

Air Power lessons from the counter insurgency operations in Malaya, Borneo and Aden

By Squadron Leader James Parker

The conduct of counter-insurgency is, understandably, currently subject to much scrutiny. The aim of the following article is to analyse the strengths and weaknesses of air power as applied during the counter-insurgencies of Malaya, Borneo and Aden in the 1950s and 1960s, and to apply the key lessons to the conduct of contemporary operations. It will be argued that offensive air power can be extremely effective, especially following recent technological developments, but unintended civilian casualties can have a more detrimental impact on the overall campaign. Thus, air power's non-violent contribution has played a more valuable role. In particular, air transport aircraft – notably helicopters – can be important force multipliers in terms of tactical mobility, re-supply and casualty evacuation. Furthermore, the roles of surveillance, reconnaissance and psychological operations should not be overlooked as they too can have a significant effect. However, it is self-evident that air power is not applied in isolation during any counter-insurgency. As history has proved, joint and co-located headquarters are to the advantage of all concerned. Finally, air power practitioners should remember that the political context is of paramount importance to the overall success of any counter-insurgency.

Introduction

This article aims to analyse the strengths and weaknesses of air power as applied during selected counter-insurgencies conducted within Southeast Asia in the 1950s and 1960s, and will attempt to relate key lessons to the conduct of contemporary operations. In order to do this, the essay will explore the fundamental principle that aircraft can contribute more than just an offensive capability and explosive effect, with the aim of explaining how air power practitioners have learned to complement both military and civilian activities. As will be outlined, the Royal Air Force was generally regarded as effective in the counter-insurgency operations of Malaya, Borneo and Aden primarily because of the non-destructive impact it delivered, and that lesson endures today.

This article will initially highlight some of the successes and limitations of offensive air support and then consider the importance of military command relationships. The merits of air transport activities, surveillance and reconnaissance capabilities and psychological operations will then be reviewed because commanders have increasingly realised their effectiveness in supporting both military and civilian activities. The Royal Air Force has been involved in numerous counter-insurgencies, but the historical examples will be drawn exclusively from those of Malaya (1948-60), Borneo (1962-66) and Aden (1963-67). These were some of the more significant operations, but also highlight the apparent paradox to air power practitioners that their efforts were important – but not fundamental

– to the result of the campaign. Indeed, the Royal Air Force's role was broadly similar in all three examples, but the crucial factor was a difference in political approach. Consequently, Borneo was determined as a positive outcome and Malaya is still regarded as a model for counter-insurgency conduct; however, Aden was a strategic failure that undermined any tactical achievements. Although every insurgency is unique, there are many common themes regarding the application of air power in the three historical examples that are still applicable to contemporary operations, and these will be highlighted throughout.

Offensive Air Power

Land forces have traditionally regarded offensive action as the principal role of air power during counter-insurgency operations. Close Air Support effectively assisted troops in contact during the Aden campaign, when 'ground attack aircraft ... were frequently called in to strike rebel forces' that were within close proximity of British infantry but out of artillery range.¹ However, in Malaya the insurgents usually withdrew before strike aircraft could react,² so more often than not their greatest effect was deterrence rather than destruction. The value of these lessons is still apparent today in Afghanistan, where ground forces can be rapidly allocated Close Air Support to defeat insurgents fighting tactical engagements. Nonetheless, then as now, careful co-ordination and control procedures are required between land and air forces to maximise the effectiveness of the latter's support. For example, attack aircraft were the only means of

preventing rebels from over-running an isolated Special Air Service patrol on one occasion in Aden³ although the arrangements for directing the aircraft were improvised⁴ due to insufficient planning. Fortunately, 'forward air control techniques were steadily refined'⁵ during the Aden campaign, with improved planning, training and communications increasing the overall effectiveness of offensive air power. The use of experienced forward air controllers was also a factor in the Borneo campaign,⁶ so that air attacks not only caused maximum damage to the insurgent but also minimum civilian casualties. For much the same reasons, on current operations there is a continuing requirement for sufficient personnel to be properly trained and equipped for the important role of forward air control.

Offensive air support was conducted in Malaya both against specific targets – such as terrorist camps – and areas of jungle judged to contain insurgents.⁷ Unfortunately, 'the impact of offensive strikes was greatly limited' because the dense jungle canopy not only absorbed much of the weapons' explosive force but also made target acquisition difficult.⁸ Consequently, it was argued that piston-engine aircraft were more effective for counter-insurgency operations than the newly introduced fast-jets, because their slower speed meant pilots had longer to locate targets.⁹ However, it was recognised then – and remains true today – that the Royal Air Force 'will have to fight the war with the equipment ... [they] have for other types of war'¹⁰ because a two-tier inventory is unaffordable. Furthermore, subsequent developments in platforms

(including unmanned aerial systems and attack helicopters as well as fast-jets) and weapon technology (particularly advanced targeting pods and smart-bombs) now enable British combat air power to operate effectively in all types of conflict. Thus, practitioners have learned the importance of developing and acquiring equipment for a broad range of applications rather than procuring it purely for contemporary counter-insurgency operations, thereby maintaining a balanced force structure for war fighting and counter-insurgency. Given increasingly stringent financial constraints, this is likely to prove a key challenge for policy-makers and will inevitably be the subject of much future debate.

The importance of adapting strategy to minimise civilian casualties was also a lesson learned during the featured campaigns. The negative effect of civilian injuries and deaths on the 'hearts and minds' campaign was well understood in Borneo by those in command¹¹ as they had seen the benefits of a controlled approach to minimising civilian casualties in Malaya. Today when the 'population is the prize' there remains much concern over the possible adverse consequences of employing unnecessary or indiscriminate air delivered munitions because they can alienate the local population.¹² These concerns are even greater in contemporary operations as improved global communications enable near-instantaneous media coverage, so the use of air power faces 'criticism and scrutiny from a much wider and potentially less sympathetic audience.'¹³ As such, non-lethal escalation measures by

low flying Close Air Support aircraft are employed whenever feasible in Afghanistan.¹⁴ Also, the (former) Commander of the International Security Assistance Force directed that 'minimizing civilian casualties is of paramount importance' and any caused by coalition forces must be immediately acknowledged in the media.¹⁵ All this underlies the fact that offensive air power can really only treat the violent symptoms of an insurgency and not the root cause, which requires an integrated civil-military approach – including the contribution of other forms of air power.

Command and Control

Operations in Malaya, Borneo and Aden revealed that command and control relationships are crucial to the overall effectiveness of counter-insurgency operations, but that the overarching political and strategic approach will ultimately determine the success or otherwise of a counter-insurgency campaign. In particular, it was learned in Malaya and Borneo that 'military operations are always subordinate to political considerations'¹⁶ because 'military action counts for little unless its effect contributes tangibly to a clearly defined strategic or operational end state.'¹⁷ However, in Aden 'the British never developed the apparatus of civil-military co-operation that had proved so effective in Malaya' and Borneo because for political reasons no overarching Director of Operations was appointed,¹⁸ which is one of the factors why the campaign was ultimately unsuccessful. This lesson has been reinforced in Helmand with the establishment of a Foreign Office post that outranks the Task

Force Commander, to head the Provincial Reconstruction Team.¹⁹ Nevertheless, the British government must underpin these command and control relationships with the necessary will to conduct counter-insurgency operations. The Labour government's Defence Review in 1966 concluded (primarily due to a changing strategic outlook coupled with economic pressures) that Britain would not maintain its military bases in Aden beyond 1968, a decision that 'contributed to the escalating violence'²⁰ as it gave succour to the insurgents. There are parallels to the demands between 2003 and 2009 for a date to withdraw from Iraq, albeit more because the initial invasion had been unpopular and the subsequent counter-insurgency appeared unwinnable, which arguably ultimately undermined the effectiveness of British military action, including air power. Thus, it is worth remembering that politicians rather than military commanders are the key to determining the final outcome of a campaign.

While the role of politicians is paramount, the military can make its contribution more successful if it adapts a cohesive approach rather than operating along single-service lines. It has been argued that in Malaya the Royal Air Force 'appreciated the support role as being the dominant role for air power in counterinsurgency warfare,'²¹ but did not become a mere adjunct to land operations. The creation of a Joint Operations Centre during the Malaya Emergency 'was the keystone of the inter-service co-operation on which the campaign was fought and won,'²² and resulted in better allocation of aircraft because airmen understood

the tactical importance of each task as a consequence of their close working relationship with Army colleagues. Joint headquarters are still important for air and land components to better understand each other's requirements, capabilities and limitations. However, Afghanistan counter-insurgency operations see the Headquarters of the International Security Assistance Force in Kabul and the Combined Air Operations Centre in Qatar because the latter is also responsible for air operations elsewhere in the region. An Air Coordination Element is forward based, but its critics have stated that the weight of air planning effort is too far removed from theatre – and liaison therefore more difficult (not least due to communications difficulties) – which can mean operations are not as fully integrated as they might have been otherwise.

Air Transport

Air transport's non-destructive capabilities have supported both military and civilian activity during past British counter-insurgency operations, particularly in the forms of mobility, re-supply and casualty evacuation. Air transport aircraft have significantly increased the tactical mobility of ground forces and the development of helicopters was a major contributory factor. Analysis of Malaya suggests that without helicopters 'four times as many ground forces would have been required'²³ to overcome the limited mobility given the terrain and infrastructure, significantly influencing how future counter-insurgency operations would be conducted.²⁴ In Borneo²⁵ and Aden this approach was continued, where

it was regarded that 'helicopters were the key to the mobility and speed of the [military] campaign.'²⁶

In contemporary operations commanders continue to apply these same lessons, with troops exploiting the surprise achieved by aviation manoeuvre ranging from a battle group assault to a patrol bounce. However, it is crucial that sufficient helicopters are available to achieve tactical mobility, which was not always the case in Borneo²⁷ or Aden²⁸ – reflecting both the cost and the complex engineering of this relatively new capability, which limited procurement of extensive numbers of aircraft. Paucity of assets was a noteworthy issue in Afghanistan that has been somewhat alleviated by the recent American surge, but it still remains that while 'Commanders on the ground have sufficient helicopters to undertake their key tasks ... greater availability of these helicopters would give them more flexibility in the planning of deliberate offensive operations.'²⁹ Fortunately, debate over whether air or land should command and control helicopters at the tactical level, which manifested itself during Malaya and Aden³⁰ with resultant conflicts in tasking priorities, is no longer a noteworthy problem because British assets are deployed within a Joint Helicopter Force under command and control of an Army headquarters.

While helicopters have proved highly successful in terms of achieving tactical mobility where the terrain and threat would have inhibited other forms of ground and air transport, use of fixed-wing aircraft has also been important. For example, in Borneo 'ninety troops were loaded into a Beverley, which made a swift landing

on Seria airfield where the troops leapt clear³¹ and ultimately re-took the town although the aircraft suffered damage from small arms fire. The lesson for contemporary operations is for air power practitioners to balance what air transport aircraft can achieve, for example surprise, speed and reach, in relation to the risks involved. Nowadays, the increasingly high value attached to fixed-wing aircraft means the benefits need to be compelling given the impact of recent Royal Air Force Hercules C130 aircraft losses.³² Furthermore, not all historical examples have been positive – particularly those attempting to achieve tactical mobility by parachuting. In Malaya ‘experience showed that about half of the troops dropped in any operation would in fact become caught in the trees,’³³ causing injury to some and adversely affecting what the unit involved could subsequently achieve. Consequently, this underlines the requirement for suitable operational risk management.

Air transport can also be used with less risk and more reward to further civilian aspects of counter-insurgency operations. In Malaya, ‘on one occasion aborigines were flown to Kuala Lumpur to show the falsity of insurgents’ claims about the collapse of the government.’³⁴ The credibility of the nascent Afghan civil administration was similarly strengthened in 2002 when the Royal Air Force flew Hajj pilgrims to Mecca from Kabul because the Afghan airline could not meet the demand.³⁵ In both examples, minimal effort by one facet of military capability generated disproportionate benefit for those conducting counter-insurgency campaigns as it boosted local perceptions of the British military,

as well as the reputation of the civil power. Therefore, even when aircraft may be sparse and the perceived opportunity cost to military tasking is high, non-military tasks can be the most effective means to further progress towards the overall end state.

Aerial re-supply was another crucial force multiplier, especially in Malaya and Borneo. For example, although British forces were outnumbered ten to one in Borneo, they were successful as the Army could dominate the jungle ‘because of air re-supply’³⁶ rather than expend much effort and resource on simply sustaining itself. Of note, ‘ninety per cent of the logistic supply within Borneo was by air, both air-landed and air dropped.’³⁷ However, ‘although aerial re-supply played a vital role in Malaya, it played a far smaller role in Aden and, although important, did not have the decisive impact.’³⁸ This was because the Malayan jungle was much more impenetrable than the Radfan desert – despite its mountains and lack of roads – and the city of Aden itself. Thus, air power’s comparative advantage over ground manoeuvre very much depends on the operating environment itself. Today, aerial re-supply is a critical capability in Afghanistan, where convoys to forward operating bases are fraught with danger from improvised explosive devices. Thus, helicopters are often used for logistics purposes, thereby contributing to the maintenance of political will for the campaign because these tasks help reduce casualty numbers. In addition, Royal Air Force Hercules C130 aircraft can conduct air despatch to re-supply forward operating bases and mobile reconnaissance patrols, allowing them to conduct longer

operations as a result.

The post-World War Two development of casualty evacuation by aircraft, particularly helicopters, proved 'momentous'³⁹ and 'became a vital component in operations.'⁴⁰ Soldiers could receive medical treatment in hospital within hours of being injured without requiring a patrol to be abandoned, and by the end of the Malaya campaign almost 5,000 casualties had been transported by helicopter.⁴¹ In Aden, 'between April and September 1964 alone, five Army pilots [evacuated] 89 serious casualties'⁴² from the Radfan. Arguably, troops fought that much harder because they knew they would soon receive hospital treatment if wounded; another immeasurable benefit of air power. Military planners have consistently put this knowledge into practice since then, and during modern-day operations in Iraq and Afghanistan coalition forces routinely conduct life-saving casualty evacuation missions. In Malaya, injured civilians were also picked-up, which duly strengthened the 'hearts and minds' aspects of the campaign'.⁴³ Injured civilians in Afghanistan are often moved by helicopter to coalition medical facilities, which can then be publicised by media operations to improve perceptions amongst the population of the military's role in counter-insurgency operations.

Surveillance and Reconnaissance

'Good intelligence is undoubtedly one of the greatest battle-winning factors in counter-insurgency warfare.'⁴⁴ Human intelligence is likely to be the most valuable source of information for counter-insurgency; however, airborne surveillance and reconnaissance are

able to complement such activity,⁴⁵ as occurred during the Malaya, Borneo and Aden campaigns. In Malaya, photographic reconnaissance was undertaken to produce maps and generate aerial photographs for intelligence and briefing purposes.⁴⁶ These 'were used during nearly all ground and air operations as a matter of course and materially contributed to any success which they had'⁴⁷ as troops could familiarise themselves with the ground on which they would operate. In Aden, 'the absence of accurate maps made on-the-scene reconnaissance, which could only be done from the air, essential,'⁴⁸ thus, highlighting the flexibility and speed of what aircraft could achieve. This function of air power is unlikely to be decisive in itself, but has usefully contributed to the overall effectiveness of military operations.

Fast-forwarding to Afghanistan, photographic reconnaissance has benefited from the advancement of technology. Aircraft advanced targeting pods can down-link images to troops on the ground in real-time and analysed pictures can be e-mailed from the collecting aircraft's base location to the requesting battle group headquarters extremely quickly. Satellite technology facilitates more accurate mapping by cartographers. Updated maps indicate newly constructed compounds that can significantly affect collateral damage estimates. Furthermore, technology can be applied to images collected from airborne reconnaissance platforms to identify potential improvised explosive device locations, greatly assisting convoy commanders to plan their routes. Unfortunately, technological advances can also be

used against coalition forces; for example, commercial satellite imagery websites allow insurgents to better target their indirect fire attacks.⁴⁹

Surveillance has also proved an effective facet of air power. In Malaya, airborne surveillance 'occasionally got fairly good spotting'⁵⁰ of 'terrorist hideouts'.⁵¹ It is difficult to quantify the effect achieved, but numerous insurgent camps and cultivations were located over a sustained period.⁵² Deception tactics by aircrew were required to retain surprise as insurgents became 'extremely conscious of aerial surveillance and were liable to move away from an area if they thought they had been spotted ... on the assumption that it heralded the presence of ground forces or imminent air-strike action.'⁵³ That said, the deterrent effect achieved by these surveillance aircraft contributed to the overall attrition of the insurgents. However, the Malayan weather – especially heavy cloud in the afternoon – meant that constant monitoring was not achievable. The importance of surveillance was also realised in Aden, where 'the British employed helicopters in crowded urban areas to alert ground forces to any sign of trouble (such as crowds massing, incipient riots, etc.) as well as to spot terrorist movement.'⁵⁴

Today, visual surveillance is more likely to be conducted by unmanned aerial systems, but even these 'can be limited by the weather'⁵⁵ – particularly wind and cloud – and their noise can alert the enemy. Insurgents in Afghanistan coalesce even more rarely than those in Malaya. This makes locating them through visual surveillance alone more difficult. The development of

technology has helped overcome this historical difficulty, with the introduction of platforms such as the Royal Air Force's Sentinel Airborne Stand-Off Radar aircraft, which conduct wide-area radar sweeps to cross-cue (alert) visual surveillance aircraft to a potential target. Similar effects can also be achieved utilising signals intelligence platforms.

Psychological Operations

Psychological operations may require more niche capabilities than traditional warfare, but previous operations suggest a potentially positive contribution to overall campaign success. In Malaya air power facilitated a large-scale psychological operations campaign to undermine support for the insurgents and their cause. In total, the Commonwealth air forces delivered nearly 500 million leaflets and broadcast almost 4,000 hours of voice recordings.⁵⁶ Significant numbers of those who surrendered attributed their actions to hearing or seeing these products, which arguably played a greater role than force in defeating the insurgent,⁵⁷ even if 'the exact number who were thus persuaded will never be known.'⁵⁸ Measuring the success of non-destructive warfare is still very difficult, although it is possible to assess effectiveness based upon predicted reactions, which may be observed by airborne surveillance.

Not all attempts to utilise air power for psychological operations have been successful. The British attempted to 'reimpose a form of air control'⁵⁹ during 1964 in the Radfan and leaflets were occasionally dropped to provide warnings that a punitive air bombardment of a

specific target would follow. This type of air policing and control was limited as (unlike during the inter-war period when such techniques were similarly applied) the effects were quickly broadcast and poorly perceived by a global audience. Such actions would not be countenanced nowadays, but non-violent psychological operations in Afghanistan have been used to publicise tangible reconstruction achievements and they have also attempted to influence insurgents that are deemed reconcilable.⁶⁰ In this way, psychological operations are not only used to gain military advantage, but also enhance civilian campaign activities such as improving the perception of governance amongst the local population. Air power's reach can mean it may be the only way of delivering the desired message.

The Royal Air Force did not initially possess aircraft to effectively broadcast the psychological operations messages in Malaya, but these were soon procured from the United States.⁶¹ Today, there are similar challenges regarding balanced force structures. Technology allows messages to be broadcast onto televisions and radios (rather than by loud-speakers on aircraft) but the Royal Air Force lacks platforms with this capability despite their utility in both high and low-intensity warfare. Consequently, American aircraft must be requested, but might be subsequently tasked elsewhere, potentially adversely affecting the credibility of British psychological operations if such broadcasts had been promised at a certain time. Nonetheless, air power's non-violent contribution to psychological operations – if applied appropriately

– can help change the cognitive environment, which is more likely to yield successful results in the longer-term than offensive air support.

Conclusion

In conclusion, analysis of Malaya, Borneo and Aden indicates that offensive action is not the sole effective means of employing air power when conducting a counter-insurgency campaign. Close Air Support can be effective at the tactical level, but the impact of civilian casualties – particularly when highlighted by the media – although unintended can have adverse strategic consequences. Thus, the non-violent contribution of air power has often played a more valuable role. Air transport is a critical capability of tactical mobility. Certainly the development of helicopters has enabled more effective delivery means and brought a sea change with regard to casualty evacuation, while aerial re-supply continues to be an effective force multiplier. Crucially, air power can generate disproportionate advantages to the conduct of what would normally be considered civilian lines of operation, such as improving the perception of governance, although the apparent cost to military activity may prohibit practitioners from employing such methods. Technology has particularly enhanced surveillance and reconnaissance platforms (which are increasingly space-based) and psychological operations capabilities; however, while these non-destructive capabilities can achieve great success, they must be applied appropriately and the effects may initially be difficult to quantify.

The military campaigns of Malaya,

Borneo and Aden have provided lessons about the importance of military command structures. Joint and co-located headquarters offer the best construct to fully integrate all military efforts; thereby increasing the likelihood that air power is a valued partner playing a supporting role rather than an adjunct to land operations – to the advantage of all concerned. Nonetheless, air power's roles and command chain are just a few pieces in the complex jigsaw of counter-insurgency. Whether the picture will be successfully completed depends very much upon the overall political approach. For example, in Aden 'air power had proved a winning factor in a lost war.'⁶²

In sum, the experience gained from Malaya, Borneo and Aden 'continues to inform Royal Air Force thinking with respect to the role of airpower in small wars.'⁶³ When applied appropriately, the non-violent as well as strike capabilities of air power can be extremely effective and therefore contribute much to the overall counter-insurgency operation. In conclusion though, history has demonstrated to air power practitioners that their efforts can help win battles of both bullets and minds, but politics is equally important to determining the result of the campaign.

Notes

- ¹ Sebastian Ritchie, "RAF Counter-Insurgency Operations in Oman and Aden, 1950-1970." *Air Power Review* 11, no. 1 (Spring 2008), 64.
- ² Malcolm Postgate, *Operation Firedog* (London: HMSO, 1992), 41.
- ³ John Newsinger, *British Counterinsurgency From Palestine to Northern Ireland* (Basingstoke: Palgrave

MacMillan, 2002), 115.

- ⁴ Julian Paget, *Last Post: Aden 1964-67* (London: Faber and Faber, 1969), 65.
- ⁵ Sebastian Ritchie, "RAF Counter-Insurgency Operations", 67.
- ⁶ Walter Walker, "Borneo". *British Army Review*, no. 32, (August 1969), 12.
- ⁷ Postgate, *Operation Firedog*, 40.
- ⁸ James Corum and Wray Johnson, *Airpower in Small Wars* (Kansas: University Press of Kansas, 2003), 194
- ⁹ *ibid.*, 197.
- ¹⁰ A Peterson, G Reinhardt and E Conger, eds, *Symposium on the Role of Airpower in Counterinsurgency and Unconventional Warfare: The Malayan Emergency* (Santa Monica: RAND, 1963), 82.
- ¹¹ Walker, "Borneo", 9.
- ¹² Stephen Grey, "A bloody risky way to beat the Taliban." *The Times*, in online copy at <http://www.timesonline.co.uk/tol/news/politics/article4136791.ece>, accessed 23 January 2010.
- ¹³ David Jordan, "Countering Insurgency from the Air: The Postwar Lessons." *Contemporary Security Policy* 28, no. 1 (April 2007), 108.
- ¹⁴ Harry Kemsley, "Air power in Counter-Insurgency: A Sophisticated Language or Blunt Expression?" in *Dimensions of Counter-insurgency*, eds. Tim Benbow and Rod Thornton (Abingdon: Routledge, 2008), 111.
- ¹⁵ North Atlantic Treaty Organisation. Headquarters International Security Assistance Force, *Tactical Directive* (Kabul, 2008), 2 in online copy at http://www.nato.int/isaf/docu/official_texts/Tactical%20Directive_090114.pdf, accessed 23 January 2010.
- ¹⁶ Julian Paget, *Counter-Insurgency Campaigning* (London: Faber and Faber, 1967), 159.
- ¹⁷ Ritchie, "RAF Counter-Insurgency Operations", 69.

- ¹⁸ Mockaitis, *British counterinsurgency in the post-imperial era*, 57-58.
- ¹⁹ Mark Urban, "How to win in Helmand." BBC Newsnight, in online copy at http://www.bbc.co.uk/blogs/newsnight/markurban/2008/06/how_to_win_helmand.html, accessed 23 January 2010.
- ²⁰ Mockaitis, *British counterinsurgency in the post-imperial era*, 64.
- ²¹ Corum and Johnson, *Airpower in Small Wars*, 216.
- ²² Malcolm Postgate, *Operation Firedog*, 36.
- ²³ Peterson, Reinhardt and Conger, eds, *Symposium on the Role of Airpower*, 72.
- ²⁴ Philip Towle, *Pilots and Rebels* (London: Brassey's Ltd., 1989), 95.
- ²⁵ Walker, "Borneo", 9.
- ²⁶ Paget, *Last Post: Aden 1964-67*, 104.
- ²⁷ Walker, "Borneo", 7.
- ²⁸ Paget, *Last Post: Aden 1964-67*, 60.
- ²⁹ United Kingdom. National Audit Office, *Support to High Intensity Operations* (London: The Stationery Office, 2009), 17.
- ³⁰ Towle, *Pilots and Rebels*, 148.
- ³¹ *ibid.*, 137/139.
- ³² United Kingdom. National Audit Office, *Hercules C-130 Tactical Fixed Wing Airlift Capability* (London: The Stationery Office, 2008), 14.
- ³³ Towle, *Pilots and Rebels*, 91.
- ³⁴ *ibid.*, 90.
- ³⁵ Ministry of Defence, "RAF helps Afghan pilgrims get to Mecca." Ministry of Defence, in online copy at http://www.operations.mod.uk/afghanistan/newsItem_id=1472.htm, accessed 23 January 2010.
- ³⁶ Roger Annett, *Drop Zone Borneo* (Barnsley: Pen and Sword Aviation, 2006), 142.
- ³⁷ Walker, "Borneo", 8.
- ³⁸ Corum and Johnson, *Airpower in Small Wars*, 207.
- ³⁹ Towle, *Pilots and Rebels*, 92.
- ⁴⁰ Jordan, "Countering Insurgency from the Air", 99.
- ⁴¹ Postgate, *Operation Firedog*, 107.
- ⁴² Bruce Hoffman, *British Air Power in Peripheral Conflict, 1919-76* (Santa Monica: RAND, 1989), 105.
- ⁴³ Jordan, "Countering Insurgency from the Air", 99.
- ⁴⁴ Paget, *Counter-Insurgency Campaigning*, 163-164.
- ⁴⁵ United States of America. U.S. Army/Marine Corps Counterinsurgency Field Manual (USA: The University of Chicago Press, 2007), 365.
- ⁴⁶ Postgate, *Operation Firedog*, 124.
- ⁴⁷ *ibid.*, 134
- ⁴⁸ Hoffman, *British Air Power in Peripheral Conflict, 1919-76*, 106.
- ⁴⁹ Thomas Harding, "Terrorists 'use Google maps to hit UK troops'." The Daily Telegraph, in online copy at <http://www.telegraph.co.uk/expat/expatresources/4202583/Terrorists-use-Google-maps-to-hit-UK-troops.html>, accessed 23 January 2010.
- ⁵⁰ Peterson, Reinhardt and Conger, eds, *Symposium on the Role of Airpower*, 76.
- ⁵¹ Postgate, *Operation Firedog*, 129.
- ⁵² *ibid.*, 134.
- ⁵³ *ibid.*, 130.
- ⁵⁴ Hoffman, *British Air Power in Peripheral Conflict, 1919-76*, 96.
- ⁵⁵ National Audit Office, *Support to High Intensity Operations*, 17.
- ⁵⁶ Bryan Hunt, "Air Power and Psychological Warfare Operations Malaya 1948-1960." *Air Power Review* 11, no. 1 (Spring 2008), 14.
- ⁵⁷ *ibid.*, 16.
- ⁵⁸ Postgate, *Operation Firedog*, 122.
- ⁵⁹ Hoffman, *British Air Power in Peripheral Conflict, 1919-76*, 93.
- ⁶⁰ United Kingdom. House of Commons Defence Committee, *UK Operations in Afghanistan* (London: The

Stationery Office, 2007), 42.

⁶¹ Hunt, "Air Power and Psychological Warfare Operations", 12.

⁶² Hoffman, *British Air Power in Peripheral Conflict, 1919-76*, 106.

⁶³ Corum and Johnson, *Airpower in Small Wars*: 218.

This article has been republished online with Open Access.

Ministry of Defence © Crown Copyright 2023. The full printed text of this article is licensed under the Open Government Licence v3.0. To view this licence, visit <https://www.nationalarchives.gov.uk/doc/open-government-licence/>. Where we have identified any third-party copyright information or otherwise reserved rights, you will need to obtain permission from the copyright holders concerned. For all other imagery and graphics in this article, or for any other enquires regarding this publication, please contact: Director of Defence Studies (RAF), Cormorant Building (Room 119), Shrivenham, Swindon, Wiltshire SN6 8LA.

 **ROYAL
AIR FORCE**
**Centre for Air and
Space Power Studies**

OGL