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**By**

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**Linking strategy to expeditionary: what are the defining characteristics of the RAF expeditionary experience and are these of relevance to the contemporary landscape?**

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## **Abstract**

This year marks the centenary anniversary of the start of the First World War, and with it the first deployment of British expeditionary air power. During the century that has elapsed, the Royal Air Force has been regularly employed on an expeditionary footing to enact British foreign policy. From the first foray of Trenchard's RAF over the deserts of the Middle East, through the total war experience in Burma, to the contemporary counterinsurgency (COIN) environment in Afghanistan, key British air power themes have emerged as enduring tenets: the need for control of the air, novel and credible attack, air transport operations and latterly intelligence and situational awareness. Underpinning all of these characteristics has been the requirement for integration with the Land Forces; an often downplayed and neglected necessity that has had to be re-learned, in contact, at every stage. Despite the varied historical timeline, political, economic and cultural circumstances of the deployments, the same key characteristics of the air power contribution have endured, and this continues to be of fundamental relevance when considering both the contemporary landscape and the uncertain future operating environment.

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## Introduction

In the century that has passed since the birth of military air power, expeditionary operations have become a central component of British political strategy and foreign policy. With few exceptions, the RAF has mostly been employed overseas, in a range of operations that span the core military tasks – from the early days of Empire policing, through total war, to stabilisation and COIN operations. Throughout, air power has displayed unique characteristics that have been central to the operations, regardless of the changing dynamics of circumstance, time, threat, duration or political context. The essay will analyse the contribution of British air power to three very different expeditionary air operations, all of them defining and in very different political and security contexts. The first will analyse the inter-war years, when the Government had to balance the responsibilities of Empire security in a climate of financial austerity following the First World War. The solution was air policing: the controversial deployment of a comparatively small number of aircraft across a vast swathe of the Middle East in order to coerce and stabilise disparate tribes. The second case study will analyse the expeditionary air contribution to total war against the Japanese Forces and the fight for Burma. In this case the long-term political strategy was focused on future trading and Empire, but the military strategy employed was a brutal and destructive campaign against the Axis Forces, which left the country bereft of infrastructure. Last, the third case study will consider expeditionary air power in the context of Afghanistan COIN and stabilisation operations.

Despite the very different political agendas and strategies, fundamental air power characteristics were established as key requirements for the operations and these have endured into the modern era; the trend is one of continuity not change.<sup>1</sup> Control of the air was essential, whether the environment was permissive such as during the inter-war years, or contested. Attack was a central tenet of coercion throughout, and offered a particular psychological edge, especially when the use of air power was novel. Air mobility was also crucial for successful operations, particularly so during the Burma campaign for resupply, and in Afghanistan where the political appetite for British casualties remained very low. Likewise, intelligence and situational awareness, and the requirement for commanders to see ‘the other side of the hill’, as the famous Wellington quote portends, has exponentially increased as technology has advanced. In all three cases, the contribution of air power enabled success: the operations were unlikely to have succeeded without air power, and equally air power could not have succeeded on its own. However, underpinning the operations was the critical concept of integration, a key prerequisite that was neglected in favour of single service agendas, and had to be consistently re-learned. Sub-themes also emerge: the psychological impact of novelty and technological advancement; the demand for air support always

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<sup>1</sup> Sir Stuart Peach quoted in Peter Gray, *British Air Power* (London: TSO, 2003), 51.

outstripping the supply; the requirement for precision attack and the concerns over collateral damage; the increasing influence of the media in the globalised world; the futility of air power as a lever of strategy in the wrong environment; and the reputational and capability issues borne of alliance operations.

In order to conduct the analysis, five sections will be presented. The first will consider the nature and definition of strategy and expeditionary operations. Second, the role of expeditionary enablers will be acknowledged as central, but not in a defining or battle-winning context. Next, the three case studies will be analysed in turn: the inter-war years, the Burma campaign, and Afghanistan. The essay will conclude that despite the very different character and political contexts of the case studies, the key roles of air power endure, and integration as a key ingredient of joint action has been repeatedly overlooked and neglected.

Given the broad scope of the subject, a significant spectrum of different source material has been consulted, including memoirs, academic analysis, official historical military publications, doctrine, books and current media. However, it must be remembered that source material not only reflects a wide range of differing perspectives, but covers a significant span of time, is subject to bias, and is clouded by issues such as misperception and poor recollection, and should therefore be considered in this context. That said, the broad range of material supports the analysis presented about the enduring nature of the air power characteristics.

## **Linking Strategy to Expeditionary**

In order to link the concept of strategy with expeditionary, it is important to clarify the definition of strategy and highlight its contested nature. There is little academic or doctrinal consensus to the meaning of the word, and it is over-used in every day parlance: the modern era has strategies for nearly every walk of life, and its meaning is often conflated with concepts such as political, magnitude or importance – for example RAF ‘strategic’ air lift aircraft are differentiated from tactical air lift largely as a result of their range.<sup>2</sup> Likewise, apparently strategic documents can contain little strategy; criticisms have even been levied at the National Security Strategy (NSS) and the Strategic Defence and Security Review (SDSR) for failing to deliver either a clear definition of strategy or any strategic level vision other than the financial agenda.<sup>3</sup> Churchill claimed that strategy was about seeing “the outlines of the future and being prepared to deal with it,”<sup>4</sup> although this definition belongs to the era of Grand Strategy as distinct from (and a guiding principle of) Military Strategy. Modern doctrine highlights strategy as the process of enacting National Strategy,

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<sup>2</sup> Lawrence Freedman, *Strategy: A History* (Oxford: Oxford University Press, 2013), x.

<sup>3</sup> United Kingdom, House of Commons Defence Committee, “Towards the Next Defence and Security Review: Part One,” January 7 (2014). <http://www.publications.parliament.uk/pa/cm201314/cmselect/cmdfence/197/19703.htm> (accessed February 5, 2014.)

<sup>4</sup> Churchill quoted in Peter Paret, *Makers of Modern Strategy: from Machiavelli to the nuclear age* (Oxford: Clarendon Press, 1998), 503.

guiding operational and tactical activity, and balancing the ends, ways and means,<sup>5</sup> however in the process it concedes “the distinction between the strategic and operational levels is rarely tidy and often blurred.”<sup>6</sup> Indeed, modern strategy has political connotations at its heart, differing from the early part of the twentieth century when it was a more military-led endeavour; thus even the meaning of the word has evolved over time. Equally, an understanding of the concept does not automatically follow with an understanding of the multi-faceted and inter-related landscape that it attempts to shape. Therefore the whole concept of strategy is not without complexity. However, an understanding of the political ambition and resulting strategy is important context in which to analyse the utility and defining characteristics of expeditionary air operations, and in the three case studies this will be highlighted. Of note, in all cases, the context was significantly different: the inter-war years was driven by colonial responsibility and an economic agenda, Burma primarily by colonial interest and national survival, and Afghanistan as much by the complexities and responsibilities of modern alliance as by nuanced and changing national objectives.

Likewise, an analysis of the concept of *expeditionary* is needed, which is a much-used term and a key component of the Government’s military ambition as outlined in the SDSR.<sup>7</sup> Definitions are also contested: British Defence Doctrine provides no explicit explanation, the NATO definition is “the projection of military power over extended lines of communication into a distant operational area to accomplish a specific objective,”<sup>8</sup> whereas the US Marine Corps (USMC) places a greater emphasis on the requirement for hard power and “forcible entry.”<sup>9</sup> These doctrines have common ground in the stated ambition to meet foreign policy ends, but there is an interesting difference in the levels of ambition with the USMC defining expeditionary in a more robust manner. Thus the concept of expeditionary can be seen to echo the mindset and structural capability of an organisation, in the context of the political ambition. An understanding of the political landscape is vital in order to conduct an accurate analysis of the expeditionary contribution to the operations. In Afghanistan for example, there are significant differences in the objectives of the US and Germany – although both countries have troops and aircraft deployed on operations, it could be suggested that Germany’s contribution minimises military risk and political exposure and is driven more by the burden of alliance than national interest (although the two are of course entwined). Therefore the link between expeditionary operations, politics and strategy is both fundamental and nuanced, and the subsequent case studies will highlight Britain’s political ambition as being essential to a contextual understanding of the expeditionary air power that is deployed: what did Britain *want* from its air power, and *why*? This concept raises questions about the nature of modern

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<sup>5</sup> United Kingdom, MOD, *Joint Doctrine Publication 0-01: British Defence Doctrine* (MOD: Defence Concepts and Doctrine Centre, 2011), 1-5.

<sup>6</sup> United Kingdom. Developments, Concepts and Doctrine Centre. *ADP Operations* (Shrivenham: DCDC, 2010), 3-19.

<sup>7</sup> United Kingdom, HM Government, *A Strong Britain in an Age of Uncertainty: The Strategic Defence and Security Review* (London: TCO, 2010), 18.

<sup>8</sup> AAP-6. *NATO Glossary of Terms and Definitions* (2013), 2-E-6.

<sup>9</sup> Thierry Gongora, “Expeditionary Operations: Definition and Requirements,” *Military Technology* 28, no. 6 (2004): 106.

expeditionary operations in a globalised and connected world. Although centuries old, the idea of 'exporting security' overseas, as enshrined in the writings of theorists such as Liddell-Hart,<sup>10</sup> faces practical and conceptual challenges in the contemporary security environment where globalised threats such as international security are not confined to international state borders.<sup>11</sup> However, Britain retains an ambition to conduct overseas operations for a variety of strategic reasons including alliance cohesion, security, and national interest, and Fry notes that this enables a military involvement on the grounds of our choosing, where even "military defeat [does] not strategically compromise the homeland."<sup>12</sup>

While this essay will focus on the air power contribution to expeditionary operations, it is important to note that the expeditionary concept covers a vast spectrum of joint activity; from counter-air, interdiction and COIN to stabilisation and reconstruction operations, and it is the latter, land-based activity that tends to dominate the current media environment. Yet, despite this stymied view, expeditionary operations remain at the very heart of the RAF.<sup>13</sup> With the exception of the Battle of Britain, the V-Force Deterrent of the 1950s and Quick Reaction Alert today, every other noteworthy RAF operation has occurred outside of the borders of the United Kingdom. This apparent lack of expeditionary awareness is prevalent in the public psyche, caused partly by an inadequate "understanding of the utility of military force in the contemporary strategic environment,"<sup>14</sup> and partly due to the very nature of expeditionary operations which occur overseas and are often 'out of sight, out of mind.' As a consequence the media plays a disproportionately significant role in the understanding of the expeditionary environment, and distorted "daily news reports describe soldiers and marines engaged in ground combat but barely mention Airmen."<sup>15</sup> This uncertainty over the nature of expeditionary operations is compounded by the propensity to conflate the concepts of expeditionary and austerity.<sup>16</sup> The meaning of the word expeditionary is often incorrectly portrayed as analogous with hardship and discomfort, more associated with the "heat, insects, poor food, monsoon rains, humidity, prickly heat, leaking tents, mud, jungle sores and snake bites"<sup>17</sup> experienced by the airmen and soldiers fighting at Imphal, rather than the comparative comfort of twenty-first century Expeditionary Air Groups. However, in both cases the Forces were deployed overseas to conduct *military operations for a political end* and the level of comfort is irrelevant to the definition, and it is therefore a category mistake to define expeditionary on the grounds of austerity.

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<sup>10</sup> Doctrine of 'Limited Liability'.

<sup>11</sup> United Kingdom. HM Government, *A Strong Britain in an Age of Uncertainty: The National Security Strategy* (London: TCO, 2010), 3.

<sup>12</sup> Robert Fry, "Expeditionary Operations in the Modern Era," *RUSI Journal* 150, no. 6 (2005): 61.

<sup>13</sup> The Chief of the Air Staff was challenged as to whether the RAF is an expeditionary Air Force, to which he replied: "I am in charge of an RAF that does not know its history." Air Chief Marshal Sir Glenn Torpy, CAS Air Power Conference, RAF Cranwell, 2006.

<sup>14</sup> House of Commons Defence Committee, "Towards the Next Defence and Security Review: Part One," January 7 (2014).

<sup>15</sup> Paul Berg, "Expeditionary Operations," *Air and Space Power Journal* 22, no. 2 (2008): 29.

<sup>16</sup> Thomas Harding, "RAF Pilot accused of using Iraq as a Health Farm," *The Daily Telegraph*, March 3, (2007).

<sup>17</sup> <http://www.telegraph.co.uk/news/uknews/1544443/RAF-pilot-accused-of-using-iraq-as-health-farm.html> (accessed January 10, 2014.)

<sup>17</sup> Norman Franks, *The Air Battle of Imphal* (London: William Kimber, 1985), 125.

## Expeditionary Enablers

The vehicle of three separate case studies will be utilized in order to draw out the key expeditionary air power themes of an enduring nature. Therefore, and as a result of the need to bound what is an extremely broad subject, the focus will be on the *defining contributions* of air power to the operation, and not on the critical enabling activity that supports the frontline activity. That said, it is important to acknowledge that expeditionary air power is completely reliant on a number of significant areas that support and enable the operations. First, expeditionary operations by their very nature take place overseas, and require not only the means (in sufficient mass and capability) to execute a forced entry into the Theatre, but also the mobility to do so. While Strategic Air Transport could be the critical operational component itself, such as during the first non-combatant evacuation operation in Kabul in 1929, it is also required in sufficient quantities to deploy and recover personnel from Theatre, as it currently does to the same territory almost a century later. Likewise Air-to-Air refuelling is a critical force multiplier, and due to its interoperability can offer political choice in its own right; such as with the light-touch military support to US activity during Operation ENDURING FREEDOM in 2001, which occurred without the controversy of a kinetic deployment of strike assets. Second, deployed assets require considerable support on the ground, and Force Protection is an essential tenet of expeditionary operations, particularly as “the modern airbase is becoming more than just an airpower protection platform,”<sup>18</sup> with base personnel subject to both traditional and asymmetric threats. Base operations also require a host of other support agencies including Headquarters, Intelligence, Air Traffic Control, and Logistics. Third, expeditionary air forces require a degree of balance, possessing a coherent force structure that is able to self-sustain, although air forces can charter or pool share assets in order to make up for shortfalls.<sup>19</sup> It is also important to note that as operations evolve, or attitudes to risk change, previously adequate Force structures can become imbalanced, as evidenced by the decision to purchase more Chinook aircraft in 2011 due to the changing nature of the mission and the public’s increased war-weariness with the increasing numbers of British casualties.<sup>20</sup> Last, expeditionary operations in the contemporary environment hinge increasingly on international relationships and alliances, relying on interoperability and cooperation,<sup>21</sup> underpinned by an approach and mindset that is as important as equipment capability.<sup>22</sup> Thus expeditionary operations require a host of scale and complexity in order simply to deploy and sustain, but critical as the enabling forces are, the essay will focus on the delivery of the strategy, and analyse what the deployed air power was

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<sup>18</sup> Robert Holmes, Bradley Spacy, John Busch and Gregory Reese, “The Air Force’s New Ground War: Ensuring Projection of Air and Space Power through Expeditionary Security Operations,” *Air and Space Power Journal* 20, no. 3 (2006): 51.

<sup>19</sup> Stefan Wilmers and Christian John, “European Air Transport Command,” *European Security and Defence* no. 1 (2011): 35 – 39. [http://www.europeansecurityanddefence.info/Ausgaben/2011/01\\_2011/07\\_Wilmers\\_John/Wilmers\\_John.pdf](http://www.europeansecurityanddefence.info/Ausgaben/2011/01_2011/07_Wilmers_John/Wilmers_John.pdf) (accessed January 15, 2014).

<sup>20</sup> BBC, “MoD to buy 14 new Chinook helicopters in £1Bn deal,” *BBC News*, August 22 (2011). <http://www.bbc.co.uk/news/uk-14616028> (accessed February 10, 2014).

<sup>21</sup> Bruce Lemkin, “International Relationships. Critical Enablers for Expeditionary Air and Space Operations,” *DISAM Journal of International Security Assistance Management* 28 (2005): 1.

<sup>22</sup> Gen Di Paola Giampaolo, “NATO Expeditionary Operations: The Way Forward,” *Military Technology* 33, no. 4 (2009): 41.

required to achieve in order to meet the political objectives. Turning to an examination of three case studies, in the first the initial British venture of expeditionary air power occurred over the very territory that dominates the contemporary landscape, although the strategy of Air Policing a century ago was a very different enterprise to the operations conducted in that Theatre today.

## **The Inter-War Years**

The inter-war years make a defining case study, as not only was this was the first deployment of the RAF following the First World War, but there are a number of themes that fall from this early foray of expeditionary Air Power which are of enduring relevance during later campaigns. This period has also enjoyed a resurgence of interest following the recent involvement in Iraq and Afghanistan, and the debate over small wars and air policing has become more central as the success of air power in contemporary COIN operations has undergone considerable recent analysis. In order to link strategy to expeditionary, the context of the inter-war years is particularly relevant, as the geopolitical landscape following the end of the First World War had created a specific set of circumstances to which Air Power offered an alluring solution.

The inter-war analysis will be split into four sections. First, the geopolitical landscape will be linked to the strategy to use air power as a cost effective means of policing the Empire. Second, the nascent role of air power in the context of the Empire will be discussed, before highlighting the areas of political success and failure – assessing how well air power met with the strategic intent. Third, the key characteristics will then be analysed, with attack, integration (and control of the air) being central to success. Finally the last section will relate the notion of air control to Government strategy as being a success, despite the application of the punitive techniques being very much ‘of the time’ and limited in wider utility, but with some emerging characteristics that endured into later expeditionary operations.

The geopolitical landscape following the First World War was somewhat paradoxical in nature for Britain. Victorious, with responsibilities to the Empire that matched Britain’s view of herself as a great power, the grand foreign policy ambitions were stifled by the considerable burden of war debt and the economic conditions were stark: the RAF budget had fallen from £52 million in 1920 to just £9 million by 1923 in line with the Treasury’s ten year rule.<sup>23</sup> As a consequence the Government had to “economise by any means possible...and police the new imperial obligations on the cheap.”<sup>24</sup> While the ends were clear, the means were problematic as the use of Land Forces was deemed to be an expensive option.<sup>25</sup> Trenchard’s proposition that air power should be used to

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<sup>23</sup> David Hall, *Strategy for Victory: The Development of British Tactical Air Power, 1919-1943* (Westport: Praeger, 2008), 17.

<sup>24</sup> James Corum, “The Myth of Air Control: Reassessing the History,” *Aerospace Power Journal* (2000): 61.

<sup>25</sup> David Divine, *The Broken Wing: A Study in the British Exercise of Air Power* (London: Hutchinson, 1966), 151.

coerce the disparate tribes across the Middle East offered an alluring cost-effective solution to the strategic problem of Empire policing. Given the scale and duration of the operations, it is perhaps surprising that little was recorded about this period outside of the RAF, and subsequent analysis does not escape criticisms of scope and misperception.<sup>26</sup> Yet the expeditionary air operations delivered some success, and on a budget. The 'Mad Mullah' in Somaliland had "irritated the colony for many years"<sup>27</sup> and was defeated in 1920 with the employment of just a single squadron during a three-week operation that cost £70,000.<sup>28</sup> Pink's War against the tribes of Mahsud in South Waziristan took fifty-four days and heralded equal success; Bowyer noted that air power was "more economical in men and money...than other forms of armed force."<sup>29</sup> Likewise in Iraq, as the Land Forces were reduced the spending decreased from £7 million in 1922 to £2 million in 1929.<sup>30</sup> Thus the economic benefits of expeditionary operations were politically aligned, and the operational pedigree gained would also add credibility to a separate economic line of development: the buoyant arms trade that the UK had embraced. In the 1930s the UK was the world's largest exporter of aircraft;<sup>31</sup> and air power success overseas dovetailed well with this business.

Second, the entire concept of the utility of air power was emerging and its potential was subject to much debate.<sup>32</sup> While the use of nascent expeditionary air power was an alluring proposition for the politicians, inter-service rivalry was at a nadir and the very survival of the RAF was at stake. Due to the public horror and focus on the nature of attritional warfare experienced by the Land Forces on the Western Front, Divine claims that the "failure of the independent air force was obscured under a blanket of ignorance and fallacious estimate."<sup>33</sup> Although Divine himself does not escape the test of inter service objectivity unscathed,<sup>34</sup> his criticism is harsh given the struggle that had to be fought to integrate new technology into the mindset of "Generals...who had reached middle age before aircraft were ever used in war."<sup>35</sup> Yet he concedes that air power espoused a "romantic image of chivalry...and the potential had been established in the public mind."<sup>36</sup> The promise that air power offered a novel military strategy to a difficult political solution was seized on by emerging air power advocates, and the early stages of the inter-war years were a defining period for the budding role. Despite the immaturity of the air component, a key utility of air power would quickly emerge and endure: that it offered political choice. Military aircraft represented novel technology, and the potential of such equipment offered a psychologically compelling opportunity

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<sup>26</sup> United Kingdom. Air Historical Branch. *The RAF, Small Wars and Insurgencies in the Middle East, 1919-1939* (MOD: Air Media Centre, 2011), 2.

<sup>27</sup> Corum, "The Myth of Air Control", 63.

<sup>28</sup> Air Historical Branch, *The RAF, Small Wars and Insurgencies in the Middle East*, 4. (This equates to approximately £2.7M allowing for inflation since 1920.)

<sup>29</sup> Chaz Bowyer, *RAF Operations 1918-1938* (London: William Kimber, 1988), 76.

<sup>30</sup> Air Historical Branch, *The RAF, Small Wars and Insurgencies in the Middle East*, 31.

<sup>31</sup> David Edgerton, *Warfare State: Britain 1920-1970* (Cambridge: Cambridge University Press, 2006), 47.

<sup>32</sup> Freedman, *Strategy*, 126.

<sup>33</sup> Divine, *The Broken Wing*, 148.

<sup>34</sup> Exuding overt support to the Royal Navy, he wrote in 1966, a time of frustration for the RN due to the cancellation of the aircraft carriers – again, inter-service rivalry was paramount.

<sup>35</sup> ACM Sir John Slessor, *The Central Blue: Recollections and Reflections* (London: Cassell, 1956), 74.

<sup>36</sup> Divine, *The Broken Wing*, 148.

as a new way of solving complex political problems. *New* technology offered the promise of a *new* approach. Accordingly it is worth highlighting some of the context, theory and analysis associated with the birth of British expeditionary air power.

While only hindsight clarifies the optimal employment of new technology, the inter-war years period marked the rise of several notable air power theorists. Churchill seized the importance of control of the air and attack in 1914, claiming the “primary duty of British aircraft is to fight enemy aircraft, and thus afford protection against aerial attack.”<sup>37</sup> The threat of attack against the UK mainland was perceived as a particularly dangerous concept, evidenced by the empirical experience of panic that limited German strikes on both the East Coast and London had triggered in the mindset of the British public in 1915 and 1917.<sup>38</sup> Yet it was precisely the allure of attack operations that drove the deployment of British Expeditionary air power to the Middle East, and it is not without irony therefore that the RAF survived after the First World War due to the requirement for homeland defence and control of the air, and then immediately deployed overseas on the basis of its antithesis, overseas attack operations. This underlined both the unpredictable nature of the future operating environment and the versatility of air power. Likewise it signaled the potential of long-range air attack as a coercive instrument; espoused by theorists such as Mitchell, Douhet and Trenchard.<sup>39</sup> While the utility of attack was novel and compelling,<sup>40</sup> the writings of the early air power theorists can be criticised on the grounds of optimism,<sup>41</sup> although it is important to note that this was groundbreaking theory in the face of continual single-service rivalry. That said, despite the prevalence of numerous critics of the strategy and employment of air power, including CIGS Sir George Milne, the early experience of expeditionary operations in the Empire proved the early air power theorists correct.

Central to the decision to employ expeditionary air power was the notion of ‘political choice’ that light touch and discriminatory air power offered to the politicians when compared to the colonial experiences of Land Force employment, that involved thousands of troops at considerable cost. Yet Slessor noted the problems of incoherent strategy, hinting at chaos and fragmented agendas in London: “plans [was] a misnomer...a cats cradle of interdepartmental responsibility,”<sup>42</sup> with just two military officers in the department. He cited Trenchard’s intent to move 6 Sqn to Egypt, to which the Foreign Office reacted badly, until Trenchard said that he had already done it, and “not a dog in Egypt had barked.”<sup>43</sup> Thus while the Government supported the role of air power overseas, and the policy ends were clear, it is important not to conflate this with the notion of a clearly

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<sup>37</sup> *Ibid.*, 56.

<sup>38</sup> Freedman, *Strategy*, 124.

<sup>39</sup> Divine, *The Broken Wing*, 166.

<sup>40</sup> Slessor, *The Central Blue*, 47.

<sup>41</sup> John Baylis, James Wirtz, Colin Gray and Eliot Cohen. *Strategy in the Contemporary World* (Oxford: Oxford University Press, 2002), 133.

<sup>42</sup> Slessor, *The Central Blue*, 48.

<sup>43</sup> *Ibid.*, 50.

defined strategy, which was piecemeal and incremental in its application; success in Somaliland led to Trenchard successfully arguing for further RAF operations in Iraq, Aden, Palestine, Trans-Jordan, Egypt and Sudan.<sup>44</sup> Likewise the deployment was not without some political nervousness about the potential of the new capability; Vallance quotes MacMillan's observation that the way people thought about air power then was the way that we think of nuclear war today.<sup>45</sup> Thus the politicians took risk in the decision to employ air power. Bowyer notes "it was the first occasion in India that the RAF has been used independently of the Army for dealing with a situation which has gone beyond the resources of the political leaders;"<sup>46</sup> and this was a key point: air power offered a solution where there was no viable diplomatic, economic or military alternative.

The Government strategy to employ the RAF for the role of Imperial Policing centred around the ability to coerce the unruly tribes, and air control was the defining task. While the broader policing activity involved a variety of different air power tasks, including reconnaissance, evacuation, and humanitarian relief, the strategic reason for the presence in the Empire was to exert control. The key expeditionary task that the RAF undertook to enact this policy was through the controversial concept of air control, primarily involving the coercion of unruly tribes through escalatory bombing attacks. Harris (later Marshal of the RAF) noted the nuanced and risky application of force in COIN operations, claiming, "if you fail by being too soft you will be sacked...if you succeed by being tough enough, you will likely be told you were too tough";<sup>47</sup> a far-sighted comment that continues to resonate today. Central to the concept of air control was the ability to influence the population through attack operations. Coercion of tribal villages had roots in the colonial land operations of the late 19<sup>th</sup> and early 20<sup>th</sup> Century, where Army garrisons had enacted vicious punitive attacks on villages in order to enforce British power. The policy of air control aimed to do this using aerial bombardment in place of traditional ground expeditions, and there is a weight of evidence to suggest that such aspirations were achieved, for example "within 45 minutes a full sized village...can be practically wiped out."<sup>48</sup> Attack operations were successfully employed from the start of the expeditionary campaigns, notably with the first deployment to Somaliland in 1920. The 'Mad Mullah' had conducted a bitter campaign against the Land Forces for years, drawing much needed resources away from the Western Front in the First World War. Yet the very first air control sortie almost killed him, as "a bomb detonated in the very room occupied by the Mullah himself, killing an aide."<sup>49</sup> Within three weeks the Mullah had been defeated. There was equal success with attack operations in Iraq in 1922, despite the very different political context of a fierce battle against the Turks. Similarly in southern Iraq in 1931, on the surrender of Sheikh Mohammed, he "tapped

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<sup>44</sup> Hall, *Strategy for Victory*, 20.

<sup>45</sup> Andrew Vallance, *The Air Weapon: Doctrines of air power strategy and operational art*, (London: MacMillan Press, 1996), 10.

<sup>46</sup> Bowyer, *RAF Operations 1918-1938*, 176.

<sup>47</sup> *Ibid.*, 140.

<sup>48</sup> Corum, "The Myth of Air Control", 66.

<sup>49</sup> Bowyer, *RAF Operations 1918-1938*, 60.

the wings on the officers tunic and said solemnly, you are the people who broke my spirit.”<sup>50</sup> Thus attack had become a central tenet of the RAF’s expeditionary capability and success, and with it two nuanced considerations that would remain relevant to bombing operations in the future: precision and novelty.

The air control policy had not escaped criticism on the grounds of brutality, and despite its effectiveness the RAF was keen to stress the “humanitarian aspects”<sup>51</sup> of their approach following the election of the first Labour Government in 1924, which had expressed concerns over the nature of the punitive attacks. Thus began the first consideration of collateral damage, and with it the requirement for precision: the RAF “was careful to discriminate between friendly and hostile elements.”<sup>52</sup> The requirement for accuracy was understood by the aircrew, however Divine criticises aircrew claims as being largely over-optimistic.<sup>53</sup> While there was undoubtedly some accurate bombing, it is important to remember that these were unguided bombs being released from primitive aircraft with minimal weapon aiming, and although the “accuracy was uncanny to the tribesman,”<sup>54</sup> Corum notes that on one occasion 182 bombs were released with 102 completely missing the village.<sup>55</sup> Likewise there would also have been inaccurate assessments of precision from the pilots, unable to identify the effects of the attack, or who had unknowingly misidentified the target in the first instance. Second, the concept of novelty was important. Just as the public feeling during the Second World War Blitz turned from emotions of fear to defiance as the campaign endured, so coercion through bombing had the greatest psychological effect on the tribesmen due to its “dramatic novelty.”<sup>56</sup> This was evident in Aden, in 1938, when it “induced near terror among some rebels unaware that aircraft could operate by night.”<sup>57</sup> Accuracy of attack and novelty were therefore key drivers for successful air control during the inter-war years, and both of these concepts highlighted the unremitting drive for technological advancement that has become an enduring feature of air power. Operations throughout this period were varied, and although the defining contribution can be seen to be air control bombing, there were many instances of air presence, show of force, reconnaissance and airdrop,<sup>58</sup> and throughout, these missions required integration and coordination with the Land Forces.

The historical analysis of the British operations during the inter-war years has generally highlighted the successful contribution of air power, and downplayed the role of the Land Forces. Yet most operations had a joint, and often combined element to the activity. Air was credited with great

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<sup>50</sup> Ibid., 120.

<sup>51</sup> Corum, “The Myth of Air Control”, 66.

<sup>52</sup> Air Historical Branch, *The RAF, Small Wars and Insurgencies in the Middle East*, 15.

<sup>53</sup> Divine, *The Broken Wing*, 161.

<sup>54</sup> Air Historical Branch, *The RAF, Small Wars and Insurgencies in the Middle East*, 32.

<sup>55</sup> Corum, “The Myth of Air Control”, 71.

<sup>56</sup> Divine, *The Broken Wing*, 161.

<sup>57</sup> Bowyer, *RAF Operations 1918-1938*, 60.

<sup>58</sup> Air Historical Branch, *The RAF, Small Wars and Insurgencies in the Middle East*, 26.

success in Somaliland, but it was operating with the King's African Rifles, the Somaliland Camel Corps and the Indian Army.<sup>59</sup> This joint approach was typical throughout the period, and the interpersonal relationships that were built up between the pilots and soldiers were key. The Deputy CAS noted in 1933 that it was "essential that we should be fully informed of the nature and location of the decisive points...[to] direct the operations economically and accurately."<sup>60</sup> Influence was best affected with a good knowledge of the human terrain, politics and cultural understanding. Likewise in Koicol, Iraq, in 1922, the aircrew dropped notes to the Land Forces indicating the enemy positions, and an advisory service was set up between the RAF the Iraqi Air Force and Army. Thus the Air and Land Forces operated most effectively when they were integrated, and this was fully understood by Slessor during his time as a Squadron Commander in Waziristan. He later produced a remarkably far-sighted book articulating the need to integrate air and land during his time as an instructor at Bracknell in the 1930s.<sup>61</sup> However the doctrine was never formally established and the debates about the role and C2 of air power remained unresolved until well into the Second World War, with Air Land Integration remaining dismal until 1943.<sup>62</sup> Thus attack operations and the requirement to integrate effectively as a joint force can be seen as the key characteristics of the inter-war years. Control of the air, although fully understood by the RAF senior leadership, had not manifested itself during the operations in the Middle East, and both the Air and Land Forces had enjoyed the freedom to operate without an air threat: a significant factor, and one that resonates in the contemporary environment.

In order to provide a concluding analysis of the success of expeditionary air power in delivering the inter-war years strategy, the activity could be judged against three key areas: results, costs and risk. First, it is worthy of note that the long-term implications of the RAF empire policing policy were never fully established due to the effects of the Second World War, which significantly changed the geopolitical landscape across the Middle East and Northern Frontier. However, in 1918 the Government was faced with the prospect of maintaining a degree of control across its dependencies and it had employed air power as a low cost solution. The evidence suggests that this was a successful period – the Colonial Office referred to the Iraq operations as a "conspicuous success,"<sup>63</sup> and this view was consistent with the analysis of successive Governments,<sup>64</sup> although one must be mindful that this was a Government reflecting on its own policies. That said, the narratives about the application of air power as a single service instrument remain divided. Likewise, the notion that the "the only thing the Arab understands is the heavy hand"<sup>65</sup> does not escape criticisms of brutality and questions of necessity. Slessor noted that the "conditions in

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<sup>59</sup> Corum, "The Myth of Air Control", 63.

<sup>60</sup> Air Historical Branch, *The RAF, Small Wars and Insurgencies in the Middle East*, 32.

<sup>61</sup> Slessor, J C, *Air Power and Armies* (Alabama: University of Alabama, 2009).

<sup>62</sup> Hall, *Strategy for Victory*, 9.

<sup>63</sup> *Ibid.*, 21.

<sup>64</sup> Air Historical Branch, *The RAF, Small Wars and Insurgencies in the Middle East*, 31.

<sup>65</sup> Corum, "The Myth of Air Control", 72.

which this method could be applied...have now ceased to exist"<sup>66</sup>, and one senses a relief in the tone of his narrative - air control made an unsavoury solution at the time, and in very specific circumstances. In the contemporary environment of landmine treaties, globalisation, internet communications, the proliferation of mobile telephones and increasing concern over collateral damage and humanity, the international community would see the air control strategy in an indifferent light. It is also worth noting that while the inter-war years policy can be glibly conflated as being 'a single campaign', it involved many different operations, dislocated squadrons and chains of command, a plethora of countries and international partners, diverse political and ethnic contexts and cultures, over a significant number of years. In this context, although generalised conclusions should be tempered and contextualised, the political acceptance that the strategy delivered the expected results is somewhat remarkable. Likewise, the deployments were cheap, involving few personnel and aircraft, and enabled costly Land Forces to be returned to the UK. In terms of risk, the strategy was incremental in nature - as the success of air control was realised in Somaliland, so the Government increased RAF control further across the Middle East. Overall the expeditionary success of the RAF during the inter-war years can be characterised by the effective tactical execution of air control, and underpinning this doctrine were two key areas – credible attack and successful integration in the joint and combined environment. While not overtly noted in the literature, the freedom to manoeuvre in the skies was a key requirement for the operations, and although the environment was not contested, the notion of control of the air was highly relevant. Operations over South East Asia just a few years later would prove the requirement for this enduring characteristic.

## **Burma Campaign**

The Burma campaign has been noted as one of the seminal moments of joint expeditionary activity during the Second World War, and therefore makes a compelling case study in the role of air power. Where the inter-war years were effectively a campaign using air power against disaffected tribes, in essence an early form of COIN, the Burma campaign was conducted in the very different context of state on state warfare. The hallmark of the early stage of the campaign, from 1941 to 1942, was a lack of coherent joint activity, and it is worth noting the machinations of the preceding years in order to understand the operational context. Aside from the Imperial Policing role, British Defence Policy was dominated by economic restriction in the 1930s, and with the removal of the ten-year rule in 1932, the most significant threat faced by the UK was air attack from mainland Europe. Accordingly home defence was prioritised, and there was much debate and tension about the structure of the RAF, in particular concerns over 'quality' or 'quantity'.<sup>67</sup> With the focus on the creation of Fighter and Bomber Commands, there is a common misperception that Air Land

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<sup>66</sup> Slessor, *The Central Blue*, 51.

<sup>67</sup> Hall, *Strategy for Victory*, 27.

Integration was forgotten – this is not so, evidenced by examples such as the RAF War Manual doctrine and in the work of officers such as Slessor at the Army Staff College.<sup>68</sup> However, there was a question over priorities, and with a limited number of aircraft committed to control of the air and interdiction, there was far less consideration to the “decisive battle” of the land campaign.<sup>69</sup> Hall notes that there were gross oversimplifications with the criticism of Air Land Integration (ALI) doctrine, for example, and highlights that the Army’s lessons from the First World War were only published in 1934. It is against this backdrop that the opening battles of the Second World War commenced, and with poor records against the German Forces and with ALI at a distinct low point, inter service rivalry took hold. The Army cited a bad experience during the Battle of France as a case in point “blaming others for its battlefield defeats.”<sup>70</sup> In response the Air Staff promoted ALI type exercises, and soon a signal system that linked airfields and Headquarters had been devised – a concept that was evolved by Tedder and Coningham in North Africa, and it was here that the origins of Air Support were born. The nascent doctrine was formalised with the creation of the Tactical Air Forces<sup>71</sup> in 1943, and it was precisely this organisation that flew in support of General Slim’s Fourteenth Army against the Japanese Forces in South East Asia. Given the broad timeframe of the campaign, the analysis will focus on the latter section of the Burma campaign; the resurgence and success of Slim’s Army, supported by Pierson’s<sup>72</sup> expeditionary air force.

The analysis of the Burma campaign will be structured in five sections. First, in order to link the relevance of the expeditionary air operations to the strategy, the complex political environment and nuanced strategic aims will be analysed, as Burma was far from being a clear objective. The next three sections will analyse in turn the key air power contributions to the expeditionary operations: tactical air support, air superiority and air transport. Last, underpinning the successful contribution of these central roles to the military strategy was the integration of the Air and Land Forces, which peaked during the Burma campaign. The case study will conclude that although the ultimate political strategy was flawed, as Burma achieved independence almost immediately the war was over, the expeditionary air power contribution was central to the military strategy for victory over the Japanese Forces. Yet this campaign was about far more than Allied Forces fighting the Axis Powers.

First, the strategy for Burma was complex. Operations in South East Asia were joint and combined,<sup>73</sup> and took place over a number of years. Given the ebb, flow and changing requirements of the War in Europe, which took priority, there was no single clear strategy for

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<sup>68</sup> Slessor, *Air Power and Armies*.

<sup>69</sup> Hall, *Strategy for Victory*, 28.

<sup>70</sup> *Ibid.*, 155.

<sup>71</sup> 2<sup>nd</sup> Tactical Air Force was based in Europe, 3<sup>rd</sup> Tactical Air Force was based in South East Asia Command for integration with the 14<sup>th</sup> Army.

<sup>72</sup> Allied Air Commander-in-Chief South East Asia.

<sup>73</sup> With US and Chinese Forces.

Burma, but a policy that reflected a mix of political ambition for Empire borne of prestige and resources, nuanced coalition politics and military endeavour against a potent Japanese threat. Thus, to assess that the battle for Burma was a simple case of winning a campaign against the Axis powers, would be to underestimate the complexities of the geopolitical landscape. Despite this, Brooke-Popham reflected on the feeling of neglect<sup>74</sup> that he experienced during 1941 as a result of inadequate resources - with France defeated and the UK under a direct threat of invasion, the initial operations in Asia were not afforded priority. This has led to many references to the period as the 'forgotten war'.<sup>75</sup> However the UK had a significant economic interest in the area, as both India and Burma were colonies, and the British intent was to reclaim the lost territory in order to continue to exploit lucrative trade arrangements. While in hindsight the wisdom of this strategy can be questioned, given the ambivalence of the British public to Empire,<sup>76</sup> combined with the Indian Act of 1935 that had begun moves to independence. Yet the resultant strategy showed signs of incoherence: post war trade would depend on robust infrastructure and development, but the military strategy employed was a destructive battle against the Japanese Forces<sup>77</sup> which resulted in the towns of Imphal and Kohima resembling "the battlefields of the Somme."<sup>78</sup> The long-term strategic aim with Burma was therefore somewhat unclear, and the muddled ends were reflected in the poor resources initially allocated to Slim's "Cinderella Army."<sup>79</sup> The final area of note with the Burma strategy was the discordant coalition ambitions. Whereas Britain was interested in Burma as a colonial 'end in itself', the US saw the country as a staging post to their real strategic interest: China.<sup>80</sup> Roosevelt had publically stated that he wanted to 're-open the Burma road' and to meet this ambition the US needed the assistance of Britain - somewhat of an uncomfortable symbiosis borne of coalition, but with divergent strategic priorities.<sup>81</sup> Therefore the strategy for Burma was a conflation of different interests: post-war Empire for the UK, access to China for the US, the need to operate and integrate as an effective coalition, and of course the need to beat the Japanese. For the British, the centrality of the military battle was the dominating factor, and it was in this context that expeditionary air power played a crucial role.

The effectiveness of expeditionary air power during the Burma campaign can be distilled into three key areas: tactical air support, air superiority, and air transport. These defining characteristics will be analysed in turn. The emergence of tactical air support proficiency during the Burma campaign marked a turning point in the evolution of British air-land cooperation. The Army and Air Force<sup>82</sup>

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<sup>74</sup> Henry Probert, *The Forgotten Air Force: The Royal Air Force in the War Against Japan 1941-1945* (London: Brassey's, 1995), 15.

<sup>75</sup> Many books on the period possess a 'forgotten' title, such as Russell, W. *Forgotten Skies: The Story of the Air Forces in India and Burma* (London: Hutchinson, 1945).

<sup>76</sup> Grant, *The Turning Point*, 227

<sup>77</sup> Martin Gilbert. *Road to Victory: Winston S Churchill 1941-1945* (London: Heineman, 1986), 758.

<sup>78</sup> David Rooney. *Burma Victory: Imphal, Kohima and the Chindit issue, March 1944 to May 1945* (London: Arms and Armour Press, 1992), 11.

<sup>79</sup> Field Marshal Viscount Slim. "Some Aspects of the Burma Campaign". Lecture given to the Burma Society June 19<sup>th</sup> 1946, 338.

<sup>80</sup> Gilbert, *Road to Victory*, 695.

<sup>81</sup> Gary Bjorge, *Merrill's Marauders: Combined Operations in Northern Burma in 1944* (Washington: US Army Staff College, 1996), 4.

<sup>82</sup> Including RAF and Royal Indian Air Force.

showed a level of joint commitment and understanding that paid dividends in operations against the Japanese and necessity drove the integration: the soldiers and airmen were co-located, united by their isolation, and were confronting a ruthless enemy. As a consequence of shared necessity the concept of tactical air support matured quickly and the Allies enjoyed considerable success. Wg Cdr Russell noted in his memoirs that the RAF was 'leading the way', and by contrast the Japanese operations suffered as a result of the lack of priority that was given to the integration of their air and land forces.<sup>83</sup> However it is important to note that the Allied approach was driven more by necessity and survival rather than by slavish adherence to doctrine; showing the relevance of both circumstance and agency to operational performance.

Just as in the inter-war years, the success of Joint operations hinged, in the main, on a credible attack capability from the RAF (and RIAF) aircraft. Lt Col Crofton noted that his most vivid recollection of the war was the "bravery of the pilots of the Hurricanes dive-bombing and strafing"<sup>84</sup> and this capability was put to use dynamically and effectively against a variety of targets. These included "gun positions, troop concentrations and river craft"<sup>85</sup> during the battle of Sittang Bend, as well as against roads, camps and even the Burma-Siam railway, which was bombed with 2,700 tonnes of ordnance. While this had a notable effect on the infrastructure, just as with the tribesmen of Mesopotamia in the 1920s, the psychological effect of the attacks was stark and had as great an impact on freedom of manoeuvre as with the mentality of the fighting soldiers: "no Japanese dared show a leg by day,"<sup>86</sup> and a Japanese soldier reflected in his memoirs that "sleep was not easy, as the planes were roaring overhead we would wake in a cold sweat in the midst of a horrible nightmare."<sup>87</sup> That said, the (in)accuracy of the weaponry and poor training continued to hinder Allied efforts; at Razabil 145,205lb of bombs were dropped on Japanese trench positions to little effect.<sup>88</sup> OC 113 Sqn noted after an attack at Maungkan that it was "only the second time I had dropped bombs and none of us in the squadron had had any training in the art."<sup>89</sup> The requirement for technological advancement and precision was as pressing then as it is today, and despite the limitations of weaponry, doctrine and training, the necessity for joint action was driving the integration. Yet none of this activity would have been possible without the freedom to manoeuvre in the skies.

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<sup>83</sup> Russell, *Forgotten Skies*, 97.

<sup>84</sup> Lt Col Crofton quoted in Major General Ian Grant, *Burma: The Turning Point* (Barnsley: Leo Cooper, 2003), 67.

<sup>85</sup> Air Chief Marshal Park. Supplement to the London Gazette, 13<sup>th</sup> April 1951, 2137 para 123.

<sup>86</sup> Vincent Orange, *Sir Keith Park* (London: Methuen, 1984), 204.

<sup>87</sup> Park, Supplement to the London Gazette, 2134 para 94.

<sup>88</sup> *Ibid.*, 104.

<sup>89</sup> Franks, *The Air Battle of Imphal*, 56.

Turning to control of the air, both Slim and Park understood well the importance of air superiority<sup>90</sup> if the Land Forces were facing the potential threat of an enemy air force, and Park noted that at Burma in 1943 the “air battle had first been won before embarking on the land battle.”<sup>91</sup> This was particularly critical for the Burma campaign, not only to conduct tactical air support missions in relative safety and reduce the threat to the soldiers, but crucially to ensure the protection of the Air Transport aircraft, which were providing the essential logistical support for the ground troops.<sup>92</sup> While Park noted that by 1944 the Japanese Air Force had been neglected in favour of the Land Forces, it had posed a significant threat earlier in the campaign against the more aged RAF airframes, triggering Pierse to urgently request “night fighters with state of the art interception equipment.”<sup>93</sup> The incremental advancement of capability highlighted the importance of technology to air operations, where in the case of pilot equity, small differences in aircraft performance led to success or failure. This was evidenced by the changing fortunes of the RAF and JAAF as improved fighters were introduced to the Theatre: the dominance of the JAAF was decisively changed by the arrival of the Spitfire; the ascendancy swung back to the Japanese following the introduction of the Toto fighter, which the RAF countered with the Spitfire Mk VIII. It was a “little Battle of Britain, a long way from home,”<sup>94</sup> and highlighted the centrality of modern equipment. The success paved the way for the defining air power contribution to the Burma campaign: that of Air Transportation.

It is a common misperception that Air Transport was a relatively new concept to the RAF in 1942, although Collier’s comments that he was surprised to “see no mention of transport aircraft for the solution of supply problems during...an advance into Burma”<sup>95</sup> is evidence that the doctrine was likely to be nascent and relatively unfamiliar to the planning teams. For Slim, Air Transport had already proved its worth during his personal experience of operations in Iraq during the siege of Habbaniyah and in India at Chitral. However, nothing on the scale of what was about to occur at Burma had ever been attempted, and the over-riding opinion of the time was that “large scale supply of an army on the move could only be carried out by land or sea.”<sup>96</sup> Of great significance to the operations in Burma was the inhospitable terrain in which Land operations had to be conducted, which consisted of mainly mountainous jungle. Allied to this was the almost complete absence of rail and road infrastructure, which meant that a ‘traditional’ re-supply solution would be extremely problematic.

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<sup>90</sup> The terms ‘Control of the Air’, ‘Air Superiority’ and ‘Air Supremacy’ have all been used as concepts to refer to the requirement to win the battle against the enemy air force in order to achieve a degree of freedom of manoeuvre in the skies. The terms will be used interchangeably; their meaning is essentially the same.

<sup>91</sup> Park, Supplement to the London Gazette, 2133 para 73.

<sup>92</sup> Franks, *The Battle of Imphal*, 53.

<sup>93</sup> Pearson, *The Burma Air Campaign*, 69.

<sup>94</sup> Probert, *The Forgotten Air Force*, 244.

<sup>95</sup> Pearson, *The Burma Air Campaign*, 66.

<sup>96</sup> *Ibid.*, 68.

The first use of Air Transport operations for exclusively re-supplying an army in the field began with the Chindit operations, by a disparate and hardy bunch of soldiers who operated deep in the jungle behind the Japanese lines, effectively opening up a second front. The Chindits were led by Wingate, a controversial but effective commander, who was revered by the US – although not of central relevance to air power, it highlighted the importance of personality and relationships in alliance operations. The US admired his tenacity and aggression, something that they “found in short supply by the British Generals in India,”<sup>97</sup> and accordingly allocated significant AT provision to the task.<sup>98</sup> Wingate was a maverick and prepared to accept the risk with what was in essence new doctrine, and seemed to relish the challenge, describing the re-supply plan as “like Father Christmas, down the chimney.”<sup>99</sup> The RAF and USAF aircraft conducted a number of successful sorties, releasing hundreds of tonnes of equipment and even flying a Medical Evacuation (MedEvac) mission using a C47 to collect seventeen wounded soldiers from a hastily constructed airstrip in April 1943. Yet the Chindit operations were just a fraction of the overall Air Transport operations which played a defining role across the region. The main air route into Theatre was so regular it was referred to as ‘The Hump’, and soon the tactical re-supply integration became so successful, embedded and reliable that Slim remarked “there was no operational plan made in the fourteenth army which was not based on air supply.”<sup>100</sup> Such was the ‘normality’ of the operations that soldiers saw no difference between a Dakota or a 3-tonne truck, and by 1945 Park<sup>101</sup> was ensuring that the fourteenth army of three hundred thousand men were receiving two thousand tonnes of supplies every day. However, this is not to say that the AT operations were conducted without difficult decisions regarding risk and prioritisation. While the span of AT operations during the course of the campaign are too numerous to summarise, there are two examples where the effect was absolutely central to the survival of the Allied Forces.

The first was during the ‘Battle of the Admin Box’ in February 1944. Slim was aware that the Japanese doctrine was to carry few supplies and use the provisions left behind by the enemy in retreat. When XV Corps became cut off, rather than retreat, Slim ordered them to dig-in and await resupply from the air. With seven hundred air-drop sorties conducted, and Allied air superiority shooting down sixty-five enemy aircraft for the loss of just three, the Japanese eventually withdrew as a result of their inability to logistically sustain the offensive.<sup>102</sup> The second example of AT importance was during the Battle for Imphal in Spring 1944, which Slim has described as the “most decisive of the whole campaign.”<sup>103</sup> Such was the significance of this operation that an entire Division was moved from one front to another several hundred miles away, requiring seven

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<sup>97</sup> Bjorge, *Merrill's Marauders*, 6.

<sup>98</sup> Including a US ‘Air Commando Group’ comprising of over 250 aircraft.

<sup>99</sup> Pearson, *The Burma Air Campaign*, 78.

<sup>100</sup> Slim, “Some Aspects of the Burma Campaign”, 329.

<sup>101</sup> Who had replaced Pierson as C-in-C South East Asia Command.

<sup>102</sup> Probert, *The Forgotten Air Force*, 168.

<sup>103</sup> Slim, “Some Aspects of the Burma Campaign”, 333.

hundred and fifty eight sorties. As Imphal became a Japanese siege, one hundred and twenty thousand Allied soldiers survived for over three months with resupply exclusively from air-drop.<sup>104</sup> This logistical effort enabled the biggest defeat of the Japanese Forces that they had ever suffered, and Slim noted that they never really recovered; after the event it was suggested the most decisive piece of equipment in the Allied Forces arsenal had been the Dakota.<sup>105</sup> Despite this success, there were enormous pressures on the AT Force; highlighting that the requirement for air assets often exceeds the supply. In the early days resources were extremely scarce, and such was the pressing need for air-drop capability that in 1942 Major General Brereton's 10<sup>th</sup> Air Force B17 Bombers were "pressed into service as transports."<sup>106</sup> the adaptability and joint action was at its most impressive with a compelling operational requirement.

By contrast, with the Allies in the ascendancy by 1945, and the operational pressure to survive having been overtaken by the drive for success, old inter-service rivalries began to emerge. Park claimed that he had met Mountbatten's mandate, and that the logistical failings were due to the Land supply chains; citing that Lt General Leese<sup>107</sup> was displaying "old fashioned ideas about the control of air forces."<sup>108</sup> By contrast Leese claimed that he was battling disinterest from the USAF who were concerned with re-supplying their forces in the north of the country, and highlighted a 25% wastage of resources from the RAF.<sup>109</sup> However, Gp Capt Donaldson, CO 117 and 194 Sqns noted the extreme difficulty in locating jungle DZs with hazardous approaches, particularly during the monsoon season.<sup>110</sup> Thus the truth was likely to be somewhere in the middle, with operations over difficult terrain a complex and nuanced process. Air Transport operations were therefore a defining contribution to expeditionary air power in the Burma Campaign, and were wedded to the military strategy. Underpinning the three characteristics of AT, control of the air, and air support, was the need for Land and Air Force integration.

The notion of centralised joint air-land operations had its roots in the Western Desert where Coningham<sup>111</sup> had shown great art as a practitioner of air power and "devised systematic air control doctrine."<sup>112</sup> This importance of combining the air and land headquarters had been recognised by Slim, who had learnt a "sharp lesson" during his time in Sudan,<sup>113</sup> and together with Pierse they set about a wholesale restructuring of the headquarters command chain, which co-located air and land forces. Park refined the structure further, simplifying the complexity of the

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<sup>104</sup> Probert, *The Forgotten Air Force*, 187.

<sup>105</sup> Rooney, *Burma Victory*, 61.

<sup>106</sup> Pearson, *The Burma Air Campaign*, 56.

<sup>107</sup> C-in-C 14<sup>th</sup> Army, working for General Slim.

<sup>108</sup> Orange, *Sir Keith Park*, 207.

<sup>109</sup> Rowland Ryder. *Oliver Leese*. (London: Hamish Hamilton, 1987), 219.

<sup>110</sup> Probert, *The Forgotten Air Force*, 252.

<sup>111</sup> Operating closely with Montgomery during the campaign, and devising doctrine that we now refer to as Close Air Support.

<sup>112</sup> Hall, *Strategy for Victory*, 130.

<sup>113</sup> Slim, *Defeat into Victory*, 9.

staffing process and clarifying the command chains.<sup>114</sup> This model of centralised command and decentralised control endures today. Yet the effectiveness of this ‘process’ of integration was underpinned by a mindset, forged by excellent relationships. The joint approach was embraced at the most senior level, and flowed to the most junior rank, where the co-operation, understanding and integration of airman and soldier was superb as they lived and worked together.<sup>115</sup> This even extended to coalition command chains, where (uncharacteristically) USAF units fell under the command and control of the C-in-C SEAC (albeit after the involvement of Marshal and Montgomery who had to “read the riot act”<sup>116</sup> to both commanders.) However, while this was very much a process enhanced by relationships and mindset, it is important to note the role that circumstance played: the integration was at its best with the right people in charge *and* a pressing operational requirement. As the operational need diminished, the requirement to integrate faded revealing single-service priorities, and a campaign that had been a paradigm of joint action became a distant memory in the coming decades.

Despite the questionable political strategy for Burma, the military operations marked a turning point for jointery, with victory achieved “by a remarkable alliance between the ground forces and well applied air power.”<sup>117</sup> A lack of coherency and resource marked failure at the beginning of the campaign, but a joint approach between coalition air and land forces enabled a rout of the Japanese Forces by 1945, during which the contribution of expeditionary air power had been defining. The evolution of nascent tactical air support doctrine enabled soldiers to fight with ascendancy, Allied air superiority denied the Japanese Forces freedom of manoeuvre, while creating the air environment for successful air transport activity – without which the Allies would have likely suffered defeat borne of logistical failure. However, while the operations displayed a high level of joint integration and understanding based on key relationships, the importance of which is enshrined in contemporary doctrine,<sup>118</sup> the salutary lessons on integration were quickly forgotten in the years that followed, as agendas based on componency and single-service took hold. Sixty years later, as joint operations commenced over Afghanistan, the same enduring themes would be re-established.

## Afghanistan

The third expeditionary case study will consider the contribution of RAF air power to contemporary operations in Afghanistan, a ongoing campaign that has entered its thirteenth year since the initial attempts to remove the Taliban in 2001. This case study highlights a very different context to that

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<sup>114</sup> Orange, *Sir Keith Park*, 202.

<sup>115</sup> For example, at Wangjing the accommodation for soldiers and aircrew alike were just “holes in the ground.” Franks, *The Air Battle of Imphal*, 79.

<sup>116</sup> Pearson, *The Burma Air Campaign*, 93.

<sup>117</sup> Probert, *The Forgotten Air Force*, 309.

<sup>118</sup> United Kingdom, Developments, Concepts and Doctrine Centre. *Campaigning*. JDP 01 2<sup>nd</sup> ed. (Shrivenham, DCDC, 2008), 4A-2.

of both the inter-war years and Burma, yet despite the changing strategic and operational landscape the continuity of the air power themes is apparent, with attack, mobility and integration being central. However operations in Afghanistan have also seen the exponential rise in demand for Intelligence, Surveillance, Targeting and Reconnaissance<sup>119</sup> (ISTAR) as technological capability has increased markedly over recent years, and the Land Forces use every possible form of intelligence to 'understand' the complex environment. The complexity of the Afghanistan operating environment also highlights additional sub-themes, including: public perception and the role of the media; the complexities of alliance operations; the enduring requirement for low collateral precision weapons and the concept that control of the air is never truly assured; even a relatively low-tech insurgency can present a (strategic) asymmetric threat to air operations.

The structure for this case study analysis will take the form of four sections; the first setting the strategic context, before looking in the second section at the three distinctive phases of the air contribution, and the COIN environment. The third section will analyse the key air power contributions of attack and ISTAR, with the fourth highlighting the critical requirement for air transport. Throughout, the golden thread of integration will be highlighted as a defining requirement of expeditionary air operations in Afghanistan.

Starting with the strategic context, while it remains too early to make a judgement on the final outcome of the campaign in terms of success or failure, it is important to note the variety and accuracy of contemporary analysis that has occurred 'in contact'. Several themes emerge: first, academic analysis has focused predominantly on the strategic rather than the tactical level, partly, in all likelihood, so as to avoid controversial criticism of British Forces currently engaged on operations. Second, as the operations are ongoing, much information remains in the classified domain, particularly regarding ISTAR, and this has led to an incomplete open source analysis of capabilities. Third, the shifting political desire and campaign end-state has somewhat overtaken early academic analysis - for example, much was made of the apparent success of air power in defeating the Taliban in 2001, before the decision was taken to embark on long term stabilisation and counter insurgency activities in the country.

Unlike air operations during the inter-war years and the Burma campaign, operations in Afghanistan have enjoyed far less certainty in terms of policy and strategy: the House of Commons Defence Committee reported that "the nature of the mission and its importance to UK interests have varied throughout the campaign".<sup>120</sup> Even the justification for the initial operations remains unclear. Academics have speculated that Britain became involved for reasons of coalition politics

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<sup>119</sup> The British include Targeting in the terminology, by comparison the US refer simply to ISR.

<sup>120</sup> United Kingdom, House of Commons Defence Committee, 4<sup>th</sup> Report, Operations in Afghanistan 2010-2012, Vol 1, July 17 (2011). <http://www.publications.parliament.uk/pa/cm201012/cmselect/cmdfence/554/55404.htm#a5> (accessed March 18, 2014.)

with the US;<sup>121</sup> others suggest that this was a response to a NATO Article 5 attack;<sup>122</sup> the British Government cited the importance of the counter-narcotics effort (after taking on lead-nation status following the G8 in 2002);<sup>123</sup> and throughout the US has articulated the primacy of the counter terrorism effort. However even by 2009 the policy remained opaque, and President Obama's guidance created an "impossibly complex web of intermeshed factors, spanning development to security sector reform to state building".<sup>124</sup> Thus an attempt to link expeditionary air power to strategy for Afghanistan is a nuanced affair, and, although Clausewitz was certain that "the first act of judgement...is to establish the kind of war on which [they] are embarking",<sup>125</sup> the reality of a coalition operational end state in Afghanistan remains less clear. Without a clear policy, the accordant strategy has veered and hauled, and with it a continual adjustment of the means and the ways. The overall air power resources have been largely unchanged since 2006, with a Force structure in Afghanistan that has been predominantly fixed in quantity, although air power has seen a marked shift in its employment as the Land focus has progressed from the kinetic end of the spectrum, to an agenda based on stability, reconstruction and training, and consequently the air power contribution to COIN operations will be the focus of analysis. However, despite the British media interest with Army operations in Helmand since 2006, it is important to acknowledge that RAF expeditionary air power commenced operations over Afghanistan in 2001.

Turning to the second section of the case study, the expeditionary role of the RAF in Afghanistan can be seen to have taken three distinct phases: initial operations in 2001, limited operations from 2004-2006, and joint operations following the deployment of the British Army since 2006. The US Government was quick to react to the terrorist attacks of 9/11 with a retaliatory policy against Osama Bin Laden and the Taliban-led state of Afghanistan. RAF VC10, Canberra and Nimrod R1 aircraft all made niche contributions to the largely US led campaign, demonstrating that air power could make a responsive and politically significant contribution to a key alliance with minimal operational risk and commitment. That air power offers both strategic effect and political choice for a relatively small commitment of forces is a key sub-theme that also endures, with recent operations in Mali highlighting the opportunity for a discretionary and minimum-risk contribution to an alliance. With the British Army 'fixed' in Iraq during 2004, the second phase of RAF expeditionary operations in Afghanistan commenced, most notably with a deployment of Harriers to Kandahar airfield, predominantly in support of Special Forces operations. There is little analytical documentation about this period, although personal testimony attests that it was a quieter episode for operations over Helmand with little kinetic activity,<sup>126</sup> largely because the

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<sup>121</sup> Colin Gray, *Airpower for Strategic Effect* (Alabama: Air University Press, 2012), 247.

<sup>122</sup> Andrew Michta, *The Limits of Alliance: The United States, NATO and the EU* (Oxford: Rowman and Littlefield, 2006), 7.

<sup>123</sup> Mark Sedra, "Security Sector Reform in Afghanistan: The slide towards expediency," *International Peacekeeping* 13 no. 1 (2006): 94-110.

<sup>124</sup> Tim Bird and Alex Marshall, *Afghanistan: How the West Lost its Way* (London: Yale University Press, 2011), 221.

<sup>125</sup> Carl von Clausewitz, *On War* (New Jersey: Princeton University Press, 1976), 88.

<sup>126</sup> Andy Lewis in Loveless, *Blue Sky Warriors*, 18-34.

military footprint on the ground consisted of fleeting strikes and withdrawal rather than a permanent presence, and consequently less insurgent activity was attracted. This partly accounts for the change in operational tempo that followed the arrival of 16 AAB in 2006, fighting a highly kinetic battle immediately following their insertion, and it is the air operations from this date to the current period that have defined the RAF expeditionary contribution to the Government strategy of COIN operations.

Before looking at the specific contributions of attack, ISTAR, AT and Integration, it is worth highlighting some of the nuances of the COIN environment for Air Power. First, the RAF had focused on high-end, electronic warfare type operations prior to Afghanistan, and it took eight years for the Air Warfare Centre to produce relevant COIN doctrine.<sup>127</sup> That said, although extant Close Air Support doctrine was largely procedurally sufficient, issues with the capability of the equipment came to the fore (to be explored further in the next section) and this highlighted a peculiarity of the COIN environment: the difficulty of distinguishing combatants from non-combatants.<sup>128</sup> Second, when this difficulty was combined with quick target-of-opportunity cycles, there were significant instances of collateral damage, such as attacks on a wedding party<sup>129</sup> and fuel bowser.<sup>130</sup> Third, while not conducted by British aircraft, these attacks were reported as NATO strikes and this highlighted an issue with coalition operations: allied air power was tarred with the same brush. Such reporting sparked debates about the utility of air power in COIN operations, and the UK media were quick to exploit opportunities to expose stories, such as drone warfare<sup>131</sup> and 'useless' Harriers.<sup>132</sup> This media reporting is significant, as a remarkably good RAF record of discriminate and proportional air activity has not necessarily been recorded as such in the public domain. In a COIN battle where the centre of gravity is the 'hearts and minds' and psychology of the people,<sup>133</sup> and the legitimate use of force is key,<sup>134</sup> success is heavily influenced by perception, and the media are central to this. Thus the coalition air activity over Afghanistan in the globalised world of the twenty first century is a far cry from the Air Policing environment that the nascent RAF operated in a century beforehand. However, an integrated attack and reconnaissance capability was as vital over the deserts of the Middle East in the 1920s, as it was when British Forces began joint coalition operations in Helmand in 2006.

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<sup>127</sup> United Kingdom, Air Warfare Centre, *Counterinsurgency Primer* (MOD: Air Warfare Centre, 2009.)

<sup>128</sup> Gray, *Airpower for Strategic Effect*, 245.

<sup>129</sup> Emma Graham-Harrison, "Afghanistan suffers day of bloodshed at hands of NATO and Taliban," *The Guardian*, June 6 (2012), <http://www.theguardian.com/world/2012/jun/06/afghanistan-bloodshed-nato-taliban> (accessed March 25, 2014).

<sup>130</sup> The Daily Telegraph, "NATO airstrike on Afghanistan fuel truck kills 40," *The Daily Telegraph*, September 4 (2009), <http://www.telegraph.co.uk/news/worldnews/asia/afghanistan/6136494/NATO-airstrike-on-Afghanistan-fuel-truck-kills-40.html> (accessed March 14, 2014).

<sup>131</sup> Channel 4 News. "UK drone usage grows despite controversy," *Channel 4 News*, September 6 (2013), <http://www.channel4.com/news/reeper-drone-uk-waddington-ministry-of-defence-afghanistan> (accessed March 15, 2014).

<sup>132</sup> Barnwell, Matt. "Major attacks useless RAF in leaked emails," *The Daily Telegraph*, September 23 (2006),

<http://www.telegraph.co.uk/news/worldnews/1529620/Major-attacks-useless-RAF-in-leaked-e-mails.html> (accessed March 1, 2014).

<sup>133</sup> Colin Wier, "Using Air Power in a Small War," *British Army Review* 157 (2013): 19.

<sup>134</sup> United Kingdom, MOD. *Joint Doctrine Publication 0-01: British Defence Doctrine*. (MOD: Defence Concepts and Doctrine Centre, 2011) 1-22.

The third section will analyse the role that air attack and ISTAR played in support of Land operations from 2006 to the current day. Col Tootal, CO 3 Para, made a damning criticism of the capabilities of the Harrier Force in 2006, describing them as “fast jet fighter jocks”<sup>135</sup> and claimed that the aircrew did not understand the risk that his men were under, articulating that he preferred the superior capability of the US A-10 platform for close air support. This simple analysis highlighted well many of the issues that surfaced during the early days of the Afghanistan campaign. First, while the Harrier was a good platform for close air support and the crews were trained and experienced in the role, the equipment was initially not as capable as that touted by other NATO nations, including the US, Denmark and Holland.<sup>136</sup> While the role equipment had a coercive effect and was in fact employed greatly across the Theatre, it was not well suited to the environment (in particular the targeting of individual insurgents), and a IV Sqn pilot reported accordingly when he was unable to distinguish between friend and foe: “there was nothing I could do.”<sup>137</sup> It therefore took criticism from the UK Land Forces, played out in the media at time, to add impetus to the Harrier upgrade programme.<sup>138</sup> Second, although Tootal does not overtly acknowledge it, his criticisms in fact highlight the compelling requirement for air support to the land operations, particularly during ‘troops in contact’ situations, where kinetic activity was used in a responsive manner to assist soldiers in danger.<sup>139</sup> Yet the narrative is inconsistent, and senior Army officer calls for fast jets to be scrapped<sup>140</sup> are at odds with the clear demand for integrated air-land operations, with the over-riding empirical evidence from Afghanistan being that the demand for fast jet and armed ISTAR assets capable of Close Air Support always outstripped supply.<sup>141</sup> Third, Tootal’s analysis of the RAF capability should not have come as a surprise. Defence had prioritised CAS training amongst RAF crews for many years, particularly after the abortive Exercise Saif-Sareea II held in Oman during 2001,<sup>142</sup> and both JTACs and aircrew were well versed in procedures. The failures came therefore with both the MOD equipment programmes and with the education of the company and battalion commanders, who had to learn the realities and limitations of ALI during the operations and not in advance. This was not exclusive to 16 AAB, and Weir highlighted that such experiences continued during subsequent tours with other Brigades.<sup>143</sup> Thus the early attack operations in Afghanistan should be seen as a progressive process of improvement, with early equipment shortfalls being upgraded, operational experience making up for training inadequacies, and an over-riding need for an integrated attack capability.

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<sup>135</sup> Stuart Tootal, *Danger Close: Commanding 3 Para in Afghanistan* (London: John Murray, 2009), 206.

<sup>136</sup> 2006 Harrier weapon loads included unguided freefall 500lb bombs and rockets, an ageing TIALD targeting pod, a set of binoculars, and no datalink. By contrast US platforms could provide video datalink from advanced targeting suites and more advanced weaponry.

<sup>137</sup> Tim Ripley, *Air War Afghanistan: US and NATO Air Operations from 2001* (Barnsley, Pen and Sword, 2011), 97.

<sup>138</sup> Sniper advanced targeting pods entered service in 2007, with Paveway IV 500lb Laser / GPS guided weapons in 2008.

<sup>139</sup> Weir, “Using Air Power in a Small War”, 23.

<sup>140</sup> Marco Giannangeli, “RAF fury at Army call to scrap jets,” *The Daily Express*. February 6 (2011),

<http://www.express.co.uk/news/uk/227376/RAF-fury-at-Army-call-to-scrap-jets> (accessed March 10, 2014).

<sup>141</sup> Bing West, *The Wrong War: Grit, Strategy and the Way out of Afghanistan* (New York: Random House, 2011), 128.

<sup>142</sup> Which highlighted the inadequacies of Air-Land Integration.

<sup>143</sup> Weir, “Using Air Power in a Small War,” 19.

That said, there has been relatively little analysis regarding the long-term effectiveness of attack operations in the COIN environment.<sup>144</sup>

The utility of attack as an instrument of coercion in COIN operations is a contested notion. The desire of the Land Forces to employ 'fast-air' is not in doubt, with a significant proportion of insurgent deaths attributed to air strikes alone.<sup>145</sup> However, there is evidence that the novelty of a graduated air strike response became less effective as time progressed, with the Taliban becoming familiar with 'Shows of Force', and aware that the coalition desire to balance risk against civilian casualties<sup>146</sup> meant that fewer large weapons were employed as the campaign progressed. Weir cites a battalion commander who did not request a single guided bomb during one thousand engagements, noting that it "would have set the confidence cursor back to the left."<sup>147</sup> There are also limits to what air power could achieve in terms of psychological coercion; a battle group commander noted that when the local population refused to open their market at Saidabad due to Taliban influence, "having every allied aircraft in central Asia overhead would have made no difference."<sup>148</sup> However, that said, air power has been an asymmetric advantage to the coalition and attack operations have been used routinely, day and night and in all weathers to target key leader insurgents, and in support of coalition troops who were under attack. What has become clear, in line with the coalition desire to prevent civilian deaths, has been the increased use of low collateral weapons such as Brimstone, Hellfire and Cannon; Flt Lt Carter claimed "reducing collateral damage was always at the forefront of your mind."<sup>149</sup> This tactical requirement was linked very strongly to strategy, as civilian deaths due to airstrikes had become a key political debate; although statistics record that by far the most significant threat to civilians was from IEDs and the Taliban itself. Yet the rise in precision has also raised important ethical questions, particularly as the war is not linked to the question of national survival and the campaign has begun to "lose its reservoir of support among citizens."<sup>150</sup> These include the public appetite for a 'clean war', where precision weapons offer the technology to discriminate, and therefore the moral obligation to conduct a humane style of warfare that is actually wholly unrealistic.<sup>151</sup> This shift in kinetic air operations from large-scale ordnance to precision, low collateral employment as a means of last resort, has been balanced by an increased demand for ISTAR, which leads to the next area of analysis.

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<sup>144</sup> Jason Lyall, "Airpower and Coercion in Counterinsurgency Wars: Evidence from Afghanistan," *Yale University*. [http://www.jasonlyall.com/wp-content/uploads/2013/10/AFGHAN\\_AIRSTRIKES.pdf](http://www.jasonlyall.com/wp-content/uploads/2013/10/AFGHAN_AIRSTRIKES.pdf) (accessed March 24, 2014).

<sup>145</sup> West, *The Wrong War*, 138.

<sup>146</sup> Loveless, *Blue Sky Warriors*, 28.

<sup>147</sup> Weir, "Using Air Power in a Small War," 25.

<sup>148</sup> *Ibid.*, 25.

<sup>149</sup> Flt Lt Carter (JTAC) quoted in Loveless, *Blue Sky Warriors*, 61.

<sup>150</sup> Michael Ignatieff, "Virtual War," *Prospect*, April (2000): 22.

<sup>151</sup> Charles Dunlap quoted in Haywood, Royal Air Force Centre for Air Power Studies, *Air Power, Insurgency and the "War on Terror"* (MOD: RAF Air Power Centre, 2009), 224.

The Afghanistan conflict has been characterised by a rise in appetite for ISTAR, which has enabled a technological dominance of the battlefield and an extremely fast intelligence dissemination process.<sup>152</sup> A multitude of dedicated imagery, communication, electronic warfare and reconnaissance capabilities are used daily by the land forces, and are a critical component of the desire for 'understanding' in the COIN environment, and as such enhance the ability of commanders to make operational, and even strategic level decision making.<sup>153</sup> New technology such as the REAPER has enabled air assets to provide accurate GPS co-ordinates, real time imagery, and attack operations with either low collateral missiles or guided bombs over a long endurance period.<sup>154</sup> This multi-faceted capability has resulted in the capability of many ISTAR assets overlapping with the traditional domain of the fast jet, and vice versa. Although key differences remain, such as speed, endurance and survivability in a contested environment, the ISTAR / Fast Air spheres have somewhat merged in the COIN environment during the last decade. Therefore attack and ISTAR operations have been a fundamental element of Afghanistan operations, although the contemporary operating environment has placed a premium on precision, collateral damage limitation and the role of the media, which are elements that hitherto had been less important in the previous case studies. In order to conduct the expeditionary COIN strategy these operations have been underpinned by an absolute requirement for joint air-land integration, and nowhere has this been more critical than with the requirement for Air Transport operations.

The final section of the Afghanistan case study will analyse the critical role that Air Transport operations have played in a campaign that has, due to the hostile terrain and potent IED threat, been problematic for the surface manoeuvre of troops. The threat to ground troops is evidenced by the Urgent Operational Requirement bill of £3.6Bn, of which 85% has been spent on protected mobility.<sup>155</sup> It is small wonder that the soldiers placed a premium on the availability of tactical air transport,<sup>156</sup> with the Chinook and Merlin rotary wing assets in particular being critical to operations, and this is evidenced by the memoirs of soldiers that repeatedly praise the bravery of the aircrew and the essential requirement for the assets.<sup>157</sup> The aircraft were used for a number of tasks, including: medical evacuations (often under fire); the movement of under-slung loads; the air-drop of logistics;<sup>158</sup> and the transport of personnel. Between August 2007 and July 2008 alone the RAF Chinook Force moved 82,300 troops.<sup>159</sup> The aircraft gave commanders an inherent flexibility to quickly move soldiers around Theatre in a responsive manner, such as in Zaborabad

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<sup>152</sup> Weir, "Using Air Power in a Small War", 23.

<sup>153</sup> Gray, *Air Power for Strategic Effect*, 290.

<sup>154</sup> Tim Ripley, *Air War Afghanistan: US and NATO Air Operations from 2001* (Barnsley, Pen and Sword, 2011), 124.

<sup>155</sup> Ministry of Defence, "Urgent Operational Requirements – Standing Commitments." *HM Government MoD*, December 12 (2012), <https://www.gov.uk/standing-commitments> (accessed March 26, 2014).

<sup>156</sup> Including the C130 Hercules and Rotary Wing assets.

<sup>157</sup> Tootal, *Danger Close*, 128.

<sup>158</sup> For example the resupply of Royal Marines during Op Aabi Toorah. Roger Annett, *Lifeline in Helmand: RAF Battlefield Mobility in Afghanistan* (Barnsley: Pen and Sword, 2010), 173.

<sup>159</sup> *Ibid.*, 207.

where community elders sought the return of troops following threats from the Taliban,<sup>160</sup> and with the psychology of security as a crucial component of COIN, this example of agile manoeuvre was operationally significant. The aircraft also played a significant role in maintaining the morale of troops, by ferrying parcels and mail to the Forward Operating Bases, and critically it also provided the Medical Emergency Response Team, which was a lifeline during fierce periods of fighting. While Afghanistan was a relatively permissive air environment in the upper air, this was not the case near the surface where the threat to rotary wing operations was significant, with a pilot noting “we were often under fire – machine-guns, rifles, mortars, RPGs, the lot.”<sup>161</sup> This highlighted a point about control of the air: it was not exclusively controlled by coalition forces, and following the loss of the Nimrod in 2006 there was such nervousness from the Government about the threat of greater aircraft losses<sup>162</sup> that the possibility of withdrawing all British Forces from Helmand was considered.<sup>163</sup> This single event, and the concomitant tactical changes<sup>164</sup> highlighted that control of the air was a strategic requirement for the campaign.

In summary therefore, just as the campaign in Burma was a turning point for joint operations, so the air operations in Afghanistan have marked another seminal moment in successful air-land integration,<sup>165</sup> following the single service focus that characterised the military operations of the 1990s. That said, the expeditionary air effort in Afghanistan has taken a nuanced and multifaceted approach that in many ways has reflected the stuttering uncertainty of the political strategy. Three phases of the campaign – support to US operations in 2001, limited operations during 2004-2006, and full spectrum air operations in the years since have required an integrated and joint approach, underpinned by credible attack, ISTAR and air transport operations, free to operate in a (relatively) uncontested air environment. Other themes have also emerged: the issues of coalition activity with regards to public perception, allied to a more immersive media environment that can itself influence the psychology of the very COIN environment that it seeks to report on. Likewise, the enduring theme that novel approaches and equipment have the greatest effect, and that the RAF was lacking in suitable equipment at the beginning of the campaign. Last, although it is too early to judge the strategic success of joint operations in Afghanistan, it is worth noting that criticisms of ambivalence have been levied at the senior politicians, where the sole aim of troop extraction dominated the headlines.<sup>166</sup> In this strategic context of complex international relationships, questionable alliances, limited resources and a war amongst the people, air power can only deliver so much to a campaign. As Gray notes, just as the Battle of Britain was a success that did not itself

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<sup>160</sup> Weir, “Using Air Power in a Small War”, 28.

<sup>161</sup> Annett, *Lifeline in Helmand*, 130.

<sup>162</sup> Triggered by the Soviet experience where over three hundred airframes were lost during the conflict.

<sup>163</sup> James Fergusson. *A Million Bullets: The Real Story of the British Army in Afghanistan*. (London: Random House, 2008), 191.

<sup>164</sup> Rotary wing defensive aids systems were upgraded, armour plating in the cockpit of aircraft, reduced flying activity at low level, and Apache Attack helicopters were used in an ‘escort’ role in order to suppress ground based fire.

<sup>165</sup> Gp Capt Goringe, quoted in Gareth Jennings. “UK focused on maintaining air-land integration post Afghanistan.” *Jane’s Defence Weekly* 24 Sep 2013. <http://www.janes.com/article/27465/uk-focused-on-maintaining-air-land-integration-post-afghanistan> (accessed 23 Feb 2014).

<sup>166</sup> Robert Gates, *Duty: Memoirs of a Secretary at war* (London: W H Allen, 2014).

deliver strategic victory, it would be a mistake to attempt to judge the tactical effectiveness of air power against the success or otherwise of long term Government policy in Afghanistan; in many ways air power has been as “first rate as it has been futile.”<sup>167</sup>

## **Conclusion**

Expeditionary air operations have been a central component of British military strategy since the very birth of air power a century ago. Although the contemporary globalised and connected environment places fresh challenges on the concept of exporting security, recent experiences in the Gulf, Afghanistan and Libya have shown little hesitancy in the political appetite to employ air power overseas. It has offered an alluring capability despite a changing geopolitical and strategic landscape, and within very different economical and political climates: from the time of Empire, through total war, to stabilisation and COIN operations.

The three case studies highlighted three very different Britains, but despite this evolution the air power contributions remained extremely similar in character, with enduring roles that were established and remain of relevance today. First, the nature and scope of air power offered political choice, and remained a viable proposition even during times of piecemeal strategy and financial austerity. During the inter-war years it was precisely this characteristic that made the proposition so compelling. Throughout the case studies, the air had to be secured in order for it to be exploited, and control of the air, whether freely available or contested, was essential for success. Where the Allies were outfought in the air, during the early years of the Burma campaign, the entire operations had shown signs of chaos and retreat. This ability to dominate a domain remains as relevant in the contemporary environment as it was during the early forays of air power, and thinking to the future, the parallels with the cyber and space environments are stark. In all three case studies, attack was a defining contribution to the operations. This was in part due to the effectiveness of novel technology in generating a powerful psychological effect, the potency of the threat from the unknown and unexpected being particularly compelling. Air mobility was an important component during the inter-war years such as during the siege of Kabul in 1929, or through nascent MedEvac activity, however its importance was of greater significance during the Burma and (contemporary) Afghanistan campaigns, where although it did not result in outright victory, it certainly prevented operational defeat. Last, the emphasis on ISTAR in the Afghanistan campaign does not reflect a new air power role, but a fast maturing one that continues to exploit technological advances across the spectrum of the battlefield. The case studies also showed that while air power in isolation was not a solution, the effective use of air power was a critical requirement. Yet notably, in every case study, the key factor of integration and understanding had

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<sup>167</sup> Gray, *Airpower for Strategic Effect*, 252.

to be relearned, in contact, by the deployed soldiers and airmen. Thus the central importance of this concept had been allowed to wither in the years between the conflicts in favour of other single service priorities. In 1947 Lord Tedder commented “we are shackled by the past and never has the future been more difficult to divine. Each of the fighting services must go for speed, mobility and economy, and develop the whole time...in co-operation, not in competition.”<sup>168</sup> Thus the importance of integration is a salutary lesson, but not a new one, and it remains to be seen whether this will repeat as the Forces begin their withdrawal from Afghanistan over the coming months. The case study analysis also highlights further sub-themes, including: the constant drive for technological advancement; the dearth of assets – demand always outstripped supply; the requirement for precision attack and avoidance of collateral damage; the political choice that air power offers; the rising centrality of the media in a landscape of globalisation; and the reputational and capability issues borne of alliance operations.

Throughout the changing geopolitical landscape of the last century, from the time of Empire to a unipolar landscape characterised by complexity, ambiguity and intra- rather than inter-state conflict, the same key characteristics of air power have endured. Yet the evolution of the strategic environment has not provided any certainty with regards to the shape or character of conflict to come. Indeed, the type of operations that followed each of the case studies was very different in form: air policing during the inter-war years was followed by state on state homeland Defence and the Battle of Britain; joint operations in the jungles of Burma were followed by the Cold War characterised by arms races, stand-off and the threat of nuclear weapons; and the COIN of Afghanistan was paralleled by highly kinetic coalition air operations over Libya in 2011. Given this uncertainty, it is not therefore unreasonable to reflect that future RAF expeditionary operations will be as much directed by circumstance as by strategy and agency. This uncertainty is highlighted aptly by the changing views of the Chiefs of Defence Staff, with Sir David Richards stating publicly that the RAF needed more low-tech aircraft,<sup>169</sup> whereas his successor espoused the virtue of “exquisite capability.”<sup>170</sup> Given this uncertainty, and the length of time it takes to procure new equipment, it is perhaps unsurprising that the Harriers deployed to Afghanistan with binoculars. Regarding European conflict, George Osborne commented in 2010 “this is not a war we are likely to face.”<sup>171</sup> In light of the deployment of Typhoon aircraft to Eastern Europe in order to deter a resilient Putin, Osborne’s comments appear naive: history has repeatedly taught us that remote contingencies happen. The recent deployment of Typhoon highlights a key point with air power: an

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<sup>168</sup> ACM Sir Stephen Dalton, “The Future of British Air and Space Power: A Personal Perspective,” *RAF Air Power Review* 13 no. 3 (2009): 2.

<sup>169</sup> General Sir David Richards on the need for more Tucano aircraft (rather than JSF), “Future Conflict and Its Prevention: People and the Information Age.” International Institute for Strategic Studies (2010) <http://www.thinkdefence.co.uk/2010/01/is-the-super-tucano-a-practical-option-for-the-raf/> (accessed March 25, 2014).

<sup>170</sup> General Sir Nicholas Houghton, “Top General Warns over ‘hollowed-out Armed Forces,” BBC News. December 19 (2013). <http://www.bbc.co.uk/news/uk-25440814> (accessed March 20, 2014).

<sup>171</sup> George Osborne quoted in BBC, “Defence Budget Chaotic,” *BBC News*. October 2 (2010). <http://www.bbc.co.uk/news/uk-politics-11457956> (accessed March 15, 2014).

uncertain strategic landscape may require a high-tech response, and the political allure of strategic effect and tactical utility at little cost remains just as relevant in the contemporary environment as it did a century ago. While academics, politicians and defence planners alike are reluctant to commit to predictions about the future operating environment, the spectrum of which ranges from the apocalyptic vision of Gray<sup>172</sup> to the liberal peace of Pinker,<sup>173</sup> the enduring qualities of air power are as relevant for tomorrow as they are today.

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<sup>172</sup> Colin Gray, *Another Bloody Century* (London: Phoenix, 2005).

<sup>173</sup> Steven Pinker, *The Better Angels of our Nature* (London: Allen Lane, 2011).

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