like a determined and successful fashion. In particular, the efforts of Lord Tedder in the North African and Mediterranean theatres reflected the vital importance of centralising and coordinating the Allies’ disparate air efforts and ultimately led to them convincingly defeating an entrenched superior force.³⁵ For Tedder, land and air power were to be treated as co-equal and interdependent forces, and while land power was generally constrained by its immediate geography, the ability of air power to range over large distances across the length and breadth of a theatre of operations meant that its most effective and proportionate employment necessitated centralised control and apportionment, both in support of the surface fight and in search of targets of strategic significance. In theatres as vast as the Mediterranean and North African, with constrained air resources and surface forces, only a theatre-wide command overview would allow the scarce air resources to be allocated to greatest effect in accordance with the theatre campaign strategy—even if at times this meant that the most pressing tactical need did not receive all the air support it required or deserved.³⁶

From these and subsequent experiences in the application of air power in combat, the control of air power from a centralised position, whilst allowing for the decentralised and independent execution of that force, grew into the foundational proposition that it is today.

³¹ As example the Chief of Air Force (CAF) has full command of the RAAF as a legal responsibility, but he may not in any given circumstance actually exercise that authority. He has, for example, delegated command of operational air units to the Air Commander Australia (ACAUST). The act of commanding and the authority of command, whilst usually coincident, are conceptually different things.

³² Morrow, *The Great War in the Air*, pp. 165–169; and Collier, *A History of Air Power*, pp. 56–59.

³³ Morrow, *The Great War in the Air*, pp. 349–378; and Collier, *A History of Air Power*, pp. 43–82.

³⁴ *ibid.*

³⁵ Overy, *The Air War, 1939–1945*, pp. 64–78; Orange, *Tedder: Quietly in Command*; and Perret, *Winged Victory*, pp. 175–176, all refer to the North African air campaign.

³⁶ Perret, *Winged Victory*, pp. 176–182.

CHALLENGES TO ORTHODOXY

But this idea has, especially in recent years, come under some challenge. Firstly, from those who propose that advanced sensor fusion and advanced combat networks have so enhanced the ability of commanders to command from afar that the need to distinguish and separate control and execution is no longer as vital as it once was. Secondly, in an intellectual environment in which a focus on irregular warfare has captivated the security discourse, others have been led to challenge the notion that centralised control is an appropriate or effective framework within which to construct strategies to employ air power. First, the matter of enhanced command capacity will be discussed.

In a telling analysis of Operation *Enduring Freedom*, Benjamin Lambeth continues his examination of the evolution of American air power and particularly its capacity to ‘command at distance’.³⁷ As a consequence of American air power dominance, its unparalleled Intelligence, Surveillance and Reconnaissance (ISR) capabilities and its capacity for global connectivity and networked sensor fusion, the US has the ability not only to ‘reach back’ for necessary resource support but is increasingly tending to ‘reach forward’ and exert virtual command presence from its remotely located geographical command headquarters. This is a process Lambeth terms centralised control and centralised execution.³⁸ This trend, as Lambeth suggests, tends not only to weaken the tenet of centralised control and decentralised execution in practical application, but it undercuts the very basis of mission command which is so essential to flexible adaptive campaigning. In practice, the long arm of remote command interferes with efficient operational conduct leading to a considerably delayed response and a congested and lengthened kill chain.³⁹ While technology has the facility to enhance effective command, even at a distance, if not managed intelligently, as Lambeth and others suggest, it can lead to a degradation of effective operations by acting at cross-purposes to the intent of centralised control and decentralised execution.

The second challenge concerns the appropriateness of this important tenet to a new and dynamic security environment that is characterised by the prosecution of irregular and asymmetric warfare by a diverse array of state and non-state actors. In such dynamic and reactive circumstance, centralised control of any force element is considered by some as anathema to effective operational conduct.⁴⁰ While superficially plausible, this line of argument fundamentally misunderstands, or perhaps even misrepresents, the logic of ‘mission command’ that underpins the intent of centralised control and decentralised execution. To use a term that John Boyd somewhat resurrected, the intent of decentralised execution encompasses the notion of *auftragstaktik*. *Auftragstaktik* is an understanding of command in which the subordinate agrees to take near-term actions in keeping with the commander’s intent—or what we commonly refer to today as ‘mission command’.⁴¹ Within this concept of mission command, the devolution of the practical execution of the clearly understood commander’s intent to the appropriate operational or tactical level is the basis of being able to apply force in a flexible and, most importantly, adaptive manner. In circumstances such as those encountered in irregular and unconventional war, the ability to adaptively utilise the agencies of force, diplomacy, information and the other elements of national power, is widely considered the most effective means by which to counter asymmetric threat. Centralised control and decentralised execution of air power, although not a new concept, is one that recognises the importance of adaptability and creativity in the application of force, specifically air power.

³⁷ Benjamin S. Lambeth, *Air Power Against Terror: America’s Conduct of Operation Enduring Freedom*, RAND National Defense Research Institute, Santa Monica, CA, 2005, pp. 324–330.

³⁸ *ibid.*

³⁹ *ibid.* Lambeth demonstrates how that the target approval process in Operation *Enduring Freedom* rapidly became ‘oversubscribed’, slow and laborious, by the process of ‘reach forward’ leading to the efficiencies of operator excellence and enhanced network connectivity being eroded in practical application. It became apparent to Lambeth, and others within the system at the time, that the slowest link in the chain was the overblown approval process conducted by the remote headquarters in Tampa and Washington.

⁴⁰ Lieutenant Colonel Clint Hinote, USAF, *Centralized Control and Decentralized Execution: A Catchphrase in Crisis?*, Research Paper 2009–1, Air Force Research Institute, Maxwell Air Force Base, Alabama, 2009, pp. 35, 60 and 64. The argument is made that in irregular warfare command ought to be devolved to the lowest possible level and that for air power this means assigning control of air assets to ground units in direct support.

⁴¹ Grant T. Hammond, *The Mind of War: John Boyd and American Security*, Smithsonian Institution Press, Washington, DC, 2001, p. 152.

Today, experience in operations across Afghanistan highlights the continued relevance of this precept, as a multinational coalition strives to make headway in providing some measure of security against the determined actions of a motivated, disparate, yet adaptive, irregular adversary. Interestingly, in this coalition environment in which the various national forces operate relatively autonomously within their geographical areas of responsibility, air power is centrally controlled to outstanding effect. With a multitude of concurrent tactical operations underway at any one time across the expanse of Afghanistan, the provision, deconfliction and strategic apportionment of air assets is a major control issue. The provision of almost ubiquitous aeromedical evacuation (AME) support to coalition forces, for example, is a textbook example of the necessity and veracity of the tenet of centralised control and decentralised execution, especially in an irregular and unconventional conflict such as that which is continuing to unfold in Afghanistan. No one national force has the resources, scope and capacity to provide the level of AME support currently available to all coalition forces in theatre. Consequently, the judicious centralised apportionment of the joint and coalition AME assets affords a net capability far exceeding that possible by any independent national effort. Similarly, the delivery of airlift and close air support (CAS), for example, are the result of pooled air resources providing joint and coalition effect across the extent of the theatre. This effective centralised control of scarce multinational resources is the result of determined adherence to the tenet of centralised control by airmen and commanders who understand how air power ought to be employed.⁴² Were national force commanders, for example, to insist that their organic air force elements be considered 'national only' assets for their express use (as may well be the want of some national ground commanders), then the sum effect of the coalition air system would not only be greatly diminished but the integrity and cohesion of the coalition effort would be concomitantly weakened.

While circumstances, context and location may change, and while the form of air power required remains contingent on the functions to be performed, so long as the allocation of air assets continues to be a matter of wise judgment, then the centralised control and decentralised execution of those assets would appear to be the most effective and efficient means of utilising air power.⁴³ Similarly, while the circumstances in which air power might be employed continue to change with the evolving security environment, having airmen command air power would appear to be the most effective means of bringing professional airmindedness to bear in any national campaign.

CONCLUSION

The command of air power will remain a matter close to the hearts of airmen, as no doubt will the command of land and sea power remain vitally important to soldiers and sailors. This paper has made the case that there are sound and historically supported reasons to believe that the command of air power is best undertaken by one who is not only thoroughly versed in the functions and roles that modern air power can perform, and the tenets of best practice by which air power is employed in the joint context, but by one who is also thoroughly cognisant of the limitations of air power. For the most part this has meant that air power is best commanded by airmen, not because they enjoy some *a priori* right to command air forces, but because most usually they have been the ones who have the most 'airminded' attitude towards the employment of air power.

Airmindedness, this paper suggests, is a particular understanding of air power, its functions, tenets, history and utility, that, while most often possessed by people in flying services, is ultimately a capacity that any intellectually open commander can hold. Historically, however, it has been the air services that have educated and inculcated a culture of airmindedness within their ranks. Initially, this acculturation process most probably grew out of the need to defend the newly won independence of the flying services from the designs of the older and generally more influential Services. But as the independent air forces grew more self-confident and assured, the nurturing of a particularly airminded way came to be a deliberate mechanism to preserve and promote the most effective utilisation of air power. Thus airmen and women, who have matured within this environment, tend to be the

⁴² I am indebted to Air Vice-Marshal Greg Evans (Deputy Chief of Joint Operations) for his insights into the effective employment and control of coalition air assets in current operations in Afghanistan.

⁴³ Lambeth, *The Transformation of American Air Power*, pp. 260–296.

most airminded commanders at senior rank and those most likely to command in a manner consistent with the precepts of air power application.

With a century of air power history, air forces, particularly independent ones, have refined and distilled a considerable body of relevant experience—across several world wars and numerous major, small and irregular wars—to a small number of air power tenets. Foremost among these is that of centralised control and decentralised execution as a universal framework within which to command air power to its best effect. This tenet, although challenged of late, remains a core concept in the application of air power throughout the major air forces. It is a concept that incorporates the necessity of judiciously apportioning scarce air resources across theatres of operation whilst allowing for and facilitating the effective operation of a system of mission command. In what many see as a triumph of function over form, the centralised control and decentralised execution of air power is informed by a recognition that air power can best contribute to the achievement of enduring warfighting needs through a functional approach. By adopting an approach that stresses air power's ability to fulfil functions rather than air-platform specific roles, with the devolution of mission command to the lowest possible level, the precept of centralised control and decentralised execution aims to adopt an adaptive and creative approach to the application of force. This ability to adapt to new and unexpected circumstances is a hallmark of modern air power thinking and a view of warfighting that is common in airminded commanders.

This paper has also advocated, however, that the matter of the command of air power should not be one of dogma nor of dogmatic adherence to Service parochialism. Rather the argument here has assumed the stance that air power is best commanded, to practical effect, through the means of an air campaign—an air campaign that is clearly understood to be but one component of a coherent national (or coalition) campaign—by those professional servicemen and women in possession of an 'airman's mind'. The ADF's view with regard to campaigning is quite clear and there is no place in Australian doctrine or thinking for independent single Service campaigns. This paper likewise, while espousing the utility of an air campaign commanded by an 'airman', is concerned to note that air campaigning is, whilst a vital component in modern warfighting, but just one contributing element within a national effort.

Recent experience has shown that modern joint warfighting demands far more of our commanders than parochial thinking along Service lines: it requires an informed flexible intellect cognisant of the overall political objectives sought. It also requires a thorough understanding of the strengths, principles and limitations that each Service brings to the fight, and for airmen that unequivocally means an airmindedness developed through experience and contemplation. Modern air power, like modern land and sea power, has become, with the increased complexity and interconnectedness of modern life, a practical and intellectual discipline of considerable dimension. A discipline, that requires not only years of considered experience and studious application to comprehend in anything like a thorough fashion, but which also requires open and inquiring minds which, above all, are acutely aware of the political nature of all war and the limits and utility of force in such circumstances.