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## **FLAWED DOCTRINE: THE PROBLEM WITH *CENTRALISED CONTROL AND DECENTRALISED EXECUTION***

*By Squadron Leader Travis Hallen*

*No man ever steps into the same river twice, for it is not the same river and he is not the same man.*

**Heraclitus**

In his 1988 study into the command arrangements of the Australian Defence Force (ADF), then Brigadier, later General, John S. Baker stated that:

The advent of air power, its rapid development to a significant component of national power and its influence on all forms of military operations is the greatest complicating factor in present day command arrangements.<sup>1</sup>

Airmen have sought to address this issue through the promotion of an ostensibly straightforward and simple tenet as the basis for modern air power command and control: *centralised control and decentralised execution*. Adherence to this tenet, it is claimed, will result in 'air power's efficiency and effectiveness [being] maximised and flexibility ... ensured'.<sup>2</sup> However, by oversimplifying the exceedingly complex and nuanced organisational concepts that underpin air power, and relying on a tenet so seductive in its simplicity, the drafters of modern air power doctrine have, in effect, discouraged understanding of the principles of command and thereby risked creating a generation of airmen bound to a 'one-size-fits-all' organisational construct. The result will be organisational inflexibility that runs counter to the lessons of a century of air operations, and which is incompatible with the development of an air power capability able to meet the demands of the modern battlespace. The continued promotion of *centralised control and decentralised execution* as the cornerstone of air power command and control must therefore be acknowledged as flawed doctrine, and airmen must re-evaluate their approach to the organisational aspects of air operations.

Criticism of airmen's reliance on a catchphrase as the basis for their approach to command and control is not new. *Centralised control and decentralised execution* is attracting an increasing level of critical attention in the US military, particularly in the light of the experience gained during operations in Iraq and Afghanistan. In Australia, however, the position of *centralised control and decentralised execution*, as the cornerstone of command and control in the Royal Australian Air Force (RAAF), remains largely unquestioned.<sup>3</sup> This represents a considerable failing in the conceptual underpinnings of Australian air power. Resource constrained, yet seeking to maintain its position as a middle power, the ADF can ill-afford to blindly accept flawed doctrinal concepts. The aim of this paper is therefore to revitalise the

<sup>1</sup> Brigadier John S. Baker, *Report of the Study into ADF Command Arrangements*, Headquarters Australian Defence Force, Canberra, 1988, pp.4-16.

<sup>2</sup> Royal Australian Air Force, Australian Air Publication 1001.1 - *Command and Control in the Royal Australian Air Force*, Air Power Development Centre, Canberra, 2009, pp.2-5.

<sup>3</sup> A notable exception is: Wing Commander Mark Hinchcliffe, *Commanding Air Power: Some Contemporary Thoughts*, Working Paper 30, Air Power Development Centre, Canberra, 2010. Hinchcliffe emphasises that 'the aim (function) of an operation ought to determine its form, not some *a priori* assertion of form distinct from considerations of function'. However, Hinchcliffe continued to re-emphasise centralised control and decentralised execution as a 'foundational proposition' for modern air power.

intellectual and doctrinal debate on the conceptual basis of the Australian approach to air power command and control.

This paper focuses on two objections to current ADF doctrine. First, reliance on a 'bumper-sticker'<sup>4</sup> as the basis for developing command arrangements is unwise; it discourages understanding, inhibits flexibility and promotes blind-adherence. Second, modern views of air power command and control stem from a misinterpretation of past experience, a misinterpretation that has become conventional wisdom.

Over the past century, airmen have learned valuable yet costly lessons on how to optimise the contribution of military aviation to joint operations. These lessons highlight the need for an understanding of the principles of command and flexibility in their application to ensure that the air component of a force is structured to support the realisation of a commander's strategy. It follows that understanding and flexibility must therefore be the basis of air power command and control doctrine, for there can be no single organisational structure that will satisfy the requirements placed on air power in all cases. Every operation no matter how similar they may appear is different, and as van Crevelde stated in his seminal work on *Command in War*:

Command being so intimately bound up with numerous other factors that shape war, the pronouncement of one or more "master principles" that should govern its structure and the way it operates is impossible.<sup>5</sup>

Continued reliance on *centralised control and decentralised execution* creates an unacceptable risk that a generation of airmen will be intellectually wedded to a 'one-size-fits-all' approach to air power command and control. Air power must adjust and adapt to the changing nature of the operations in which it is employed, this will not be possible in the absence of flexibility in its command and control arrangements. As the growth of organic land-force air power in response to the requirements of operations in Afghanistan and Iraq has demonstrated, if air power does not adapt, its relevance to modern operations, and by extension, its independence, will become increasingly questioned.

### THE PROBLEM WITH BUMPER STICKERS

Dogmatic adherence to a single organisational construct will not allow for the full realisation of air power's potential in modern joint operations. This is one of the core criticisms levelled at the continued promotion of *centralised control and decentralised execution* as the cornerstone of air power command and control. It is a criticism that rests on the fine distinction between 'doctrine' and 'dogma'. Appreciating this distinction and the implications for when doctrine becomes dogma is therefore an important step in understanding why current air power doctrine must be revised.

Appreciation begins with definition, and the most useful definition of 'doctrine' is that by which it defines itself: 'the fundamental principles by which the military forces or elements thereof guide their actions ... It is authoritative **but requires judgement in application**'.<sup>6</sup>

The codification of these fundamental principles promotes internal cohesion within a force, facilitates operations across Service boundaries, and enables a force to maximise its autonomy.<sup>7</sup> However, codification also creates the risk of blind-adherence, threatening the potential for 'judgement in application'. Fuller most eloquently stated this risk:

<sup>4</sup> Colonel Rolanda Burnett Sr., *Articulation Beyond a Bumper Sticker*, Air War College, Maxwell Air Force Base, 2010, p.1.

<sup>5</sup> Martin van Crevelde, *Command in War*, Harvard University Press, Cambridge, 1985, p.261.

<sup>6</sup> Department of Defense, Joint Publication 1-02: *Dictionary of Military and Associated Terms*, Amended Edition as at 31 July 2010, Department of Defense, Washington DC, 2001, p.143. Emphasis added.

<sup>7</sup> Theo Farrell, 'Making Sense of Doctrine' in Michael Duffy, Theo Farrell & Geoffrey Sloan (eds.), *Doctrine and Military Effectiveness: Proceedings of the Conference held at Britannia Royal Naval College, January 16<sup>th</sup>-17<sup>th</sup>, 1997*, Strategic Policy Studies Group, Exeter, 1997, pp.1-5.

In its ultimate relationship to the human understanding ... doctrine is nothing else than common sense - that is, action adapted to circumstances. In itself, the danger of a doctrine is that it is apt to ossify into a dogma, and to be seized upon by mental emasculates who lack virility of judgement, and who are only too grateful to rest assured that their actions, however inept, find justification in a book ...<sup>8</sup>

In this quote, Fuller provides a simple test to delineate between doctrine and dogma: a person is being dogmatic if he cannot explain why a particular course of action has been adopted without reference to the 'requirements of doctrine'. Understanding is therefore the point of differentiation between the two. In relation to *centralised control and decentralised execution*, the simplicity of the tenet makes gaining the requisite understanding of the principles and lessons upon which it is based difficult. Achieving understanding is further complicated by the imprecision of the tenet's terminology. The relative nature of 'centralisation' versus 'decentralisation', and the blurred line between 'control' and 'execution' almost invariably creates confusion.

RAAF command and control doctrine, Australian Air Publication 1001.1 (AAP 1001.1) attempts to overcome this confusion by defining how centralised control is achieved, namely:

by a senior commander with dedicated planning staff ... to plan air campaigns and operations, and an air and space operations centre (AOC) to coordinate, integrate, **execute**, monitor and assess them.<sup>9</sup>

The use of the term 'execute' in defining the process of *centralised control* highlights the challenge inherent in clarifying an oversimplified concept. Confusion exists even for experienced airmen, as highlighted in an anecdote recounted by Kometer in which an AOC Chief of Combat Operations advised visiting aircrew that: 'We in Combat Operations'<sup>10</sup> represent the "decentralized execution" part of command and control'.<sup>11</sup> According to Kometer this statement received a 'stone-cold reception' from the assembled aircrew.<sup>12</sup>

The reaction described by Kometer is unsurprising, as aircrew tend to regard themselves, justifiably, as the decentralised executors of air power. However, decentralised execution can be said to occur whenever a number of subordinate entities receive direction from a common superior. Accordingly, decentralised execution can also relate to a Group, Wing or Squadron that is tasked to provide aircraft, or even the commands and units that the aircraft are tasked to support. Unfortunately, the definition of execution provided by AAP 1001.1 further blurs the line that separates 'control' from 'execution'.

AAP 1001.1 states that decentralised execution is 'enabled through the delegation of authority, direction and resources to accomplish specific tasks'.<sup>13</sup> Or to paraphrase, decentralised execution is enabled through the delegation of control. The use of terms such as Operational Control (OPCON) and Tactical Control (TACON) to denote the level of authority over resources that has been delegated reinforces this interpretation.

To summarise, 'centralised control' is defined as encompassing aspects of execution, while 'decentralised execution' is enabled through the delegation of control. This may appear to be an exercise in semantics, but it highlights the difficulty in understanding the current oversimplified conception of air power command and control. In the absence of this understanding, airmen default to the belief that air power can only be truly effective by concentrating decision making responsibility at the operational level of command, as advocated in AAP 1001.1. While this may prove appropriate in some instances, history has shown that this will not always be the case.

<sup>8</sup> Colonel J.F.C Fuller, *The Foundation of the Science of War*, Hutchinson & Co, London, 1925, p.254.

<sup>9</sup> Royal Australian Air Force, *Command and Control in the Royal Australian Air Force*, pp.2-4. Emphasis added.

<sup>10</sup> Combat Operations is a division within an AOC.

<sup>11</sup> Lieutenant Colonel Michael W. Kometer, *Command in Air War: Centralized Versus Decentralized Control of Combat Airpower*, Air University Press, Maxwell Air Force Base, 2007, p.213.

<sup>12</sup> *Ibid.*

<sup>13</sup> Royal Australian Air Force, *Command and Control in the Royal Australian Air Force*, pp.2-4.

## AIR POWER: A HISTORY OF ORGANISATIONAL PRAGMATISM

Air power's development in its first century has been more revolutionary than evolutionary in nature, with each decade creating new challenges and leading to innovation. Changes in technology and the operational environment have in turn placed a premium on flexibility and pragmatism in air power's application. Indeed, the experience of air power clearly demonstrates that there can be no single all-encompassing approach to the organisation of air operations; rather, historical experience supports the development of a strategy-based organisational framework. Through an examination of the organisational arrangements for air power in four conflicts - the First World War, the Second World War, Vietnam, and the Second Lebanon War - this section will highlight that it is flexibility not the strict adherence to the simplistic concept of *centralised control and decentralised execution* that must guide the employment of air power. Each conflict involved different forces, operating in different regions, with different strategic goals, yet they shared a common pragmatic approach to command and control that focused air power's contribution on the achievement of strategic ends.

### First World War

The First World War marked a turning point in the history of warfare. The first 'total' war, it was a conflict defined by the carnage of the trenches that stretched from the Channel Coast to the borders of Switzerland. Yet while the out-dated tactics of Army commanders were causing the deaths of hundreds of thousands of troops on the ground in brutal frontal charges, above the battlefield air power offered new hope of breaking the stalemate. But harnessing the advantages of reach, speed and flexibility inherent in this new technology required innovative strategic and organisational thinking. Without the luxury of historical precedent, or time for contemplation or study, developing effective command and control arrangements for air power was a process of learning while fighting. For the British, the result was the evolution of a structure built upon the requirement to ensure unity of command while maintaining a span of control that reflected the nature of the war and the limits of technology.

Prior to 1915, the British Army's Royal Flying Corps (RFC) units, though commanded by RFC officers, were placed under the direct orders of the General Officer Commanding the ground forces. This ensured that air and land forces were employed under a unified command arrangement.<sup>14</sup> This arrangement was possible due to the relatively small size of the British Army at the time.<sup>15</sup> The outbreak of war and the expansion of the British Army in France into numbered armies saw the RFC undergo a period of significant growth.<sup>16</sup> With this expansion came the realisation that centralised control of all RFC units by the Commander-in-Chief was no longer viable. The War Office determined that there was a 'necessity for decentralisation of command' with the result that the RFC was to be divided into a number of Brigades with each to be attached to a numbered Army.<sup>17</sup> Decentralised control was seen as necessary to ensure the commander's span of control did not exceed his ability to effectively employ available air assets in support of ground operations on the Western Front.

Within the RFC Brigades assets were further divided between Army and Corps Wings. This subdivision was along functional lines and reflected the division between Army and Corps areas of responsibility and roles. Army Wings focused on 'offensive action against the enemy's aircraft' and 'medium distance reconnaissance', operations deemed 'strategical' in nature.<sup>18</sup> The focus of the Corps Wings was on

<sup>14</sup> The National Archives (TNA) AIR 1/2126/201/77/1: Report on the Employment of the Royal Flying Corps in Army Manoeuvres, 1912.

<sup>15</sup> The British Regular Army comprised 250 000 men at the outbreak of the war. By the end of 1915, nearly 2.5 million men had volunteered.

<sup>16</sup> Personnel numbers increased from 1 244 in August 1914 to 57 897 in September 1916. Royal Air Force, MFC 77/13/62, Synopsis of British Air Effort throughout the War, War Cabinet Paper, 1 January 1919 as cited in Malcolm Cooper, *British Air Policy on the Western Front, 1914-1916*, PhD Thesis, St. Antony's College, 1982, p.57

<sup>17</sup> TNA AIR 1/529/16/12/72: RFC Re-organization into Brigades (Administration, expansion, establishments, etc) 25th Aug 1915-30th Nov 1916.

<sup>18</sup> *Ibid.*

'rendering, in one form or another, direct assistance to the troops on the ground'.<sup>19</sup> This delineation of responsibility translated into a further decentralisation of control, as outlined in instructions on the command of the RFC issued to the numbered Armies of the British Expeditionary Force (BEF):

(b) Army Wings are under the command of the B.G. [Brigadier General], R.F.C. Brigade and are employed under the orders of the Army Commander, the B.G., R.F.C. Brigade being responsible for the aerial methods adopted to carry out the order received.

(c) Corps Wings are under the command of the B.G., R.F.C. Brigade and he controls the work of the Corps Wing Commander with the following limitations:

Corps Squadrons are attached to Corps and while so attached are under the orders of the Corps Commanders. For all artillery and contact patrol work, close reconnaissance and photography in the Corps area Corps Squadrons will receive orders direct from Corps.

Brigade and Wing Commanders are only responsible for the aerial methods employed to carry out Corps orders.<sup>20</sup>

Decentralising control in this way was effective for two reasons. Firstly, it allowed Army and Corps commanders to effectively integrate air power into ground operations. Though assets might be shifted between Brigades and Wings to meet changing operational conditions, the commanders could have confidence that assets assumed to be available during the planning for operations would actually be available at the time of execution. Secondly, the question of how air power was to be employed rested with an airman; the ground commander's role was simply to provide intent. This arrangement answers many of the issues raised in current debates on air power command and control.

Reducing the span of control over air power assets, though operationally sound, was not without its issues. In a letter to General Headquarters BEF on 25 September 1916, then Major-General Hugh Trenchard, Commander of the RFC in France, expressed his concern that:

The closer co-operation of the Flying Corps with other arms, has led to a tendency on the part of Armies to issue instructions regarding procedure, methods of communication and kindred subjects, which, if not checked, will result in different systems growing up in different Armies and in some cases unsound systems.<sup>21</sup>

To Trenchard, standardisation was the greatest risk to air power effectiveness posed by decentralisation.

To address this concern, HQ RFC in the Field was given responsibility for:

All questions connected with training of personnel, technical matters and the methods by which aeroplanes and balloons are employed tactically.<sup>22</sup>

As the war progressed, centralisation began to extend beyond the requirements of standardisation and into other areas. The formation of the Independent Force 'for the purpose of carrying out bombing raids on Germany on a large scale'<sup>23</sup>, being the most often cited example of this; the formation of Flying Circuses to provide Defensive Counter Air over the entire front is another. But these were the

<sup>19</sup> Henry N. Wrigley, *The Battle Below: Being the History of No.3 Squadron Australian Flying Corps*, Errol G. Knox, Sydney, 1935, p.31.

<sup>20</sup> 'Organization, employment and command for tactical and administrative purposes of the RFC' issued by General Headquarters BEF to First, Second, Third, Fourth and Fifth Armies dated 30th November 1916. *Ibid.*

<sup>21</sup> *Ibid.*

<sup>22</sup> *Ibid.*

<sup>23</sup> Letter to Major-General Hugh Trenchard from Secretary of the War Cabinet dated 13 May 1918. TNA AIR 1/521/16/12/4: Independent Air Force, RAF.

exceptions that proved the rule. The control of military aviation during the First World War was decentralised to the level at which the span of control enabled its effective employment.

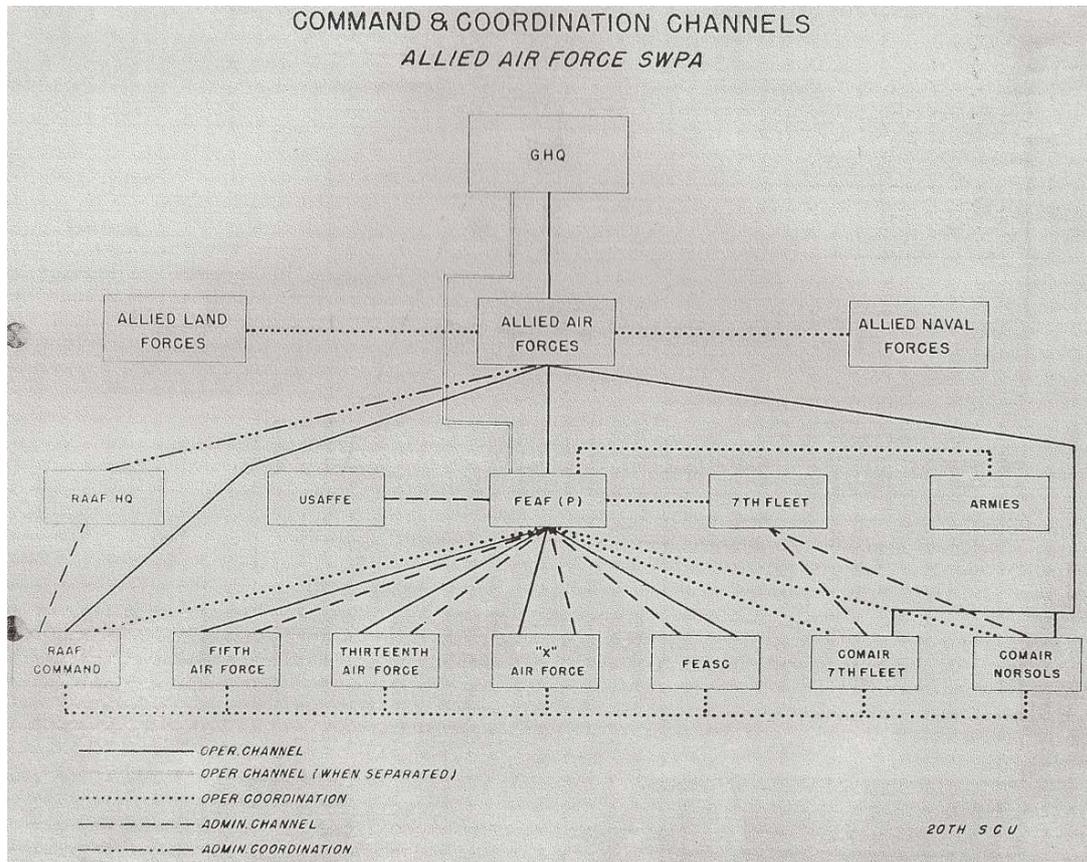
As the First World War drew to a close the capabilities of air assets were increasing rapidly. Over the course of the conflict fighter speed had increased 30 per cent and purpose-built bombers were developed with ranges of in excess of 500 miles.<sup>24</sup> These enhancements in aviation technology, and the return of offensive mobility towards the end of the War, set the stage for new challenges to the command and control of air power when the major powers would again clash two decades later.

## Second World War

While the First World War was the first 'total' war, the Second World War was the first truly global conflict. The geographic expanse of the conflict and the diversity of the theatres into which it was divided required different strategies to be adopted. Different strategies in turn called for different organisational arrangements and force compositions. Most commentators on command and control in the Second World War generally focus on operations in North Africa and Europe; however, this Euro-centric view ignores the organisational genius of General George Kenney and the effectiveness of his command of Allied air operations in the Southwest Pacific Area (SWPA).

Kenney commanded what was collectively referred to as the Allied Air Forces (AAF), the air component of General Douglas MacArthur's forces, comprising RAAF, United States Army Air Forces (USAAF) units, and a token contingent from the Netherlands East Indies. The integration of these forces presented Kenney with a number of challenges, and it was not until 1943 that the command arrangements had reached a degree of maturity that would enable them to be regarded as representing a fully evolved approach to command and control in the SWPA. Presented diagrammatically in Figure 1, the final structure at first appears complex; however, the organisational chart below belies the simplicity of the concepts upon which Kenney moulded his approach to air power.

<sup>24</sup> Martin van Creveld, *The Age of Airpower*, Public Affairs, New York, 2011.



**Figure 1: Command and Control Arrangements in the SWPA 1944<sup>25</sup>**

In the AAF organisational structure developed by Kenney it is possible to see the beginnings of the concept of centralised control as the foundation for air power command and control. It was in fact in a HQ AAF publication that 'centralised control' received its first official expression. *Standing Operating Procedure for Attack Aviation in Close Support: S.W.P.A*, released on 25 June 1943, a month before the publication of the Field Manual 100-20: *Command and Employment of Air Power*<sup>26</sup>, states:

The limited aviation forces available require that the forces be retained under centralised control for employment against objectives which are most important in furthering the plan of the Theater Commander. Whenever ground force action requires close support by aviation, all or part of the Air Forces will be employed for this purpose. The proportion of Air Force effort to be devoted to close support is determined by the Air Force Commander in accordance with directives by the Theater Commander, and with consideration for all objectives.<sup>27</sup>

This statement would appear to endorse the current approach to *centralised control and decentralised execution*. However, on further examination, it is clear that Kenney's approach reflected the primacy of strategic considerations in determining the control of air power, rather than any predilection for centralisation.

Underpinning air power command and control in the SWPA was the principle of unity of command, as reflected in HQ AAF General Orders from September 1943:

<sup>25</sup> Air Force Historical Research Agency (AFHRA), Allied Air Forces Southwest Pacific Area: Areas of Responsibility, IRIS No: 251468, Call: 706.204.

<sup>26</sup> War Department, Field Manual 100-20: *Command and Employment of Air Power*, United States Government Printing Office, Washington DC., 1943.

<sup>27</sup> HQ AAF General Orders Number 30 dated 11 December 1943. AFHRA, Allied Air Forces Southwest Pacific Area: General Orders, IRIS No: 251441, Call: 706.193

Variations in operational control ... are based on the principle that when designated Commanders are given a military objective they are likewise given operational control of units which are allocated to this task.<sup>28</sup>

In most situations, this translated into decision-making on asset allocation and the direction of effort remaining at the operational (HQ AAF) level. AAF Standard Operating Procedures (SOP) from September 1944, reflected a view that this should be the default state:

The ALLIED AIR Forces, in the conduct of its operations in the SOUTHWEST PACIFIC AREA, is charged with strategic missions in support of the command as a whole and, in addition, with tactical missions in support of the various Task Forces. The air operations of the ALLIED AIR Forces are controlled directly by the COMMANDER ALLIED AIR Forces, under directives from the GENERAL HEADQUARTERS, SWPA. These operations are exempted from the control of Task Force Commanders unless specifically placed thereunder, in exceptional circumstances, by directive from GENERAL HEADQUARTERS, SWPA.<sup>29</sup>

However, MacArthur's strategy though enabled by the 'strategic' application of air power, was an island-hopping strategy heavily reliant on the successful conduct of amphibious operations. Executing amphibious operations required a high level of coordination between land, sea and air forces, a level of coordination that could not be effectively achieved by retaining the control of air assets at the operational level.

Kenney was aware of the need for command flexibility in order to implement MacArthur's plans. Accordingly, he adapted the island-hopping strategy into an air-focused four-step 'formula for victory'<sup>30</sup>:

- 1) Gain air superiority.
- 2) Interdict supplies flowing into the area.
- 3) Destroy enemy's defensive systems.
- 4) Support amphibious and ground unit operations to enable the forward movement of the bomb line.

Operational level control was critical to achieving the first three steps of the formula. However, once achieved, the focus of air operations could then shift to support of the land and marine forces in executing the amphibious operations necessary to enable the forward movement of the bomb-line. Unity of command was critical to the success of these complex amphibious operations, and so in operations such as TULSA, the occupation and defence of New Guinea, New Ireland and the Admiralty Islands in 1942, command of **all** operations in the combat zone was vested in the 'Force Commander'.<sup>31</sup> Transferring the control of air assets to the supported commander accorded with the principle of unity of command embodied in the HQ AAF General Orders of September 1943.

The desire to ensure unity of command went beyond the execution of MacArthur's offensive strategy. Kenney acknowledged that successful defence also required 'unified action'. AAF SOP of September 1944 stated:

When a hostile landing attack against one of our occupied areas is imminent or in progress the operational control of all elements of the forces of the SOUTHWEST PACIFIC AREA in the

<sup>28</sup> HQ AAF General Orders Number 25, dated 9 September 1943. *Ibid.*

<sup>29</sup> HQ AAF SWPA Standard Operating Procedures: Instruction Number 20, dated 17 September 1944, AFHRA, Allied Air Forces Southwest Pacific Area: Standing Operating Procedures, IRIS No: 251471, Call: 706.204

<sup>30</sup> Taken from an outline Kenney drafted for an article in the Army-Navy Journal in 1944. AFHRA, Far East Air Forces: Outline of Material on Army Air Forces in New Guinea from Close of Papuan Campaign Through Invasion of Morotai, IRIS No: 256555, Call: 720.951

<sup>31</sup> AFHRA, Allied Air Forces Southwest Pacific Area: general Consolidated Files, IRIS No: 251429, Call: 706.168

threatened area passes to the control of the local Ground Force Commander in order to obtain unified action.<sup>32</sup>

For Kenney the centralisation of control was an important enabler of MacArthur's strategy; however, it was never regarded as an inviolate principle of air power. But as the Second World War drew to a close, the success of SWPA air power was dwarfed by the perceived effectiveness of the Twentieth Air Force, a force reporting directly to General 'Hap' Arnold, chief of the USAAF. Twentieth Air Force's conventional and atomic attacks on the Japanese home islands were pivotal in bringing about Japanese capitulation without the need for a land offensive, and established in the eyes of many airmen the inherent strategic nature of air power in the post-War era. As Muller states: 'The Twentieth Air Force, beholden to the Air Staff and not to any theater commander, seemed to be the pattern for the future.'<sup>33</sup> This represented the ideal of centralised control in its purest form, air power employed as a strategic asset and controlled at the highest level by an airman.

With the dawn of the nuclear age, the lessons and experiences of Kenney in the application of operational level air power in support of theatre aims, and the associated requirements to support the tactical level were overlooked, and were soon forgotten. Ironically, while airmen focused on understanding the implications of nuclear weapons on their role in future military operations, they remained heavily involved in the conduct of conventional operations. In Malaya, Korea and the Suez 'tactical' air power played an important and effective role. The folly of air power's nuclear focus became apparent during the Vietnam War, a conflict that to many represented the first major failure of air power.

### Vietnam War

The Vietnam experience offers valuable lessons on the challenge of controlling air power in a complex conflict, lessons that have had an enduring impact on modern air power theory. Indeed, it is arguable that the current preoccupation with *centralised control and decentralised execution* is the direct result of an ongoing backlash against the experience of Vietnam. Although the approach to the organisation of air power that developed during the course of US involvement in Vietnam has drawn consistent criticism, viewed objectively, these arrangements were logical and consistent with the chosen strategy. Whether the strategy itself was appropriate is another matter, and not something considered in this paper.

US strategy in Vietnam comprised two interrelated aims; the defeat of the Viet Cong (VC) insurgency in South Vietnam, and the removal of North Vietnamese support to the VC. Overlaying these 'positive' objectives was the 'negative' objective of avoiding direct Chinese or Soviet involvement.<sup>34</sup> Implementing this strategy resulted in the evolution of an organisational structure characterised by the division of air power control between tactical, operational and strategic commands. This was the antithesis of the modern approach.

The command situation during the Vietnam War is best described as a theatre within a theatre.<sup>35</sup> Overall command resided with Commander-in-Chief Pacific Command (CINCPAC) as theatre commander for South-East Asia. In the prosecution of the campaign against North Vietnam, Pacific Command (PACOM) drew on the air power provided by both Pacific Fleet (PACFLT) and Pacific Air Forces (PACAF). PACOM did not, however, exercise an integrated command authority over PACFLT and PACAF assets, instead each operated largely independently. Fighting the counterinsurgency war within South Vietnam was the responsibility of the Military Assistance Command, Vietnam (MACV). A land-centric, Army-dominated organisation, MACV maintained operational control over air power assets assigned to support counterinsurgency operations inside the borders of South Vietnam and in the

<sup>32</sup> AFHRA, General Headquarters Southwest Pacific Area: Standard Operating Procedure for Attack Aviation in Close Support, IRIS No: 253489, Call: 706.4501

<sup>33</sup> Richard R. Muller, 'The Air War in the Pacific, 1941-1945' in John Andreas Olsen (ed.), *A History of Air Warfare*, Potomac Books, Washington DC, 2010, pp.53-79, p.78.

<sup>34</sup> Mark Clodfelter, *The Limits of Air Power: The American Bombing of North Vietnam*, University of Nebraska Press, Lincoln, 2006.

<sup>35</sup> General William W. Momyer, *Airpower in Three Wars*, Reprint Edition, Air University Press, Maxwell Air Force Base, 2003, p.89.

southern portion of North Vietnam. As a result of this command arrangement there were in effect three primary air components operating largely autonomously within the South-East Asian theatre. This situation lasted until 1965 when the introduction of Strategic Air Command (SAC) B-52s, control over which was retained above theatre level by the Joint Chiefs of Staff (JCS), added a fourth air component.

From this division of air power sprang the defining feature of air power command and control in Vietnam, the much-maligned Route Package system, depicted in figure 2. Route packages provided the means for coordinating and deconflicting air operations between the three principal air components operating in theatre, PACAF, PACFLT and MACV. The allocation of primary responsibility for each route package reflected both strategic and practical concerns. Strategically, the delineation of air tasking responsibility reflected the two principle roles of air power during the conflict. Allocation of Route Package I to MACV recognised the requirement for MACV to shape and influence the immediate border region between the North and South to assist in their 'tactical' operations against the VC insurgency in South Vietnam. The attacks on the North, aimed at ending its support for the VC and reducing the North's ability to wage war against the South, were more strategic in nature and were therefore allocated to PACAF and PACFLT. From a practical perspective, the limited range of naval air power restricted the ability of PACFLT assets to extend too far inland, whereas PACAF assets, basing out of Thailand and South Vietnam with refuelling support, were able to reach the northern and western borders of North Vietnam. These practical considerations are evident in the division of North Vietnam between PACAF and PACFLT.



Figure 2: North Vietnam Route Packages<sup>36</sup>

<sup>36</sup> United States Military Academy Department of History, 'Vietnam and Vicinity, Rolling Thunder', *Our Atlases: The Vietnam War*, 11 June 2011, viewed 6 November 2011, <<http://www.dean.usma.edu/departments/history/Atlases/Vietnam/VietnamGIF/AF.gif>>

The Route Package system has been widely criticised. Momyer, a commander of the 7th Air Force<sup>37</sup> during the Vietnam conflict, stated that; 'Dividing North Vietnam into route packages compartmentalized our Airpower and reduced its capabilities'.<sup>38</sup> However, dividing responsibility between the counterinsurgency focused MACV and the 'strategic' operations of PACOM in this way represented a logical and strategically sound command construct, ensuring unity of command at the appropriate level to achieve the effective application of air power to meet specific aims. Where it did fail, however, was in the delineation of responsibility *within* PACOM. The decision not to place naval airpower under the operational control of PACAF in support of operations against North Vietnam was a deliberate decision made by CINCPAC and reflected the view that 'naval Airpower was an inherent part of the fleet, and its mission could not be separated'.<sup>39</sup> Given the absence of a credible naval threat, this view, one that continues to permeate current US thinking, can only be ascribed to unconstructive parochialism.<sup>40</sup>

The introduction of SAC assets into theatre in 1965 created a new command challenge as even 'airmen couldn't agree on the operational control of the B-52s'.<sup>41</sup> As the primary tool in the US strategic arsenal, the potential requirement to rapidly reassign B-52s from conventional operations over Vietnam to provide a nuclear response to a Chinese or Soviet escalation was the key factor in the decision to retain control of these assets at the JCS, strategic, level. Although senior Air Force leadership assessed the likelihood of Chinese and Soviet intervention as remote<sup>42</sup>, the consequences of any escalation into a general war between the superpowers necessitated that appropriate safeguards be put in place to enable an effective and timely response should the unthinkable occur. This decision is a textbook example of the requirement to ensure that control of scarce assets is retained at the most appropriate level. In this case, JCS control of the principle US nuclear response capability was deemed to outweigh the benefits of achieving unity of command over the skies of Vietnam.

Criticism of the command and control arrangements for air power throughout the Vietnam War are, in some respects, justified; however, a number of features of the organisational structure that were put into effect reflected a considered approach to optimising air power to meet both the positive and negative objectives of US strategy both in Vietnam and globally. The advantages inherent in the arrangements developed during this conflict are most clearly illustrated by the 2006 Israeli reprise of the decision to divide air-tasking authority between the commands responsible for tactical and those responsible for strategic operations. The Israeli experience of air power in the Second Lebanon War, like Vietnam, has provoked mixed responses, not least of which for the command arrangements in place at the time.

### Second Lebanon War

The immediate cause of the Second Lebanon War was Hezbollah's abduction of two Israeli soldiers on 12 July 2006. The Israeli response to the abductions was swift, with air strikes and artillery barrages launched against Hezbollah positions in southern Lebanon within 90 minutes of the abduction. However, as the name of the campaign suggests, Operation Change of Direction soon took on a much broader scope, reflected in the operational order issued on 12 July that charged the Israeli Defence Force (IDF):

to destroy Hezbollah's long-range rocket launchers and to damage the organization's launch capability, attack its soldiers, commands, and infrastructure, strike its symbols and assets, and destroy Hezbollah's infrastructures next to the Israeli border in order to establish a special security zone.<sup>43</sup>

<sup>37</sup> The 7<sup>th</sup> Air Force was re-established in March 1966 to direct the air war over Vietnam.

<sup>38</sup> Momyer, *Airpower in Three Wars*, p.106.

<sup>39</sup> Momyer, *Airpower in Three Wars*, p.102.

<sup>40</sup> US doctrine states that 'Navy assets normally are retained for employment in support of the assigned joint **maritime** missions.' Emphasis added. Joint Chiefs of Staff, Joint Publication 3-30: *Command and Control for Joint Air Operations*, Department of Defense, Washington DC., 2010, pp. 11-17

<sup>41</sup> Momyer, *Airpower in Three Wars*, p.112.

<sup>42</sup> Clodfelter, *The Limits of Air Power*, p.74.

<sup>43</sup> Itai Brun, 'The Second Lebanon War, 2006' in John Andreas Olsen (ed.), *A History of Air Warfare*, pp.297-324, p.305.

Air power was to play a critical, if not central role in the strategy developed to achieve Israel's exceedingly broad goals in Lebanon. Although ultimately unsuccessful in stopping the rockets falling on Israeli soil, the unique command and control arrangements in place to guide the air effort highlighted the pragmatism that defines Israel's approach to military operations.

Israeli air power is unique, unlike in other Western militaries where air power is dispersed across a number of Services, 'in Israel, air power is the Air Force.'<sup>44</sup> This concentration of air power within a single service, coupled with the relatively small size of the IDF and the limits of time and space within which it operates, has led the Israeli Air Force (IAF) to adopt a highly centralised approach to command and control. In the words of the IAF Head of Doctrine 'the IAF concept is centralised control and centralised execution.'<sup>45</sup> True to Israeli pragmatism, however, this is a guiding principle only, for in the IAF 'C2 is tailored to the needs of the situation. The leading factor is the effectiveness of the mission, not doctrine of any kind.'<sup>46</sup> Ironically, in early 2006 this conviction as to the primacy of flexibility led to the formal adoption of new command arrangements that would guide Israel's organisational structure during the Second Lebanon War.

Designed to pass 'operational and tactical control of assets to those entities that had the best situational awareness in a given area and the greatest capacity to conduct effective force employment'<sup>47</sup>, the 2006 revision of the concept of operations created three 'Forward AOCs', one embedded within each of the IDF's regional commands (Northern, Central and Southern), in addition to the IAF's Main AOC located in Tel Aviv.

During the Second Lebanon War, these new command arrangements translated into the division of responsibility for operations in Lebanon between the ground-centric Northern Command and the IAF, with the Litani River acting as the dividing line. South of the line Northern Command was the supported command, north it was the IAF. Put another way: south of the Litani air power was subordinated to the requirements of the ground commander, north the IAF commander had discretion to employ his assets to meet his tasked objectives.

The strategic targets, including Hezbollah's medium and long-range rockets, and headquarters buildings, were predominantly located north of the Litani, and attacks against them were therefore the focus of IAF operations. These operations were centrally planned and directed from the Tel Aviv AOC. In addition to the planning and execution of the 'strategic' air campaign, the Main AOC delegated the control of a number of air assets to the Forward AOC attached to Northern Command. Acting, in theory, as Northern Command's organic AOC, the Forward AOC was responsible for the employment of its assigned air assets against Hezbollah fighters and their short-range rockets closer to the Israeli border. The role of Forward AOC was to 'maximise the effectiveness of the ORBAT dedicated to them.'<sup>48</sup> Delegation of control did not, however, imply that HQ IAF had relinquished authority over its assets, and the Main AOC could, at any time, resume direct control of the delegated assets.

This novel command concept offered significant benefits over the centralisation that previously defined the Israeli approach to air power. Unity in the control of assets operating in its defined Area of Operations should have allowed Northern Command to more effectively integrate air power into the planning and conduct of operations. Additionally, it reduced the span of direct control, without reducing effective control, of the IAF, thereby freeing IAF planners in Tel Aviv to focus on planning and directing the strategic campaign. Flexibility was retained with the ability to reassign assets back to the control of the Main AOC as circumstances dictated.

Despite the potential benefits in the control of air power offered by this approach, 'in practice, the link between [Northern Command's Forward AOC] and the Northern Command headquarters failed to

<sup>44</sup> Lieutenant Colonel Roni Amir (IAF), Head of Doctrine Branch, interview by author, Tel Aviv, 11 October 2010.

<sup>45</sup> *Ibid.*

<sup>46</sup> *Ibid.*

<sup>47</sup> Benjamin S. Lambeth, *Air Operations in Israel's War Against Hezbollah: Learning from Lebanon and Getting It Right in Gaza*, RAND Corporation, Santa Monica, 2011, p.212.

<sup>48</sup> Lieutenant Colonel Roni Amir (IAF), Head of Doctrine Branch, interview by author, Tel Aviv, 11 October 2010.

operate effectively'.<sup>49</sup> One of the reasons offered for this failure was the compressed timeframe between the implementation of the new concept of operations and its actual operational employment. What is interesting to note, however, is that it is the actual execution of the concept that has attracted criticism, not the concept itself. This implies at least a tacit acceptance of the advantages of a more decentralised approach in the employment of Israeli air power. Indeed, as Lambeth points out:

A major lesson driven home by this new IAF experience, in the view of its current leaders, is the compelling need to decentralize air operations from the very start of combat by means of clear and actionable strategy and policy, a clear initial mission statement, and clear rules of engagement.<sup>50</sup>

The adoption of a more flexible approach to the command of air power by the bastion of air power centralisation must raise questions over the continued validity of *centralised control and decentralised execution* as the foundational proposition for modern air power. The Israeli experience in Lebanon in 2006, like those of the other conflicts described above, reinforces the view that *centralised control and decentralised execution* is not **the** solution to the complications air power presents to modern joint operations. It is at best one option from which commanders may chose to organise their air component to realise their strategic aims.

### THE WAY AHEAD

Almost a quarter of a century after the release of the Baker Review, air power remains 'the greatest complicating factor in present day command arrangements'. *Centralised control and decentralised execution* has not resolved this issue. Instead, the simplicity of the concept discourages the airman's development of the sophisticated understanding of the principles upon which effective, efficient and flexible air power must be based. Without this understanding the ADF is increasingly at risk of creating a generation of airmen intellectually bound to a single organisational construct as the basis for their approach to air power. This is an undesirable situation, as organisational structures must be developed and implemented to meet the demands of strategy, not the other way around. Accordingly, the continued promotion of a single 'one-size-fits-all' organisational concept will not promote the flexibility that air power requires to ensure its effectiveness in supporting modern joint operations.

The solution to this problem is simple: Doctrine writers must end their reliance on catchphrase concepts and instead promote the understanding of the principles of command as they relate to air power. History has demonstrated that the development and implementation of a flexible approach founded, not necessarily explicitly, on general and well-understood principles aligned with the strategy being employed, is the most effective basis for air power command and control. Furthermore, writing doctrine in this way will place the responsibility on airmen to understand the requirements strategy places on the organisational arrangements for air power, inspiring innovation rather than adherence to a 'cookie cutter' command construct.

Simple in theory, the solution offered in this paper may be more difficult to implement in practice. Though airmen have prided themselves on the innovation and technological advances that has defined their contribution to military capability from the outset, a century of experience has created a degree of doctrinal inertia. As air power enters its second century, overturning its 'principal tenet' of command and control will not be an easy process. However, as air power and the operational environment in which it operates continues to evolve, so too must the organisational arrangements that guides its employment. This will require flexibility, innovation and a strategic appreciation not possible if airmen continue to recite *centralised control and decentralised execution* without truly understanding the lessons from which it has developed.

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<sup>49</sup> Gabriel Siboni quoted in Lambeth, *Air Operations in Israel's War Against Hezbollah*, p.185

<sup>50</sup> *Ibid.*, pp.91-92