

## WHAT ARE THE LESSONS FROM USING AIRPOWER IN COUNTERINSURGENCIES?

BY

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**WHAT ARE THE LESSONS FROM USING AIRPOWER IN  
COUNTERINSURGENCIES?**

by

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## **ABSTRACT**

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The United States Air Force has had monumental success in applying airpower against conventional enemies, but now finds itself in a different kind of fight, fighting a different kind of enemy—that of insurgents. As the United States (US) plans to leave Iraq by 31 December 2011 and the North Atlantic Treaty Organization (NATO) plans to leave Afghanistan by 2014, airpower leaders must consider past lessons from employment of airpower in counterinsurgencies. Specific actions worth studying include Great Britain and the Malayan Emergency, France and the Algerian War of Independence, US and the Vietnam War, Soviet Union and the invasion of Afghanistan, Israel and the war in Lebanon, US and its allies in Operation ENDURING FREEDOM, and US and its allies in Operation IRAQI FREEDOM. All of these counterinsurgencies provide valuable lessons that, when applied to the entire spectrum of operations, will ensure airpower dominance well into the future.



## WHAT ARE THE LESSONS FROM USING AIRPOWER IN COUNTERINSURGENCIES?

In this type of war ... the task is to destroy the effectiveness of the insurgent's efforts and his ability to use the population for his own ends.  
—General Curtis E. Lemay<sup>1</sup>

“Employed properly, airpower ... produces asymmetric advantages that can be effectively leveraged by joint force commanders in virtually every aspect of irregular warfare.”<sup>2</sup> The United States Air Force (USAF), since its inception in 1947, has had monumental success in applying airpower against conventional enemies, but now finds itself in a different kind of fight, fighting a different kind of enemy—that of insurgents. Modern air forces can learn a great deal from the positive and negative lessons from employing airpower in counterinsurgency operations since World War II.

The United States (US) is presently fighting two counterinsurgencies, in Iraq and Afghanistan. As the US plans to leave Iraq by 31 December 2011 and the North Atlantic Treaty Organization (NATO) plans to leave Afghanistan by 2014, the US will continue employing airpower in completing the final phase of these counterinsurgencies. While planning redeployment actions, airpower leaders must consider past lessons from employment of airpower in counterinsurgencies. They must also ensure current lessons are captured to shape the use of airpower in all phases of any future counterinsurgency.

To remain relevant in the future, “the USAF must determine how modern airpower can successfully engage an irregular opponent.”<sup>3</sup> Studying use of airpower in past counterinsurgencies will help make those determinations. Counterinsurgencies involving airpower are easily grouped into three eras—Decolonization (from the end of World War II to the early 1960s), the Cold War (early 1960s to the late 1990s), and

Post-9/11 (after the 11 September 2001 terrorist attack in the US). Each era has lessons stemming from national interests and technology of the time.

Some of the lessons are unique to an era, but many are timeless and worth considering today and in the future. Specific actions worth studying include Great Britain and the Malayan Emergency, France and the Algerian War of Independence, US and the Vietnam War, Soviet Union and the invasion of Afghanistan, Israel and the war in Lebanon, US and its allies in Operation ENDURING FREEDOM (OEF), and US and its allies in Operation IRAQI FREEDOM (OIF). The USAF can directly apply lessons from past and current counterinsurgency eras as it shapes the development of airpower in the future.

#### Airpower in Decolonization Counterinsurgencies

The first Decolonization era counterinsurgency worth examining took place on the Malay Peninsula. Great Britain first took control of the lower portion of the Malay Peninsula in the late 1700s to secure its interests in the region and safeguard the vital Strait of Malacca. Countries in the region enjoyed a prosperous and lasting relationship with Britain until communist insurgency threatened British authority in Malaya after World War II.<sup>4</sup> Known as the Malayan Emergency, this insurgency lasted from June 1948 to July 1960. Airpower would prove to have a central role in Britain's strategy to defeat the insurgency.

The British could not have ended the Malayan Emergency without airpower; however, "airpower in its more orthodox role of air superiority and strategic attack was not required in Malaya. Consequently, air action during the Emergency fell into two broad categories: 'direct action' and 'indirect action.'"<sup>5</sup> Examples of direct action include Royal Air Force (RAF) squadrons attacking guerrilla hideouts with rockets and

gunfire. They also bombed known concentrations of enemy forces and interdicted enemy lines of supply. Jungle canopies and fleeting targets limited the effectiveness of direct action. This was not the case with indirect action.

Indirect action in Malaya was so important, RAF operations were prioritized accordingly. Aerial resupply and airborne insertion of troops such as Special Air Service commandoes “were described almost universally as the most effective counterinsurgency use of airpower in Malaya.”<sup>6</sup> British forces also used coalition support from Australia, New Zealand, and Borneo to build Malayan national police, army, and air forces.<sup>7</sup> Psychological operations included “leaflet dropping and aircraft broadcasting propaganda—known as ‘sky shouting.’”<sup>8</sup> It is interesting to note the phrase “hearts and minds,” often used during counterinsurgency actions in OIF, originated during the Malayan Emergency. Clearly the US learned several positive lessons from this successful application of airpower in defeating insurgencies; the lessons are apparent in US Army Field Manual 3-24, Counterinsurgency, which has an appendix specifically addressing airpower and in General Petraeus’ post-surge Iraq.

The Malayan Emergency is an exception; airpower usually does not defeat insurgencies. Such was the case in the Algerian War of Independence; the second Decolonization era counterinsurgency that merits study. “Algeria was the crown jewel of the French colonial empire.”<sup>9</sup> In reality, Algeria was more than a colony to France; it was a “department” of France. Millions of French people lived in Algeria, and French Algerians had representation in the French National Assembly. The issue for the millions of Arab Algerians was they had little influence over their own country.<sup>10</sup> Their unrest grew after World War II and France’s Indochina war.

Although France made promises of reform to address the Arab unrest, the reform was blocked by those French living in Algeria. Adding fuel to the fire was the great disparity in living standards between the ethnic groups living in Algeria. Victory over Europe celebrations in 1945 sparked massive anti-French riots and the massacre of one hundred French. French military and police retaliation left 6,000 Arab dead.<sup>11</sup> The few reforms following this event did little to satisfy the Arab Algerians. In 1954, Algerian Nationalists formed a party to organize guerrilla forces to force France out of their country.<sup>12</sup> Within a year, France found itself fighting a full-blown counterinsurgency.

The French counterinsurgency included a large air force, providing troop transit, reconnaissance, and ground attack capabilities. The French Air Force provided a powerful psychological advantage as the Arab Algerians had little capability to defeat them; in addition to leaflet dropping, pilots could attack with impunity and often did, dropping napalm on mountain villages known to harbor guerrilla sympathizers.<sup>13</sup> Unfortunately, this tactic ultimately backfired for the French.

Former Algerian guerrilla Zohra Drif, interviewed in the documentary *Remembering History* (about the events portrayed in Italian director Gillo Pontecorvo's seminal movie, *The Battle of Algiers*), spoke of escalating guerrilla attacks against the French in response to indiscriminate bombing. In what became known as the Battle of Algiers, the guerrillas began bombing civilian targets throughout the French sections of the city Algiers.<sup>14</sup> While the French won the Battle of Algiers, they ultimately lost the war. "A determined people motivated by nationalism and armed with little more than patience and a willingness to die in large numbers can win against a well-led and armed

modern military force supported by the latest technology and plenty of airpower.”<sup>15</sup> This is a lesson the US and Soviet Union would relearn in Vietnam and Afghanistan.

The main lessons from Decolonization era counterinsurgencies are the value of direct attack, airlift, and psychological operations. Also important was the negative impact of indiscriminate bombing and attacking civilian targets. The US could have benefited from these lessons in the first counterinsurgency case of the Cold War era—the US entered Vietnam with the goal of preserving a democratic South Vietnam and limiting the spread of communism.

### Airpower in Cold War Counterinsurgencies

The US remained neutral in the early years of France’s Indochina war, but that would not last. The US entered Vietnam in 1950, sending a small Military Assistance and Advisory Group to screen French requests for aid, assist training Vietnamese soldiers, and to provide strategy advice.<sup>16</sup> By 1952, the US was funding one-third of the war’s costs and was providing “large quantities of arms and ammunition, naval vessels, aircraft, and military vehicles.”<sup>17</sup> From the first US presence in Vietnam to the evacuation of the US Embassy in Saigon in April 1975, the insurgency spanned six US presidencies.<sup>18</sup>

US Presidents and their administrations had many different strategies during this period: advise and support, limited war, airbase defense, enclave, search and destroy, Demographic Frontier, pacification, Vietnamization, and return to peace talks.<sup>19</sup> Air power played a vital counterinsurgency role in most every one of these strategies.<sup>20</sup>

Limited war in Vietnam meant gradual air counterinsurgency operations against the enemy in an attempt to coerce them to US will. This idea was the central focus of the aerial offense against North Vietnam called ROLLING THUNDER. Begun in

February 1965, initially the effort was intended to show North Vietnam the US was getting resolute about North Vietnamese aggression and wanted it stopped. Later, the objective of ROLLING THUNDER was to punish North Vietnam to the point it stopped its invasion of South Vietnam.<sup>21</sup> In reality, ROLLING THUNDER accomplished neither objective. In fact, it sent a message to Ho Chi Minh that the US was not serious about stopping North Vietnamese aggression. By the time the US escalated ROLLING THUNDER, North Vietnam had developed effective defenses by spreading out equipment and bases and establishing anti-air capabilities. The only thing ROLLING THUNDER did accomplish was “to create several years of bitter disputes between the military and civilian elements of the US government who had opposing and irreconcilable views as to the objectives of the program and how it ought to be carried out.”<sup>22</sup> Another devastating consequence of ROLLING THUNDER sorties was the use of Agent Orange to defoliate areas around air bases supporting operations; this was part of the next US strategy, air base defense.

Out of concern for the defense of air bases in South Vietnam, “President Johnson approved the dispatch of ... two marine battalions” to guard the Da Nang base.<sup>23</sup> Johnson later changed the Marines’ mission to address worsening of the military situation in the south, allowing more active and offensive roles in theater. Two additional capabilities grew out of the desire for better defense of air bases. First was the use of airpower to spray the herbicide Agent Orange to defoliate jungle and forest areas surrounding bases. “C-123 RANCHHAND crews ... sprayed more than 100 million pounds ... over millions of acres.”<sup>24</sup> While meeting short-term objectives of defoliation, the long-term effects from Agent Orange were devastating, “destroying an

estimated one-half of South Vietnam's timberlands and leaving horrendous human and ecological costs."<sup>25</sup>

Another capability that grew out of the need for air base defense was the development and fielding of the AC-47 Gunship I. This modified cargo aircraft provided concentrated firepower with devastating effects. The enemy so feared the aircraft, they often broke contact as soon as the AC-47 crews began illuminating an area with its flares. The AC-47 significantly decreased the enemy's ability to fight at night in locations it operated.<sup>26</sup> The highly successful AC-47 led to development of the AC-130 Gunship II, also employed in South Vietnam. A high-level Office of the Secretary of Defense (OSD) meeting to discuss air base defense and the continued use of marines for offensive operations led to the next strategy, enclave.

Airpower did not have a significant role in the enclave strategy except for the failure of ROLLING THUNDER to achieve its goals. Without ROLLING THUNDER punishing the enemy in the north, the enclave concept (placing enclaves of US forces around coastal areas for defense, but also permitting support of nearby Army of the Republic of Vietnam (ARVN) troops and nearby US-only operations) could not deny an enemy victory in the south. More importantly, this application of force was better suited to insurgencies and less so for conventional war, which is what Vietnam headed towards in the late 1960s.<sup>27</sup> The unsuitability of enclave operations led to yet another strategy, one of search and destroy.

Search and destroy would dictate ground operations from 1965 to 1968. With authority and troop strength, General Westmoreland was finally able to conduct offensive operations as he saw fit. With increased ground operations came the need for

Close Air Support (CAS). Out of this need were born Misty Forward Air Controllers (FACs). In response to loss of slower observer aircraft due to ever-increasing surface-to-air-missile (SAM) threats, the Seventh Air Force commander “approved a test program to place FACs into the rear seat of fighter aircraft. Their higher speed ... allowed fighters to operate in high-threat areas. ... Under the call sign of ‘Misty,’ these fast FACs became known as ‘Misty FACs.’”<sup>28</sup> The Misty mission was interdiction, suppression of enemy air defenses, and enabling reconnaissance and FAC operations.<sup>29</sup> It was extremely dangerous work, yet highly successful. Misty FACs proved invaluable for their knowledge of enemy terrain and defenses, even supporting combat search and rescue operations as well as naval strike operations.<sup>30</sup> Perhaps the most famous Misty FAC is Medal of Honor recipient Colonel (ret) George “Bud” Day. While General Westmoreland’s search and destroy ground operations supported by Misty FACs gained tremendous tactical advantages, they still did not achieve the strategic advantages desired by the US. The tactical success of the missions in the north, however, did cause North Vietnam to push into South Vietnam which in turn led to the next US strategy, the Demographic Frontier.

The Demographic Frontier strategy was nothing more than the enclave strategy on a grander scale. A group of OSD civilians proposed identifying a region of South Vietnam that the ARVN and US would defend, leaving the rest of the country to the Viet Cong. The military so objected to the strategy, it was never even suggested to President Johnson.<sup>31</sup> There are no airpower-specific lessons from this strategy other than to highlight the US in Vietnam continued to struggle to find an appropriate use of its military force to achieve its strategic objectives. The same Viet Cong successes from

the Tet Offensive that caused the US to consider the Demographic Frontier strategy led to the strategy of pacification.

In implementing the pacification strategy, General Abrams used ground forces to protect the South Vietnamese and disrupt enemy preparations for even the smallest skirmishes. From this perspective, the strategy was very successful, but it did have its disadvantages. The nature of the warfare pushed the Viet Cong back into an insurgency, which limited US technology and firepower advantages. It extended the war, further eroding domestic support just as President Johnson was considering re-election.<sup>32</sup> In an attempt to further peace negotiations, the US stopped all bombing in the north.<sup>33</sup> Again, mixed messages were received by the enemy as the US stopped using one of its most capable coercive instruments, airpower. After his inauguration, President Nixon started planning his strategy to get the US out of Vietnam with honor. His strategy was Vietnamization.

Vietnamization was about getting South Vietnam to a point it could govern and protect itself after the US had left the region. Unfortunately, President Nixon chose an approach to the strategy that merely worsened conditions resulting from President Johnson's pacification strategy. The Nixon strategy entailed US forces protecting South Vietnam while vastly, yet slowly, increasing the ARVN's ability to protect their country. The strategy "...surrendered ... military advantages ...; failed to use US strength against enemy weakness; it surrendered the initiative to the enemy; its prolongation of the war played to the enemy's strategy of revolutionary and protracted war; [and] it would do nothing to erode North Vietnam's war-making capacity."<sup>34</sup> In short, President

Nixon repeated President Johnson's mistakes of ignoring the strengths of airpower. The final strategy did not repeat this mistake.

The US intended to force North Vietnam to return to peace talks with its final strategy. An all-out aerial bombardment against North Vietnam started in December 1972. Called the "Christmas Bombings" by the US media, LINEBACKER II left North Vietnam's military potential, industry, and economy in ruins. It destroyed North Vietnam's ability to defend itself or use its airfields. "For the first time, it seized the initiative from the enemy. It utilized ... [US] strength (air power) against enemy weakness. And above all, it worked."<sup>35</sup> While this strategy ultimately led to a peace negotiation, it was not with honor as President Nixon had hoped. Even with this final, appropriate use of airpower, the US left Vietnam defeated. Some of the most famous images from the Vietnam War depict the final role of airpower in the conflict—the airlift evacuation of noncombatants from the US embassy in Saigon.

Just as the US abandoned Vietnam, the Soviet Union would abandon Afghanistan; the Soviet invasion of Afghanistan is the second Cold War era counterinsurgency with lessons for today's airpower leaders. "On 27 April 1978, Afghan Communists launched a successful coup intended to transform Afghanistan from a diverse tribal society into a unified Communist state."<sup>36</sup> The new government's attacks on landowners, religious leaders, and tribal elders merely reinforced Afghani trends to resist any form of central government. In spite of increasing Soviet aid, it appeared in late 1979 that the Afghan communist government would fail.<sup>37</sup>

The Soviet Union could not stand a communist state failing on its border; in a sense, this was their Domino Theory. The Soviets were particularly concerned with

Muslim regions in their own country such as Chechnya which continues to be a problem for Russia today. The Soviets invaded Afghanistan in 1979 and used heavy-handed tactics to fight resistance. This worked until the Soviets tried to secure large population areas where Afghan fighters simply returned to the mountains where tanks could not travel. Once the Soviets left, the Afghans would return to the villages and kill any Soviet sympathizers. The Soviets were also fighting negative world opinion enabled by greater media access of the time.<sup>38</sup> The Soviets soon found themselves embroiled in a large-scale, drawn-out counterinsurgency.

As pressure on the Soviet Union increased, it turned to airpower to defeat the Afghan insurgency. "Soviet strategy ... placed emphasis on attacking ... civilian populations from which the ... [insurgents] drew support, and this led to the deployment of ... weapons systems such as the MI-24 Hind helicopter gunship, and the MiG-23 Flogger and Su-25 Frogfoot fighter-bombers."<sup>39</sup> However, as Soviet tactics relied more and more on airpower, the US began providing Stinger SAMs to the insurgents. Although the Soviets changed their tactics (including flying at night as the Stinger was a day-only weapon system), the loss of aircraft shot down by insurgents did play a part in the Soviet's eventual retreat from Afghanistan.<sup>40</sup> The Soviets also employed MiG-27 Floggers to protect departing convoys and harass nearby insurgents as they left Afghanistan.<sup>41</sup>

Just as the Soviets fought an extended insurgency in Afghanistan, Israel did the same in Lebanon. This is the third Cold War era counterinsurgency with important lessons. Following the 1948 Arab Israeli war, peace agreements arbitrated by the United Nations defined boundaries that closely matched international boundaries

between Lebanon and Palestine. Over the next four decades, Israel would fight many battles and wars that expanded the land they occupied. Displaced Palestinians settled in south Lebanon. Growing unrest led to heightened border tensions between Israel, Lebanon, and Palestine characterized by guerrilla attacks from various factions who wanted Israel out of the region.<sup>42</sup>

In response to these attacks, the Israel Defense Force invaded Lebanon in 1982; its purpose was to secure a buffer zone between their country and those attacking them. This occupation would last eighteen years.<sup>43</sup> In an attempt to further promote peace in the region, Israel unilaterally withdrew from the buffer zone in 2000. They would return six years later in response to Hezbollah attacks in Israel. The Israeli Air Force (IAF) would have a critical role in this extended counterinsurgency.

Israel freely uses its airpower might any time its interests are threatened by other countries or insurgents. They demonstrated this in the early 1980s when the IAF bombed a nuclear research center near Baghdad and again by attacking the Palestinian Liberation Organization (PLO) headquarters in retaliation for the PLO killing three Israelis in Cyprus. “The attacks confirmed the regional dominance of the IAF, while also reinforcing Israel’s policy of deterrence. In recent years, because of the shift to low-intensity operations by its enemies, the IAF has used helicopters to conduct targeted assassinations...”<sup>44</sup> Even with these tactics, Israel would ultimately leave Lebanon in 2000, the last of the Cold War era counterinsurgencies—all unsuccessful, protracted wars.

Cold War era counterinsurgencies definitely shaped future warfare, particularly technological improvements in, and the employment of, airpower. Lessons included the

uselessness of limited or gradual bombing while at the same time the tremendous impact from CAS platforms. Israel demonstrated the value of direct attack that the British used so successfully in Malaya. The Soviet Union repeated French mistakes with the indiscriminate bombing and harassing of civilian targets in Afghanistan. The first Post-9/11 era counterinsurgency also takes place in Afghanistan.

### Airpower in Post-9/11 Counterinsurgencies

US and United Kingdom (UK) forces invaded Afghanistan in support of OEF after Taliban leaders there refused to close terrorist training camps and hand over Osama bin Laden and others responsible for the attacks against the US on 11 September 2001. From the outset, OEF would be a counterinsurgency. The rugged terrain of Afghanistan alone would make airpower critical.

The earliest role of airpower in OEF was both traditional and non-traditional. From dropping GBU-28 bunker-busters and BLU-118 thermobaric bombs to defeat insurgents hiding in caves to air supplying horse blankets and feed to Special Forces fighting on horseback alongside Northern Alliance resistance fighters, the Air Force was critical to the fight. USAF Remotely Piloted Aircraft (RPAs) also provided valuable situational awareness of the OEF battle space.<sup>45</sup>

In addition to USAF units operating RPAs in Afghanistan, the Central Intelligence Agency (CIA) also operated them in areas near the Pakistan border. In a firefight on top of Takur Ghar mountain (later known as Roberts Ridge, named after the Army Ranger who died in the battle) in March 2002, CIA operators fired a Hellfire missile at an insurgent machine gun bunker that had pinned down an Army Ranger team that had crash-landed on the mountaintop. It would be the first known instance of an MQ-1

Hellfire fired in a CAS role, one that would be repeated many times over in OIF and OEF.<sup>46</sup>

With the advent of precision guided munitions, non-traditional aircraft like B-1s and B-52s could also provide CAS in OEF. This was in addition to aircraft like A-10s, AV-8s, F-16s, F-15s, and F-18s that traditionally support ground combat forces. Even in the mountainous regions of Afghanistan, collateral damage remained a concern. The USAF was already developing a 250-pound weapon, the GBU-39 Small Diameter Bomb (SDB), to provide low-collateral damage, high-precision capabilities for the future Joint Strike Fighter. Realizing the benefits of this kind of weapon to the ongoing counterinsurgency, the Air Armament Center developed a modified SDB called the Focused Lethality Munition (FLM). This carbon-fiber cased warhead used a low explosive fill to defeat soft targets while maintaining a small blast radius and minimizing damage to structures. Unfortunately, the flight characteristics of the weapon made it unresponsive in danger close situations, so it was rarely used in combat. Its technology, however, would prove useful later in OEF.

Technology would be used to address rule of engagement (ROE) limitations placed on coalition forces in 2009. After several high-profile incidents where civilians were either incorrectly targeted or injured as a result of collateral damage, General McCrystal said, “he would review all rules of engagement, limit airstrikes and use more small ground units in search and detention operations.”<sup>47</sup> Once again, the strength of airpower was being limited by policy. In response to a Central Command (CENTCOM) Joint Urgent Operational Need, the Air Armament Center revisited its FLM technology with the goal of developing another low-collateral damage weapon, which also

maintains the flight characteristics of the highly-successful Joint Direct Attack Munition (JDAM). The USAF is now developing a precision lethality BLU-129. It will also be manufactured with a carbon fiber casing and low explosive fill; its 500-pound warhead will be mated with Global Position System kits to provide an overpressure kill against soft targets while minimizing blast effects. The effects will be greater than those of the FLM, but less than a traditional JDAM. The success of this low-collateral damage weapon will be a direct result of lessons from earlier technologies and airpower tactics developed while fighting a counterinsurgency.<sup>48</sup> The US would soon have another opportunity to apply airpower; this time in Iraq, location of the second Post-9/11 era counterinsurgency.

OIF began in March 2003 with the US and UK invasion of Iraq. This was in response to Iraq's refusal to cooperate with UN Security Council resolution 1441 to verify it was not in possession of weapons of mass destruction (WMDs). US and UK leaders asserted Iraq did indeed have WMDs, which threatened their security and that of regional coalition allies. The rationale for invading Iraq would later prove suspect, but by then, the US had toppled Saddam Hussein's regime and was well-entrenched in Iraq trying to support its fledgling government.

Coalition airpower quickly gained air supremacy in the Iraq invasion as the war started with a massive "Shock and Awe" bombardment intended to decapitate the enemy leadership and leave its military forces in disarray. Despite early military successes (evidenced by the rapid assault and occupation of the city of Baghdad enabled by "unprecedented integration of the various services to create joint effects in the design and conduct of the campaign"<sup>49</sup>), the US quickly found itself fighting a multi-

front counterinsurgency while trying to keep the new Iraq out of a civil war. Not only was the US fighting minority ethnic groups using guerrilla tactics to gain power, they were also fighting Al Qaeda operatives taking advantage of the situation in Iraq. Airpower once again would play a critical role in the counterinsurgency.

Even with precision guided munitions and precision targeting, collateral damage and civilian casualties limited conventional uses of airpower. As the counterinsurgency grew, airpower's role changed to support its changing mission. Improvised explosive devices (IEDs) were a major threat to ground forces. EC-130 Compass Call aircraft utilizing Special Purpose Emitter Array pods were able to jam or safely activate radio frequency controlled IED trigger devices. EC-130 aircrews flew over 23,000 combat hours in six and one-half years in direct support of OIF.<sup>50</sup> Another IED defeat capability relied on persistent surveillance and full-motion video (FMV) for real time situational awareness.

The best source of FMV during OIF was provided by the MQ-1 Predator RPA. This medium altitude, long endurance aircraft could provide armed reconnaissance while loitering over a target area of interest considerably longer than a pilot in a cockpit could endure. Early in OIF, the Air Force provided ten MQ-1 combat air patrols (CAPs) to the Joint Forces Air Component Commander. One MQ-1 CAP provided twenty-four hours of loiter time over a target. The quiet turbo-prop engine and operating altitude made the Predators hard to detect by insurgents. Sensor operators could watch IEDs being emplaced and could relay that information directly to ground forces or to the Predator pilot to attack with a Hellfire missile if the aircraft was so armed. As technologies such as Remotely Operated Video Enhanced Receivers put FMV in the

hands of soldiers on the ground, commanders could not get enough RPA assets to meet their demands.

The issue of available FMV quickly became a point of contention between the USAF and the Army. The Army felt the USAF was not responsive to its needs and created its own capability, Task Force Odin, to address FMV shortfalls. The USAF wanted executive agency, giving budgetary and operational control, of all medium altitude RPAs. The two services fought a small battle inside the Pentagon from spring of 2007 to spring of 2008, arguing over funding and use of these force-multiplying aircraft. The Army and OSD argued the USAF was spending too much money on fighter aircraft like the F-22 (preparing for the future wars it would fight) and not on the fight at hand—counterinsurgencies in the Middle East. This issue finally came to a head during Secretary of Defense Robert Gates' 21 April 2008 speech to the Air War College.

During Secretary Gates' speech to the Air War College, he addressed challenges the Air Force would face in the future. He directed, "...as future leaders of air power, you should consider whether there is more the service might do to articulate and codify the unique role of airpower in stability operations."<sup>51</sup> He stated, "... [his] concern is that our services are still not moving aggressively in wartime to provide resources needed now on the battlefield."<sup>52</sup> In direct support of his concerns, Secretary Gates stopped additional production of the F-22, added funds for additional intelligence, surveillance, and reconnaissance (ISR) assets, and established a department-wide task force to address ISR shortfalls in theater. In addition to doubling RPA CAPs in less than one

year, his task force led to the fielding of one of the greatest counterinsurgency capabilities in modern warfare, the MC-12 Liberty.

The MC-12 Liberty is a special mission aircraft; it is flown by a four-person crew including an electro-optical sensor operator and a signals intelligence analyst. The system provides real-time information support directly to ground forces. The Air Force's Big Safari program office developed and fielded the initial operational capability (IOC) in less than one year. Combat operations in Iraq began in June 2009 and the 30<sup>th</sup> and final aircraft was delivered to the CENTCOM area of responsibility in July 2010. Since IOC, the MC-12 fleet has flown over 5,000 combat sorties providing more than 22,000 hours of FMV, supporting the capture of hundreds of insurgents and discovery of weapons caches and IEDs in Iraq and Afghanistan.<sup>53</sup> Afghanistan is not the only country to see fighting in multiple counterinsurgency eras. The last Post-9/11 era case is Israel's return to Lebanon.

During its 2006 re-invasion of Lebanon, Israel primarily used its Air Force to defeat Hezbollah's ability to launch rockets as well as to attack organizational and infrastructure targets.<sup>54</sup> RPAs also had a prominent role in this short operation; they were used by both sides for reconnaissance collection and targeting. Israel was also effective in modifying its radar systems to enable targeting of the low-profile, stealthy RPAs.<sup>55</sup> After causing considerable destruction and displacing hundreds of thousands of Israelis and Lebanese, Israel withdrew from Lebanon without defeating Hezbollah.

Israel reviewed their lack of success in 2006 with a very critical eye towards airpower. Lessons learned indicated a decline in its military's ability to conduct joint operations. In some cases, combat brigades no longer had tactical air parties

integrated with them.<sup>56</sup> “A look at the historical use of conventional military power against an asymmetric and diffused adversary shows that it is not only air power, but military forces as a whole that are ineffective in this unconventional environment.”<sup>57</sup>

This is a lesson the US was learning at the same time in OIF, one that would lead to General Petraeus’ surge and focus on training for counterinsurgency operations.

Realizing it needs to train its people in counterinsurgency as well as develop technologies and tactics, the USAF is finally putting appropriate focus on this mission. In 2007, the USAF published counterinsurgency specific doctrine, Air Force Doctrine Document 2-3, Irregular Warfare (AFDD 2-3). It was written using lessons from OIF and OEF. It describes how Airmen will employ airpower in a joint counterinsurgency and fits well with the Army’s FM 3-24 and Joint Publication 3-24, Counterinsurgency Operations. AFDD 2-3 also describes airpower roles and missions during counterinsurgencies. The USAF must focus on training and strategic communications supporting these updated roles and missions.

One particular role that will be vital is like the Army’s Civil Affairs specialty. Currently, a small percentage of the USAF is trained in this mission and these Battlefield Airmen are part of the Air Force Special Operations Command. Their low-density/high-demand tasking makes them too valuable an asset to use in everyday operations. “By bolstering its aviation advisors and security forces, and creating its own cadre of civil affairs Airmen, the USAF can most significantly improve its effectiveness in counterinsurgencies.”<sup>58</sup>

Aviation advisors already play an extremely important role in OIF and OEF. The Coalition Air Force Transition Teams in Iraq and the Combined Air Power Transition

Force in Afghanistan are helping rebuild Iraqi and Afghani air forces—equipping their forces, improving airfields, supporting current operations, and training their personnel.<sup>59</sup> These missions will likely continue at the invitation of Iraq and Afghanistan well after combat units have left those countries. In time, these strategic partners will have airpower forces of their own able to protect their own countries, fight counterinsurgencies, and be valuable participants in, and hosts of, coalition training exercises. Ideally Iraq and Afghanistan will be the last of the Post-9/11 era counterinsurgencies, and it will be some time before the US needs to apply the lessons from this era.

Post-9/11 era counterinsurgencies employed airpower in ways that benefited from past eras' lessons. In cases like Afghanistan where ROEs limited airpower, technology was improved and tactics changed to address collateral damage concerns. RPAs were used in situations that were deadly, dull, or dangerous—keeping the pilot and sensor operators out of harm's way. RPAs also provided invaluable situational awareness to commanders on the ground. Doctrine and training are finally being developed to better prepare Airmen for supporting counterinsurgencies.

While developing new doctrine and training, it is important to recognize very little literature discusses the use of airpower (in roles other than airlift) during redeployment following counterinsurgencies. Research only found the anecdote of airpower harassing insurgents and protecting convoys while the Soviet army redeployed. As the US leaves Iraq and Afghanistan, it will be critical for airpower leaders to capture their lessons from this phase for use by future generations in later conflicts.

In examining the cases of airpower's use in a counterinsurgency, the main lessons for today's and tomorrow's airpower leaders are to use airpower for: direct attack and CAS, psychological operations, bombing unlimited by ROE (or changing technology and tactics to address ROE limitations), persistent surveillance, and advice. Direct attack, specifically using precision munitions like Hellfire and laser JDAMs, gives commanders a capability to surgically strike insurgents while causing minimal collateral damage. As long as ground forces are in combat, CAS platforms will be required to protect friendly forces in contact. Psychological operations like media broadcast and leaflet dropping require airpower for localized delivery over target areas. Counterinsurgencies often require winning the hearts and minds of the local populace. This cannot be done if civilians are suffering from collateral damage, however airpower advocates should push to restrict bombing ROE limitations because of *overly* conservative collateral damage concerns. When ROE limitations cannot be avoided, airpower should employ novel technological developments or change tactics to maximize airpower's effectiveness. Situational awareness is critical to commanders and all forces in theater. Sufficient ISR assets providing persistent, real-time FMV and signals intelligence must be fielded to meet Joint Force, Joint Force Air Component, and Joint Force Land Component Commanders' requirements. Budget and personnel to meet these requirements must be balanced against other defense priorities. Finally, airpower advocates must continue developing counterinsurgency doctrine and using that doctrine to train Airmen in advisory positions to relieve low density/high demand special operations personnel who traditionally fill those roles. Applying these lessons in

redeployment from Iraq and Afghanistan as well as in future counterinsurgencies will ensure airpower is employed to its maximum effectiveness in these kinds of operations.

The USAF in recent years has finally recognized the difference in applying airpower in counterinsurgency operations. While still repeating some mistakes from the past, these instances are becoming rarer. Current USAF leadership is responding to OSD demands, joint force needs, and mission realities; recent budget, development, doctrine, and training reflect the changing nature of war and airpower.

“Modern airpower requires an inward focus to operate technologically advanced air and space assets, but irregular warfare calls for an outward perspective that identifies the true nature of an irregular opponent. The paradox of irregular airpower requires today’s USAF to expand its horizons ... if it wishes to successfully engage the enemies of tomorrow.”<sup>60</sup> With this outward perspective gained from valuable lessons from the past, airpower will continue to be a critical part of counterinsurgency operations.

## Endnotes

<sup>1</sup> Air Force Doctrine Document 2-3, Irregular Warfare, 1 August 2007, vi.

<sup>2</sup> Ibid., ii.

<sup>3</sup> Benjamin R. Maitre, “The Paradox of Irregular Airpower,” *Air & Space Journal* 21, no. 4 (Winter 2007): 36.

<sup>4</sup> James S. Corum and Wray R. Johnson, *Airpower in Small Wars: Fighting Insurgents and Terrorists* (Lawrence KS: University of Kansas Press, 2003), 185, 186.

<sup>5</sup> Ibid., 194.

<sup>6</sup> Ibid., 195.

<sup>7</sup> Steven C. Marsman, “Malaya: A Successful Counterinsurgency Operation,” *ACSC Quick-Look 05-14*,

<http://www.dtic.mil/cgi-bin/GetTRDoc?AD=ADA430897&Location=U2&doc=GetTRDoc.pdf>  
(accessed January 6, 2011).

<sup>8</sup> Mark Lax, "The War of the Running Dogs: The Malayan Emergency," in *Friends in High Places: Air Power in Irregular Warfare*, ed. Sanu Kainikara (Canberra: Air Power Development Centre, 2009), 25.

<sup>9</sup> Corum and Johnson, *Airpower in Small Wars*, 161.

<sup>10</sup> Ibid.

<sup>11</sup> Ibid., 163.

<sup>12</sup> Ibid., 164.

<sup>13</sup> Ibid., 172.

<sup>14</sup> Gillo Pontecorvo, dir., *Remembering History*, Disc Three: *The Film and History, The Battle of Algiers*, DVD (New York: Criterion Collection, 2004).

<sup>15</sup> Corum and Johnson, *Airpower in Small Wars*, 174.

<sup>16</sup> George C. Herring, *America's Longest War: The United States and Vietnam, 1950-1975* (Boston: McGraw Hill, 2002), 27.

<sup>17</sup> Ibid., 27, 24.

<sup>18</sup> Truman, Eisenhower, Kennedy, Johnson, Nixon, and Ford

<sup>19</sup> Phillip B. Davidson, *Secrets of the Vietnam War* (Novato CA: Presidio, 1990), 147-156.

<sup>20</sup> The advise and support strategy lasted the longest as the US escalated its early involvement in Vietnam, but it had little to do with application of airpower; it was more about developing South Vietnam's air force. As the communists were carrying out a guerrilla warfare type of insurgency, US advisors "developed [South Vietnamese] divisions, corps, and air forces." Ibid., 147. The US was trying to make the Republic of Vietnam armed forces (RVNAF) look like the US military, later even integrating RVNAF air forces into US army operations. William W. Momyer, *Airpower in Three Wars (WWII, Korea, Vietnam)* (Montgomery AL: Air University Press, 2003), 297. Rather than trying to recreate US military organization and doctrine, "South Vietnamese (and their American advisors) should have concentrated on developing political stability and pacification strategies, along with the development of small units to combat guerrillas and to clear and hold territory that could then be pacified." Davidson, *Secrets of the Vietnam War*, 147. This is a lesson the US would relearn forty years later in OIF and OEF. Growing Viet Cong strength and aggressiveness led to the collapse of advise and support.

<sup>21</sup> Ibid., 148.

<sup>22</sup> Ibid.

<sup>23</sup> Ibid.

<sup>24</sup> Herring, *America's Longest War*, 183.

<sup>25</sup> Ibid.

<sup>26</sup> Momyer, *Airpower in Three Wars*, 317, 346.

<sup>27</sup> Davidson, *Secrets of the Vietnam War*, 149.

<sup>28</sup> Phil M. Haun, *Airpower versus a Fielded Force: Misty FACs of Vietnam and A-10 FACs of Kosovo—A Comparative Analysis*, Thesis (Montgomery AL: School of Advanced Airpower Studies, 2004), 14.

<sup>29</sup> Ibid.

<sup>30</sup> Ibid., 16.

<sup>31</sup> Davidson, *Secrets of the Vietnam War*, 151.

<sup>32</sup> Ibid., 152.

<sup>33</sup> Herring, *America's Longest War*, 262.

<sup>34</sup> Davidson, *Secrets of the Vietnam War*, 154.

<sup>35</sup> Ibid., 156.

<sup>36</sup> Matthew Caffrey, "Afghanistan: Current Operational Lessons from the Soviet Experience," *ACSC Quick-Look 05-01*, <http://www.dtic.mil/cgi-bin/GetTRDoc?AD=ADA431196&Location=U2&doc=GetTRDoc.pdf> (accessed January 6, 2011).

<sup>37</sup> Ibid.

<sup>38</sup> Ibid.

<sup>39</sup> William Maley, "The Geneva Accords of April 1988," in *The Soviet Withdrawal from Afghanistan*, ed. Amin Saikal and William Maley (Cambridge: Cambridge University Press, 1989), 16.

<sup>40</sup> Sarah E. Mendelson, *Changing Course: Ideas, Politics, and the Soviet Withdrawal from Afghanistan* (Princeton: Princeton University Press, 1998), 97, 98.

<sup>41</sup> Edgar O'Ballance, *Afghan Wars: Battles in a Hostile Land—1839 to the present* (London: Brassey's, 2002), 189.

<sup>42</sup> George C. Solley, *The Israeli Experience in Lebanon, 1982-1985*, Abstract (Quantico VA: Marine Corps Command and Staff College, May 10, 1987).

<sup>43</sup> Ibid.

<sup>44</sup> Sanu Kainikara and Russell Parkin, *Pathways to Victory: Observations from the 2006 Israel-Hezbollah Conflict* (Tuggeranong Australia: Air Power Development Centre, 2007), 16.

<sup>45</sup> At the time, these aircraft were called unmanned aerial vehicles. They were later referred to as unmanned aerial systems in recognition of the ground-station component of the capability. Today they are called remotely piloted aircraft, recognizing there is in fact a human flying the aircraft.

<sup>46</sup> Stone Phillips, anchor, "Rescue on Roberts Ridge," *Dateline NBC*, New York, June 24, 2006. Television.

<sup>47</sup> Ann Scott Tyson, "New Approach to Afghanistan Likely," *The Washington Post Online*, June 3, 2009, <http://www.washingtonpost.com/wp-dyn/content/article/2009/06/02/AR2009060203828.html> (accessed December 18, 2010).

<sup>48</sup> Development of airpower in counterinsurgency applications should include a focus on technology. The US must complete several on-going technology efforts and develop new ones that will enable rapid airpower support. Two of the most important provide attack and airlift roles. Iraq has ordered dual role aircraft based on the T-6A Texan II. This fleet will provide training and could be modified for dual use as a counterinsurgency light attack aircraft. The relatively inexpensive turbo-prop aircraft is considerably easier to fly and better suited to counterinsurgency operations than jet aircraft. "The Penny Drops: Iraq chooses its Training & COIN aircraft," *Defense Industry Daily Online*, July 20, 2010, <http://www.defenseindustrydaily.com/iraq-issues-rfp-for-coin-aircraft-03281/> (accessed January 6, 2011). The same capability could support an Afghanistan air force in the future. The US already trains future pilots in the T-6A Texan II. Adding dual use configuration aircraft to the training fleet would provide a pool of counterinsurgency-ready pilots for any future need. The US must also complete delivery of its lightweight intra-theater cargo aircraft, the C-27J Spartan. This joint use aircraft provides the Army and USAF a lift capability smaller than a C-130 Hercules, but larger than a C-23 Sherpa. It will greatly relieve the heavily-tasked CH-47 Chinook, and will make movement safer and more responsive in counterinsurgency operations.

In addition to lethal and responsive counterinsurgency aircraft, the US should continue pursuing other enabling technologies. RPAs have proven their value in these kinds of operations. The US should field RPAs with endurance times measured in weeks or months. This would decrease crew demands and greatly improve situational awareness. One such example currently in flight testing is the Global Observer; eventually this aircraft will be liquid-hydrogen fueled and operate at altitudes over sixty-thousand feet. Aircraft with this capability will need new lightweight, low power sensors that provide the best information to forces on the ground. This will require better intelligence Tasking, Processing, Exploitation, and Dissemination capabilities as well as more efficient datalinks and integrated automated target identification tools.

With better targeting, Airmen will be able to employ weapons in congested areas at risk for civilian casualties. The US should continue developing a family of low-collateral damage weapons for use in these circumstances so ROE limitations like those in Afghanistan may be lifted. An example of such an effort is Special Operations Command's Stand-Off Precision Guided Munition alternate warhead study for the Griffin short-range air-to-surface missile which

will improve low-collateral damage, soft kill effects in the open. In addition to enhanced air domain weapons, the US should field space-based enabling technologies.

Two space technologies that have direct counterinsurgency application are micro-satellites and the X-37B space plane. Micro-satellites are smaller and cheaper than traditional satellites. They are designed to be easily built and configurable depending on mission needs. They could provide much needed communications bandwidth or specialized sensors directly over a counterinsurgency battlespace, relieving stress on national space assets. Micro-satellites do not require large booster rockets to put them in orbit. They could be launched from a space plane like the X-37B which returned to earth in December 2010 after seven-months in orbit. The X-37B itself could also carry sensors for use over a battlespace. Once fielded, the plane is designed for rapid launch and global reach.

<sup>49</sup> Howard G. Coombs, "The Postmodern Air Campaign: Operation Desert Storm to Operation Iraqi Freedom," in *Air Campaigns in the New World Order*, ed. Allan D. English (Winnipeg: Center for Defence and Security Studies, 2005), 59.

<sup>50</sup> Dale Greer, "Compass Call squadron departs 386<sup>th</sup> AEW as a result of drawdown in Iraq," *US Air Forces Central News*, August 29, 2010, <http://www.afcent.af.mil/news/story.asp?id=123219694> (accessed December 18, 2010).

<sup>51</sup> Robert M. Gates, Remarks to US Air War College, Montgomery AL, April 21, 2008.

<sup>52</sup> Ibid.

<sup>53</sup> Russell Petcoff, "Final MC-12 deployed to USCENTCOM AOR," *Air Force News*, July 12, 2010, <http://www.globalsecurity.org/intell/library/news/2010/intell-100712-afns01.htm> (accessed December 18, 2010).

<sup>54</sup> Gabriel Siboni, "The Military Campaign in Lebanon," in *The Second Lebanon War: Strategic Perspectives*, ed. Shlomo Brom and Meir Elran (Tel Aviv: Institute for National Security Studies, 2007), 64.

<sup>55</sup> Anthony H. Cordesman, George Sullivan, and William D. Sullivan, *Lessons of the 2006 Israeli-Hezbollah War* (Washington DC: Center for Strategic and International Studies Press, 2007), 105-107.

<sup>56</sup> David E. Johnson, *Military Capabilities for Hybrid War: Insights from the Israel Defense Forces in Lebanon and Gaza* (Santa Monica: RAND Corporation, 2010), 3.

<sup>57</sup> Kainikara and Parkin, *Pathways to Victory*, 79.

<sup>58</sup> Edward A. Kostelnik, *Airmen First: Shaping the Expeditionary Air Force for Counterinsurgency*, Thesis (Monterey CA: Naval Postgraduate School, September 2006), i.

<sup>59</sup> Michael R. Boera, "The Combined Air Power Transition Force: Building Airpower for Afghanistan," *Air & Space Power Journal* 24, no. 1 (Spring 2010): 20.

<sup>60</sup> Maitre, "The Paradox of Irregular Airpower," 40, 41.