

DECENTRALIZED AND DISTRIBUTED AIRPOWER
FOR THE MODERN COUNTERINSURGENCY FIGHT

BY

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The undersigned certify that this thesis meets master's-level standards of research, argumentation, and expression.

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ABSTRACT

This study examines the decentralized and distributed nature of counterinsurgency operations and the role that airpower plays in those types of conflicts. Specifically this study examines whether airpower can be employed in a decentralized and distributed manner similar to ground forces. An examination of two historical case studies of airpower in COIN provide lessons learned and lessons ignored that contribute to the current employment methods of airpower.



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Introduction

Furthermore, the self-containment of subordinate units helps simplify planning by reducing the time and effort that have to be spent on overall coordination. If exercising central control over limited resources is one way of maximizing cost-effectiveness, distributing those resources among subordinate units may, by virtue of eliminating much of the need for planning, coordination, and internal communication, be another. Since disruptions in the communications process, and consequently uncertainty, are inherent in war, I would suggest that distributing the resources may often be the more effective way to maximize cost-effectiveness.

Martin Van Creveld

Vignette

0200 hours: Mission force crosses the line of departure. It was a well-rehearsed, night time, conventional force, “cordon and knock” mission to capture a High Value Individual (HVI) who was believed to be a local improvised explosive device (IED) maker. The mission force was an infantry company mounted in High Mobility Multipurpose Wheeled Vehicles (HMMWVs) and the objective was a walled residence in a small built-up urban area near the Euphrates River.

0245 hours: The outer cordon force had just set into their positions and the inner cordon force and entry team were rapidly closing in on the target building. At that moment the Forward Air Controller (FAC) received word that the section of aircraft supporting the operation – who had been provided a copy of the operations order and briefed via phone from the FAC on the scheme of maneuver - was being redirected to a troops in contact (TIC) event somewhere to the south and that there would be a 35 minute gap until another section of aircraft would be on station to support. The mission would be over long before then. Since Remotely Piloted Aircraft (RPA) support had been unavailable, this mission would now be executed without any support from the air.

0246 hours: As the inner cordon force set into their positions and the entry force moved toward the objective structure the outer cordon force reported three small groups of individuals attempting to exfiltrate from the objective area.

0252 hours: The entry force cleared and secured the objective and reported that the HVI was not present. The outer cordon force reported that they had detained one of the fleeing groups, but that the other two groups had managed to evade capture and were being pursued.

0256 hours: Outer cordon force reports that remaining two groups had maneuvered through back yards, walled residences, and trash piles ultimately reaching the Euphrates River and fleeing in two small motor boats toward the south. The difficult terrain in the area of operations combined with the limited number of bridges across the Euphrates River denied effective pursuit by the mission force.

0310 hours: Mission declared failure. Mission force retrogrades.

If only there had been air...

This vignette reflects an actual event that occurred in Al Anbar province, Iraq, during Operation Iraqi Freedom II. While the failure of the mission cannot be solely blamed on the lack of the aviation assets, this shortfall certainly was a contributing factor. Cordon and knock missions are extremely difficult to execute with any measure of surprise, especially in an urban setting, and require great speed and flexibility. The mission force commander had planned on having airpower available to increase his situational awareness as well as provide the flexible response needed to ensure mission success. Typically the moment the mission force enters an area the local insurgent network alerts the population and individuals attempt to flee. Aviation assets are able to view this movement and provide updates to the ground force commander, direct friendly unit movements, track fleeing individuals to their destinations, or in specific situations execute a kinetic strike if certain criteria are met.

In a counterinsurgency environment, aviation provides an incalculable advantage to the ground force when executed as planned. When aviation requests are denied, or poorly prioritized, or aviation assets are reallocated at the last minute by the ground force chain of command, ground forces are often left to execute their mission without one of their best tools.¹ In regard to the vignette, and as indicated, the pilots supporting this

¹ This event was a US Marine operation and all units involved were part of the Marine Expeditionary Force (MEF), the largest of the Marine Air Ground Task Forces (MAGTFs). The aviation assets of the MEF were controlled by the Direct Air Support Center (which was at the MEF level) and tasked to support subordinate units, in this case from the MEF to the Division, from the Division to the Regiment, and finally

mission had been briefed by the units Forward Air Controller and most likely would have been able to further prepare themselves for the mission, ensuring that they had the required situational awareness of the target, geography, and friendly scheme of maneuver to best employ their airframe. Once they were called to support the TIC all of that preparation was wasted. While procedures would have ensured that another section of aircraft was rerouted to support this operation there would have been a time delay while the ground unit waited for the section to arrive and check in on station. The new pilots would have had limited situational awareness due to the fact that the only information they would have had on the operation would have been what the FAC pushed to them as they checked in on station. Ideally the pilots would have been somewhat familiar with the area of operations, but depending on unit rotation, pilot schedule, and mission briefing this is not always the case.

The contribution and value of airpower to the current counterinsurgency (COIN) conflicts is significant and not in question.² The success US ground forces have achieved in Iraq and are achieving in Afghanistan could not have been possible without US airpower. However, there does seem to be a lack of parallel evolution between US ground forces and US airpower in terms of being able to operate in a more decentralized and distributed manner as dictated by COIN strategies. Specifically it is my argument that US airpower has failed to adapt to the unique requirements of a counterinsurgency strategy to the same degree and manner as US ground forces and that only by decentralizing and distributing tactical airpower down to the lowest levels can the US truly maximize the asymmetric advantage provided by airpower in a counterinsurgency conflict.

Certainly US airpower entities have updated their procedures, increased integration, and evolved to meet emerging requirements, but it has not been the bottom-

from the Regiment to the Battalion. In regard to this specific example it is the ground force chain of command (Regiment and Division) that approved the redirection of assets to a troops in contact (TIC) event and not the air force chain of command. However, due to the political nature of today's conflicts and the associated risk aversion to casualties by military commanders at all levels all TIC events take priority over all other operations. Whether or not this should be the case is the topic for a separate thesis and outside the specific topic as presented here, although it would be affected positively by the decentralization of aviation assets.

² Derek Read, "Airpower in COIN: Can Airpower Make a Significant Contribution to Counter-Insurgency?," *Defence Studies* 10, nos. 1-2 (March-June 2010): 127-132.

up transformation that the ground forces have executed. To be clear, this study does not argue that the current command and control system and processes are broken or irrelevant; in fact, for conventional or major combat operations (MCO) this system and processes are largely responsible for the superiority of the US military over all others.³ However, US airpower has failed to apply the successful counterinsurgency lessons learned early on in US COIN experiences with aviation in Nicaragua, and have risked repeating the same mistakes made during the US failure in Vietnam. Ground forces carry some of the blame, as US ground force commanders have been ineffective in clearly articulating their requirements for aviation support and have failed to employ their organic non-aviation assets in a manner that reduces their dependency on aviation. They have also avoided examining whether they should accept greater risks in lower threat areas to allow operations in higher threat areas to receive the preponderance of aviation support.

Finally, while there are countless aviation-oriented journal articles examining the need for increased levels of joint cooperation, greater integration of aviation support to ground troops, and the procurement of a new, light attack aircraft the truth is that these are merely superficial changes. US ground forces made all of these changes (except obviously the light attack aircraft, but the new mine resistant armored vehicles would be a comparable example) and have completely changed their unit organizations, tables of equipment, training plans, and doctrine. In his book *Counterinsurgency Warfare Theory and Practice*, David Galula states that a counterinsurgent's armed forces must adapt to counterinsurgency warfare. He further indicates that these adaptations must extend beyond units and equipment into "adaptation of minds" for new missions and the special demands of counterinsurgency warfare.⁴

This paper will examine the question of whether US air forces have decentralized and distributed airpower to the lowest levels required to maximize its asymmetric advantage in a COIN conflict by providing relevant foundational information of modern counterinsurgencies and exploring the historical use of airpower in COIN. This paper will

³ Specific examples that clearly indicate the efficiency and effectiveness of these methods would be Operation Desert Storm and the initial ground war in Operation Iraqi Freedom.

⁴ David Galula, *Counterinsurgency Warfare: Theory and Practice* (Westport, CT: Praeger Security International, 1964), 65-66.

provide specific COIN definitions, concepts, and discourse as related to the recent conflict in Iraq, and the current conflict in Afghanistan; an examination of two historical case studies that highlight the successes and perceived failures of airpower; and finally, a summary of the implications and conclusions of the material presented and how it relates to current and future COIN conflicts.

The intent of Chapter 1 is to provide a general understanding of irregular war, specifically the nature of insurgencies and counterinsurgencies. It examines the relevant definitions and concepts of these operations to provide a clear understanding of the issues that will be highlighted in the following chapters. It will also offer an overview of the various discussions and debates regarding airpower employment in COIN that are ongoing within the US armed forces.

The first case study is that of US Marine aviation in Nicaragua 1927-1933, showing how the early years of aviation were shaped by the requirements of the land force commanders. Aviation was in its infancy and both infantry commanders and aviators were attempting to determine the best method of employing aviation within the parameters of a counterinsurgency. Aviation was hailed as a significant contributor to the successful conclusion of hostilities in Nicaragua and the Marine Corps took its lessons learned to heart. Many of the lessons learned from this conflict were formalized and integrated into the US Marine Corps Small Wars Manual that has recently been republished due to its relevancy within the current conflicts.

The second case study is that of US airpower in Vietnam, showing how airpower supported, or, as some ground commanders have claimed, failed to support their schemes of maneuver in defeating the Viet Cong and their insurgency within South Vietnam. It will highlight the fact that previous lessons learned regarding airpower in counterinsurgency operations were ignored, the US Marine Corps Small Wars Manual all but forgotten. The study will examine the factors that influenced airpower in the early years of the conflict and how airpower evolved, or didn't evolve, as the conflict transitioned from a counterinsurgency conflict to a more conventional one. The Vietnam War provides an example of how failing to adapt to the requirements of the conflict can ultimately lead to strategic failure.

The final chapter will provide a summary of the key points from the two case studies and address the implications and conclusions from the material that has been presented. It will also provide suggestions and additional recommendations as to how US airpower can continue to develop and adapt to better support modern counterinsurgency strategies.



Chapter 1

Counterinsurgency Terms, Concepts, and Discourse

In small wars separation in the field is often a necessary consequence of the conditions of the campaign. In the first place there frequently is more than one objective in struggles of this nature. Thus in the Afghan wars the cities of Kabul and Kandahar have always been in the first instance aimed at, necessitating at least two entirely different lines of advance. During the Indian mutiny, Delhi and Lucknow became two distinct gathering points of the rebel forces. In guerilla warfare the regular army of necessity becomes split up into many fractions – as will be seen in Chapter XI, separation of force is the basis of conducting operations against opponents who adopt this method of making war.

Colonel C.E. Callwell

This chapter will show why counterinsurgency demands decentralized or distributed operations and that there has been a call for airpower to re-examine how it is organized to support operations in a COIN environment. The first section of this chapter will review the important definitions and terminology associated with counterinsurgency operations. The next section will discuss the importance in winning the support of the population and how airpower provides an asymmetric advantage in accomplishing that task. The third section will examine how US ground forces have adapted to meet the challenges of counterinsurgency operations and the debate surrounding whether airpower has adapted in a similar manner. This chapter will conclude with a review of the themes presented from the debates about airpower and how when tied to the lessons presented in the case studies support this papers primary argument for decentralizing airpower.

Throughout this paper the term “US air forces” refers to all aviation assets within the US military to include the: US Air Force, US Navy, US Marine Corps, and US Army. Where possible the term “airpower” or “US airpower” will be used instead of the terms “air forces” or “US air forces” to avoid any confusion, however in some specific cases it cannot be avoided.¹

¹ The term “US Air Force” as it refers to the specific branch of service within the Department of Defense will be used infrequently and only when required to discuss a topic directly relevant to it.

The term “US ground forces” refers to all non-aviation units of the US military but primarily refers to ground combat units. This paper does not address any special operations units or their aviation assets but only conventional air and ground forces for the US military services. Special operations units are uniquely organized and have their own organic, dedicated aviation assets and during most missions they have built in redundancy to facilitate any unforeseen problems.

For clarity and to reflect the joint nature of today’s conflicts the definitions that follow are primarily from *Joint Publication 1-02, Department of Defense Dictionary of Military and Associated Terms*. Where applicable, the study uses a service specific definition to maintain clarity.

Irregular warfare (IW) is defined as, “A violent struggle among state and non-state actors for the legitimacy and influence over the relevant population(s). Irregular warfare favors indirect and asymmetric approaches, though it may employ the full range of military and other capacities, in order to erode an adversary’s power, influence, and will.”² The critical aspect of this definition is the focus on the relevant population. IW is not necessarily focused on gaining territory or destroying armies, it is about winning the support of, or more specifically the control of, the population. The term IW is typically used to describe any conflict not involving the uniformed armed forces of two or more nations engaging in open, direct combat operations. There are numerous types of conflicts that fall within the realm of irregular warfare but the focus of this paper is on only two of them: insurgencies and counterinsurgencies.

While an insurgency is “the organized use of subversion and violence by a group or movement that seeks to overthrow or force change of a governing authority,”³ a counterinsurgency (COIN) is the “comprehensive civilian and military efforts taken to defeat an insurgency and to address any core grievances.”⁴ Counterinsurgency operations are complex, restrictive, and require a much different skill set than conventional, or major, combat operations.⁵

² Joint Publication 1-02, *Department of Defense Dictionary of Military and Associated Terms*, 08 November 2010 (as amended through 15 January 2012), 172.

³ JP 1-02, *Department of Defense Dictionary of Military and Associated Terms*, 163.

⁴ JP 1-02, *Department of Defense Dictionary of Military and Associated Terms*, 77.

⁵ US Army Field Manual No. 3-24/Marine Corps Warfighting Publication No. 3-33.5, *Counterinsurgency Field Manual*, (Chicago, IL: The University of Chicago Press, 2007), 47-52, 197.

The term major combat operations (MCO) refers to the actions taken as part of an armed conflict between belligerents where large heavily armed conventional military forces fight for military supremacy.⁶ Typically these operations fall under the broader category of general war, which refers to a conflict involving the potential survival or destruction of a nation state. MCO and the term “conventional operations” are synonymous and are typically used to refer to the type of combat as witnessed in World War I, World War II, and Korea.

One key point to understand within the frame of this paper is the impact of the difference between COIN and MCO as it relates to the employment of ground forces. In MCO the typical size ground force unit that is used for planning is the Battalion, which numbers approximately 1000 troops. In COIN operations it is smaller - typically the company or platoon unit level, which is approximately 150 and 50 troops, respectively.

As per Air Force Doctrine Document 1 *Air Force Basic Doctrine, Organization, and Command* (AFDD-1) the term airpower is defined as, “the ability to project military power or influence through the control and exploitation of air, space, and cyberspace to achieve strategic, operational, or tactical objectives.”⁷ This paper will use the term airpower to refer to air forces that support US ground forces, typically at the tactical and lower operational level. It will include close air support (CAS) platforms, unmanned aircraft systems (UASs) or remotely piloted aircrafts (RPAs), casualty and medical evacuation (CASEVAC/MEDEVAC) aircraft, and aerial mobility aircraft.

Perhaps one of the most important concepts related to the topic in question is the US Air Force’s tenet of centralized control and decentralized execution.⁸ Centralized control and decentralized execution of airpower is the Air Force’s preferred manner of employing aviation assets in support of operations. Airmen argue that consolidating control of airpower under a single air component commander maximizes airpower’s versatility, flexibility, effectiveness, and responsiveness while balancing a concentration of effort with an economy of force. AFDD-1 further clarifies that, “A single air component commander, focused on the broader aspects of an operation, can best mediate

⁶ US Army Field Manual 3-0 w/Change 1, *Operations*, (Washington DC: Government Printing Office, 2011), 2-2, <http://www.fas.org/irp/doddir/army/fm3-0.pdf>.

⁷ Air Force Doctrine Document (AFDD) 1, *Air Force Basic Doctrine*, 14 October 2011, 129.

⁸ In this case the term “US Air Force” refers specifically to that branch of the DOD.

the competing demands for tactical support against the strategic and operational requirements of the conflict.”⁹ In regard to irregular warfare AFDD 2-3 *Irregular Warfare* states, “Air Force planners may have to adapt and develop creative C2 relationships to facilitate successful mission accomplishment and optimize the tenet of centralized control/decentralized execution. Due to the localized nature of most IW enemies and specifically insurgencies, decentralized execution is vital to the successful integration of airpower.”¹⁰ JP 1-02 defines decentralized execution as the “delegation of execution authority to subordinate commanders” which typically refers to the fact that subordinate commanders in the execution of their duties may be required to make decisions and take action based on the specific circumstances and situations they face.¹¹

In the current conflicts in Iraq and Afghanistan the term decentralized operations has come into use to describe the geographical separation and array of small units located throughout the area of operations. These small unit leaders are planning, coordinating, and conducting their own operations based on their commander’s (or higher’s) intent or guidance and their own assessment of the situation within their specified area of operations.¹² The chain of command is provided information and intelligence on all missions conducted but is in a supporting role only. In effect these small units are conducting missions based on decentralized control and decentralized execution.

Marines have taken this trend a step further, describing their operational approach as “distributed operations” or “disaggregated operations.” Distributed operations refers to an emerging US Marine Corps operating approach that focuses on creating an “advantage over an adversary through the deliberate use of separation and coordinated, interdependent, tactical actions enabled by increased functional support, as well as by enhanced combat capabilities at the small-unit level.”¹³ It is similar to decentralized operations but expanded to a much greater degree to facilitate the enhanced training and

⁹ AFDD 1, *Air Force Basic Doctrine*, 38.

¹⁰ AFDD 1, *Air Force Basic Doctrine*, 66.

¹¹ JP1-02, *Department of Defense Dictionary of Military and Associated Terms*, 86.

¹² USA FM 3-24/MCWP 3-33.5, *Counterinsurgency Field Manual*, 46-47.

¹³ Gen M.W. Hagee, “A Concept for Distributed Operations” (Washington, DC: HQ Marine Corps, 25 April 2005), I, <http://www.marines.mil/unit/tecom/mcu/grc/library/Documents/A%20Concept%20for%20Distributed%20Operations.pdf>.

technological edge that Marines have today. It refers not only to the organization of the unit, but to the unit's capabilities and standard operating procedures.

Disaggregated operations are typically only associated with COIN operations in which the unit must be able to influence multiple population centers throughout an area of operations. They force the unit to spread its combat power to maximize economy of force.¹⁴

These decentralized or distributed operations are important to COIN, because the crux of COIN is winning support from the populace, while denying the enemy a base of support. In the foreword to David Galula's *Counterinsurgency Warfare Theory and Practice*, John Nagl focuses the reader on the keys to success: "The aim of control is to cut off, or at least reduce significantly, the contacts between the populations and the guerrillas. This is done by watching the population's activities... This process of getting acquainted with the population may be sped up if the occupied villages are divided into sections and each assigned to a group of soldiers *who will always work there* [emphasis added]."¹⁵ One of the primary methods of winning the support of the population is to use ground forces to deny the enemy the ability to influence population centers while enforcing the rule of law. There are few ways to effectively execute operations that involve winning over the support of the population other than having boots on the ground interacting with the people and ensuring that the insurgents have no freedom of maneuver. This is not limited to just cutting off contact between the insurgents and the population; it also includes providing security, ensuring the rule of law, and building trust and partnerships with as many locals as possible. One of the key advantages that US ground forces have in executing these missions to win the support of the population is the asymmetric advantage of airpower.

The asymmetric advantage of airpower to ground forces executing COIN operations is significant as it provides ground force units the ultimate high ground. Quite simply, in the current COIN conflicts the insurgents do not have any legitimate method to deny the use of airpower and this allows small units to gain and maintain the initiative whenever the insurgents attempt to operate in the open. This fact can be clearly seen in

¹⁴ Capt Todd Boese, "Task Organizing the MAGTF for Disaggregated Operations," *Marine Corps Gazette* 95, no.1 (January 2011): 22-23.

¹⁵ Galula, *Counterinsurgency Warfare: Theory and Practice*, ix - John Nagl Foreword.

the massive increase in the use of airpower in Iraq during the surge in 2006 and 2007 as the US attempted to stabilize the deteriorating situation on the ground there.¹⁶ Airpower also allows friendly forces to shoot, move, and communicate in complex terrain while maintaining the situational awareness to anticipate the enemy's actions.¹⁷ It is important to note that while airpower provides a distinct asymmetric advantage to US ground forces conducting COIN operations, it will only ever have a supporting role. The troops on the ground provide medical care, build schools, provide security, and shake the hands of the people they are attempting to influence. Dr. James Corum, in his essay "Airpower and Counter-Insurgency: Back to the Basics", clearly states, "While there is no airpower solution to counter-insurgency, there is certainly a large role for airpower. Airpower can bring firepower, transport, reconnaissance, and constant presence to the fight; and these are all things that a counter-insurgency force needs."¹⁸

Throughout the last ten years of conflicts in Iraq and Afghanistan US ground forces have been forced to adapt to the specific complexities of the operating environment in which they found themselves.¹⁹ Forces that had been manned, trained, and equipped to execute conventional, large scale, major combat operations against a clearly identified aggressor with similar conventional capabilities were forced to rapidly evolve into a light weight, small unit-oriented, counterinsurgency force that was focused on interacting with and winning over the population.²⁰ This required changes to manning documents, training programs, and tables of equipment.²¹ Units that had planned to execute at the battalion level are now executing at the platoon and section level. Weapon systems that had been designed to cause catastrophic damage were being employed in far less lethal methods. HMMWVs and tanks were being replaced by Mine Resistant Ambush Protected vehicles (MRAPs) to deal with the emerging threat from improvised

¹⁶ MajGen Charles J. Dunlap, "Making Revolutionary Change: Airpower in COIN Today," *Parameters*, Summer 2008, 54.

¹⁷ Col John D. Jogerst, "Preparing for Irregular Warfare: The Future Ain't What it Used to Be," *Air & Space Power Journal* XXII, no. 4 (01 December 2009), 4, <http://www.airpower.au.af.mil/airchronicles/apj/apj09/win09.htm> (accessed on 22 February 2012).

¹⁸ James S. Corum, "Air Power and Counter-insurgency: Back to the Basics," in *Air Power, Insurgency and the "War on Terror"*, ed. Dr. Joel Hayward (Lincolnshire, UK: Royal Air Force Centre for Air Power Studies, 2009), 220.

¹⁹ USA FM 3-24/MCWP 3-33.5, *Counterinsurgency Field Manual*, xiii-xiv.

²⁰ Alan J. Vick et al., *Air Power in the New Counterinsurgency Era: The Strategic Importance of USAF Advisory and Assistance Missions* (Santa Monica, CA: RAND Corporation, 2006), 59-62.

²¹ Galula, *Counterinsurgency Warfare: Theory and Practice*, x.

explosive devices (IEDs) and explosively formed penetrators (EFPs). The most significant change, however, in the transition from a conventional conflict to a counterinsurgency conflict is in the method and manner in which US ground force units conduct operations.²²

In order to win over the population, one of the keys to a successful counterinsurgency campaign, US ground forces are operating in a significantly more decentralized and distributed manner than ever before. This allows units to achieve a level of interaction with the population that would otherwise be impossible, as well as deny the insurgents freedom of maneuver. It also demands that ground force commanders allocate already constrained resources in an even more judicious manner to mitigate the risks associated with having small units operating independently over generally vast areas. This is where the value of airpower can most easily be witnessed. The key factor that allows commanders to accept the associated levels of risk inherent in operating in a decentralized and distributed manner is the availability and application of airpower.

While airpower is an enabler to conducting operations in this manner, there is debate over whether it is employed appropriately to best provide this support. Arguments against the current employment claim the current application of airpower, both in Operation Iraqi Freedom and Operation Enduring Freedom in Afghanistan, is based on the post-World War II/Cold War model for major combat operations. They propose the organizations and processes, in simplest terms, were designed for large theater conflicts where there would be high demand for limited assets and the planning and prioritization of those assets would be critical to maximize the efficient and effective use of all aviation assets available. Major Ben Zweibelson argues in his article “Penny Packets Revisited: How the USAF Should Adapt to 21st Century Irregular Warfare” that while these organizations and processes are highly effective for the type of combat they were designed for they are somewhat lacking when applied to an irregular war or counterinsurgency conflict.²³ In fact, the very essence of irregular warfare, specifically

²² USA FM 3-24/MCWP 3-33.5, *Counterinsurgency Field Manual*, 151-154.

²³ Maj Ben Zweibelson, “Penny Packets Revisited: How the USAF Should Adapt to 21st Century Irregular Warfare,” *Small Wars Journal*, (September 2010), <http://www.smallwarsjournal.com/blog/journal/docs-temp/559-zweibelson.pdf>.

counterinsurgency with its decentralized and distributed nature, is at great odds with this Cold War construct. This is not to say that these organizations and processes are not able to support the current operations by ground forces, nor have they failed to adapt to better support the dynamic nature of the conflicts.²⁴ However, there seems to be a hesitation to commit to a more decentralized control and decentralized execution type of organization and process.²⁵

There are two themes that routinely appear in journals and forums regarding air support to counterinsurgencies, specifically in the current conflicts in Iraq and Afghanistan. These themes provide the basis for the foundation of my argument, yet they only achieve a half measure of what can be, and needs to be, accomplished to fully capitalize on the advantage of airpower in the counterinsurgency fight. The first theme revolves around the US Air Force's tenet of centralized control and decentralized execution of airpower in the current conflicts. There is an ongoing debate that this tenet, while valuable to MCO, is less than ideal when utilized in counterinsurgencies. The result is that the Air Force has implemented a number of changes and refined some of the critical processes, all the while maintaining its adherence to this tenet of airpower.

In their article "Developing Flexible Command and Control of Airpower" Lieutenant Colonel Jeffrey Hukill, USAF, Retired and Dr. Daniel R. Mortenson present the argument that centralized control and decentralized execution only works at the combatant commander level and focuses only on MCO. They argue that the US Air Force needs to develop a method of flexible command at the sub theater level to facilitate operations at a lower level than currently possible, especially given the nature of today's

²⁴ Air Force Doctrine Document (AFDD) 2-3, *Irregular Warfare*, 1 August 2007, 66.

²⁵ To clarify – this discussion is meant to provide a wave top level overview of the current application of airpower as employed through the use of the Air Operations Center (AOC) and TACS (Theater Air Control System). As stated in AFDD 2-3 *Irregular Warfare* these organizations can be adapted or modified by the commander as required to meet mission requirements, and certainly they have over the past 10 years of OIF and OEF. However, it also states on page 67 that "The current TACS organization is optimized for a theater-level traditional warfare with the AOC as the senior C2 element and focal point for all Air Force operations." The current conflicts do not fall into the category of traditional warfare, i.e. MCO, so as per my thesis, perhaps there is an organization or process that is optimized for a theater-level irregular warfare. It is not my intent to examine specific processes or provide recommendations on how to improve the processes but merely to highlight this incongruence as well as show that there continues to be debate over the employment of airpower in irregular warfare.

current conflicts.²⁶ They state, “The Air Force must adjust its current organizational structures to create flexible command and control options that place decision authority at the appropriate level of command in order to prepare for the complex operating environment of the future.”²⁷ This would facilitate an improvement in the responsiveness of airpower to events unfolding within the area of operations while maximizing the flexibility that airpower provides.

Similarly, Major Ben Zweibelson, USA, in his article titled “Penny Packets Revisited: How the USAF Should Adapt to 21st Century Irregular Warfare,” argues that centralized control and decentralized execution encourages the Joint Force Air Component Commander (JFACC) to reside thousands of miles away from where the ground forces are waging war. He claims that while this was, and is, highly effective for MCO, it places the JFACC at a significant disadvantage in irregular warfare.²⁸ He proposes that the JFACC and the AOC staff cannot possibly command and control, including prioritization and development of the Air Tasking Order, when they are commanding and controlling at a level far above the decentralized, distributed ground force commanders. Regarding the tenet of centralized control and decentralized execution he claims, “Neither ground nor sea forces take such an obtuse and inflexible approach to the full spectrum of combat; the Air Force should not either.”²⁹

This point is reinforced in an article by Lieutenant Colonel Buck Elton, USAF, titled “Shortchanging the Joint Doctrine Fight: One Airman’s Assessment of the Airman’s Assessment” as he examines the rationale behind having the critical Airmen on the USCENTCOM staff placed in the Combined Air Operations Center (CAOC) rather than placing them at lower levels where he says they would be more effective. He states, “The fact that the joint force air component was not involved in the planning of Operation Anaconda in Afghanistan highlights the limitations of “controlling” airpower from a base hundreds of miles away from the ground component commanders and

²⁶ LtCol Jeffrey Hukill and Dr Daniel Mortenson, “Developing Flexible Command and Control of Airpower,” *Air and Space Power Journal*, Spring 2011, 61, http://www.airpower.maxwell.af.mil/airchronicles/apj/2011/2011-1/2011_1_03_hukill_mortensen.pdf.

²⁷ Hukill and Mortenson, “Developing Flexible Command and Control of Airpower,” 54.

²⁸ Zweibelson, “Penny Packets Revisited: How the USAF Should Adapt to 21st Century Irregular Warfare,” 6.

²⁹ Zweibelson, “Penny Packets Revisited: How the USAF Should Adapt to 21st Century Irregular Warfare,” 1.

planners.”³⁰ Another interesting point he highlights in regard to this debate is that, while operations in Iraq drove the ground forces to adopt non-doctrinal command and control arrangements, the Air Force made no such changes.

Major Michael Kometer, USAF, provides an in depth analysis of the debate regarding centralized control and decentralized execution in his 2003 article “The Strategy of Control: Centralized vs. Decentralized Control of US Airpower.” He examines the various arguments for and against centralized and decentralized control of military airpower from the various lenses of military theorists, historians, airmen, and political decision makers.³¹ He seeks to clarify some of the confusion over this issue, which he claims is the result of over-generalizing by all parties, and suggests that it is critical to understand that centralized control and decentralized control can only be understood within the context of the levels of war in which they are applied.³² While his article clearly captures the essence of this debate, and examines tactical level airpower operations such as close air support, it is primarily focused on MCO, not COIN. However, his conclusion that, “The point is that neither centralized nor decentralized control is the final answer to every situation,” remains valid to this discussion.³³

Finally, Lieutenant Colonel Clint Hinote in his 2009 published research paper “Centralized Control and Decentralized Execution: A Catchphrase in Crisis?” examines the debate between centralization and decentralization of airpower and how the Air Force must develop “a deeper understanding of their master tenet to ensure they are able to advocate effectively for airpower solutions.”³⁴ He makes the argument that the recent conflicts in Iraq and Afghanistan have highlighted this debate and that the Air Force needs to ensure they are determining and communicating the correct balance between centralized and decentralized command and control of airpower. He concurs with Major Kometer that this issue must be discussed within the proper context of the level of war at

³⁰ LtCol Buck Elton, “Shortchanging the Joint Doctrine Fight: One Airman’s Assessment of the Airman’s Assessment,” *Small Wars Journal*, 12 July 2008, 3, <http://smallwarsjournal.com/jrnl/art/shortchanging-the-joint-doctrine-fight>.

³¹ Maj Michael Kometer, “The Strategy of Control: Centralized vs. Decentralized Control of US Airpower,” *Defence Studies* 3, no. 2 (Summer 2003): 37.

³² Kometer, “The Strategy of Control: Centralized vs. Decentralized Control of US Airpower,” 56.

³³ Kometer, “The Strategy of Control: Centralized vs. Decentralized Control of US Airpower,” 37.

³⁴ LtCol Clint Hinote, *Centralized Control and Decentralized Execution: A Catchphrase in Crisis?* Air Force Research Institute Papers 2009-1 (Maxwell AFB, AL: Air University Press, March 2009), 1.

which airpower is being utilized and that the solution does not always have to be an all or nothing proposition. He concludes that in light of the current conflicts a more decentralized approach, away from the AOC construct and to a more decentralized structure, may be more effective.³⁵

The second, and perhaps most common, theme in recent journal articles is that of the desire for closer integration between the air forces and the ground forces planning staffs and commanders. This theme has been voiced by personnel at all levels and from all services. The dynamic nature of counterinsurgency operations where the enemy has the ability to engage or disengage friendly forces at its discretion has required an unprecedented level of interaction and coordination between all entities involved in current operations. While technology has allowed organizations to flatten and has significantly improved command and control in general, it fails to reproduce the distinct advantages of face to face, personal interactions and the value of relationships between personnel.

Marine Brigadier General Robert Walsh was the Commanding General of 2d Marine Aircraft Wing (2d MAW) during Operation Iraqi Freedom 2009 and in his article “Air Support in Irregular Warfare” he states, “Closer integration was required during these dispersed operations in order to maximize aviation’s ability to shift rapidly with speed and maneuver and be responsive to ground force demands.”³⁶ One of the changes that he instituted to facilitate this integration was collocating the DASC within the II Marine Expeditionary Force (MEF) combat operations center (COC). Regarding this change he states, “In today’s high-technology and rapid decision making environment, we believe that physical collocation, vice electronic collaboration, is mandatory.”³⁷ He also collocated the MAW’s unmanned aircraft system (UAS) COC to facilitate closer interaction between UAS mission commanders, operators, and intelligence personnel and the supported ground force senior watch officer and watch staffs. “We demonstrated that this new change provides a more dynamic and synergistic relationship between the two COCs and should be a model for future operations.”³⁸ The very fact that after more than

³⁵ Hinote, *Centralized Control and Decentralized Execution: A Catchphrase in Crisis?* 70.

³⁶ BGen Robert S. Walsh, “Air Support in Irregular Warfare,” *Marine Corps Gazette*, July 2010, 51-54.

³⁷ Walsh, “Air Support in Irregular Warfare,” 54.

³⁸ Walsh, “Air Support in Irregular Warfare,” 54.

six years of counterinsurgency operations the US Marine Corps found areas in which they could integrate to a further degree their own organic assets is an indicator that there may be options available to all air forces to close the gap with the ground forces.

In his article “Counterinsurgency Airpower: Air-Ground Integration for the Long War,” Colonel Howard D. Belote, USAF, discusses the value of the integration of the air-ground team and how that relationship exceeds any wire diagram on a power point slide.³⁹ He explains how the Multinational Corps – Iraq (MNC-I) Joint Fires and Effects Cell (JFEC) ultimately integrated the Air Support Operation Group (ASOG) into the JFEC, leading to an overall increase in the effectiveness of a number of processes, including reducing the average time of response to troops in contact (TIC) events.⁴⁰ He concludes that the only way to maximize the capabilities of the various services is to develop air-ground teams jointly, train in peace time together, plan at all levels together, and execute operations together.⁴¹

In a truly “joint” article titled, “The Tower of Babel? Joint CAS Operations in Afghanistan,” six officers from the four US armed services examine numerous failures of CAS operations during Operation Anaconda. These failures led to a Joint CAS conference at Al Jaber Air Base in Kuwait immediately after the operation to review the causal factors of these failures. In reading through the numerous problems identified, it is clear that the majority of them could have been solved through a closer integration of the key planners and executors. Some of their recommendations highlight this fact: all operators involved in an operation should get an overview of the commander’s intent, operational level planners should design airspace control measures as a team effort, ground combat commanders should coordinate with the ASOC or DASC and the Fire Support Coordinator (FSC) to assign priorities of fire, and all should remember to communicate.⁴² Similar to Colonel Belote, the authors clearly state the need for additional joint training to ensure that units practice like they will fight.

³⁹ Col Howard D. Belote, “Counterinsurgency Airpower: Air-Ground Integration for the Long War,” *Air & Space Power Journal*, (Fall 2006): 1, <http://www.airpower.au.af.mil/airchronicles/apj/apj2006/fal06/belote.html>.

⁴⁰ Belote, “Counterinsurgency Airpower: Air-Ground Integration for the Long War,” 2.

⁴¹ Belote, “Counterinsurgency Airpower: Air-Ground Integration for the Long War,” 6-9.

⁴² LtCol John Jansen et al., “The Tower of Babel? Joint CAS Operations in Afghanistan,” *Infantry*, January-February 2004, 39.

In his *Defense Studies* article “Airpower in COIN: Can Airpower Make a Significant Contribution to Counter-Insurgency?”, Derek Read makes a broader case for greater integration. He claims, “While the evidence indicates that airpower has a major part to play in counter-insurgency, it also indicates that successful execution depends on close integration with other counter-insurgency forces, both military and civilian.”⁴³ He proposes that the nature of COIN conflicts will most likely deny airpower creating a strategic effect on its own, but that fact shouldn’t reduce the contribution that airpower does make to the fight.⁴⁴ He asserts that the integration of airpower with the other military forces to ensure a secure environment may be viewed as a strategic success in and of itself. He concludes with two recommendations: 1) that airpower must be fully integrated into the planning, at all levels, and 2) that airmen must ensure that air doctrine properly addresses the dynamic nature of counterinsurgencies.⁴⁵

Finally, the issue of better integration between air and ground forces extends beyond US military boundaries. The French have learned that the terrain and difficulty of operations in Afghanistan demands closer integration of their air and ground forces, especially when it involves close air support. They are seeking to increase their capabilities along these lines and to ensure they are properly prepared to meet the challenges of continuing operations in Afghanistan. In fact a recent *Defense News* article states that the French want to move beyond traditional air-ground integration and use the term “air-ground joint interdependence” to define the level of integration they are seeking.⁴⁶

The two themes as presented here, centralized control and decentralized execution in COIN and the requirement for closer integration between air and ground forces, form the backbone of the argument for this paper. The sad fact is that these issues are not new; they have been germane since the US first employed airpower in a COIN conflict. While the current conflicts have highlighted these themes again, the US must seek to relearn

⁴³ Derek Read, “Airpower in COIN: Can Airpower Make a Significant Contribution to Counter-Insurgency?” 131.

⁴⁴ Read, “Airpower in COIN: Can Airpower Make a Significant Contribution to Counter-Insurgency?” 147.

⁴⁵ Read, “Airpower in COIN: Can Airpower Make a Significant Contribution to Counter-Insurgency?” 147.

⁴⁶ Pierre Tran, “Afghanistan Ops Highlight Need For Jointness in Close Air Support,” *Defense News*, 11 May 2009, <http://mobile.defensenews.com/story.php?i=4083044&c=FEA&s=SPE.html> (accessed 23 February 2012).

past lessons, or at a minimum take into account the previous lessons learned, modify them according to technological advances, and reapply them as required to ensure success in the current or future counterinsurgency conflicts.

The purpose of this chapter was to provide foundational information to ensure a general understanding of the key topics within this paper and to provide insight as to the discourse that is ongoing with regard to the thesis of this paper. The following two chapters will deliver an examination of the history of these themes and relate their relevance to today's COIN conflicts.



Chapter 2

Case Study 1 – US Marine Aviation In Nicaragua

Normally, all aviation attached to a small wars expeditionary force will operate from the main airdrome under centralized control. However, when distances are great and weather conditions uncertain, it may become advisable to detach aviation units to subordinate commands, to be operated from auxiliary airdromes.

USMC Small Wars Manual, 1940

The earliest lessons of aviation use in the conduct of counterinsurgency operations occurred in the late 1920's during the Second Nicaraguan Campaign in Nicaragua by the US Marines. Unlike previous operations in Haiti and the Dominican Republic where the Marines had been used more as a peacekeeping force enforcing martial law, Marines saw these operations as a significant advancement in the realm of warfare, and Marine aviation's first real test since the conclusion of World War I.¹ The ground force commanders and aviators established not only new working relationships, but new tactics, techniques, and procedures for the use of aviation in support of these counterinsurgency operations.² The dynamic nature of fighting an insurgent force, especially in a heavily forested and generally undeveloped country like Nicaragua in the 1920's, combined with aviation that was still in its embryonic stage, provided an incredibly worthwhile laboratory. The emerging technology of aviation and the fact that it was still a relatively "new" weapon system meant that aviators were continuing to refine exactly how aviation could impact the battlefield. The lack of enemy aviation or any real surface to air threat provided US Marine aviators with not only unhindered freedom to experiment with their aircraft, but also drove them to focus entirely on how they could best assist the forces on the ground. Combine this with the terrain of

¹ Peter B. Mersky, *U.S. Marine Corps Aviation 1912 to the Present* (Baltimore, MD: The Nautical & Aviation Publishing Company, 1997), 21.

² Richard Grossman, "Looks Suspicious: The US Marines Air Campaign against the Sandino Insurgents of Nicaragua 1927-1933," in *Air Power, Insurgency and the "War on Terror"*, ed. Dr. Joel Hayward (Lincolnshire, UK: Royal Air Force Centre for Air Power Studies, 2009), 87.

Nicaragua and an insurgent force that enjoyed a high degree of mobility tied to few locations that could be independently attacked (i.e. lack of strategic targets) and aviation found that there were few opportunities to decisively engage the enemy without the assistance of ground forces.³

The lessons learned by the Marines – both on the ground and in the air – would become the foundation for the Marine Corps Small Wars Manual that has been often consulted in today's conflicts in Iraq and Afghanistan, as well as the basic formula for air ground teams in World War II.⁴ Using Nicaragua as a case study I will show that the Marines considered aviation a critical capability in the counterinsurgency struggle but that they learned quickly that control of aviation needed to be decentralized. I will provide a brief overview of the Nicaraguan conflict for general reference, while examining four specific events that highlight the key aspects of aviation in the conduct of counterinsurgency operations. I will then discuss the major lessons that the US Marines learned from their operations and how those lessons clearly influenced the Small Wars Manual.

In late September 1926 the United States arranged a truce in Nicaragua between the Liberals and Conservatives who had been battling since a revolt by the Conservatives in October of 1925. At the conclusion of the truce an interim government was established with Adolfo Diaz as the acting President until the newly planned elections were held in 1928.⁵ Since the interim government was constitutional and hence considered legitimate it was quickly recognized by the United States.⁶ When President Diaz' attempts to end the revolution failed and the Liberals refused to obey the interim government and lay down their arms President Diaz appealed for full-scale American intervention.⁷

³ This relates in some degree to the issue of intelligence. Ideally in Irregular Warfare intelligence drives operations, especially when it comes to identifying and capturing high value targets/personnel. In Nicaragua there was a very limited intelligence apparatus and what there was primarily derived from ground operations. In effect operations drove intelligence and hence aviation relied on ground forces to identify and assist in attacking enemy positions, troop concentrations, etc.

⁴ James S. Corum and Wray R. Johnson, *Airpower in Small Wars* (Lawrence, KS: University Press of Kansas, 2003), 12.

⁵ Bernard C. Nalty, *The United States Marines In Nicaragua*, (Washington DC: Historical Branch, G-3 Division, Headquarters, US Marine Corps, 1968), 13.

⁶ Nalty, *The United States Marines In Nicaragua*, 13.

⁷ Nalty, *The United States Marines In Nicaragua*, 13.

On 6 January 1927 Marines and seamen from the USS Galveston had come ashore to protect foreigners living in Managua and then on 10 January 1927, following the death of an American citizen in Nicaragua, President Coolidge told Congress that he would take all actions necessary to protect American interests in Nicaragua.⁸ On 1 February 1927 a US Marine battalion arrived and relieved Nicaraguan government troops of the responsibility to defend the capital, Managua. By early March there were more than 2000 Marines serving in Nicaragua and their mission was to maintain order within the country and establish and train the Guardia Nacional de Nicaragua (GNN), which was the constabulary force of the legally constituted government of Nicaragua.⁹

While one of the senior Liberal generals, General Moncada, was willing to yield and support the American reconstruction effort, he was unable to control all of the irregular forces that had enlisted with the Liberal cause.¹⁰ The elements of the liberal forces that would not lay down their arms would have to be dealt with accordingly. One of the liberal rebel leaders, Augusto Sandino, refused to put down his arms and was labeled a bandit. While Sandino had originally been opposed only to the new Nicaraguan government, his dissatisfaction eventually extended to the United States and all outside interference in Nicaraguan affairs. Augusto Sandino led his bandit force, called Sandinistas, into the mountainous rural areas outside of Managua and began an insurgency against the government and US forces.

The first Marine units to arrive in Nicaragua were 2nd Battalion, 5th Marine Regiment and Observation Squadron 1 (VO-1M). VO-1M, commanded by Major Ross E. Rowell, consisted of eight Officers, 81 enlisted Marines, and six DeHavilland (DH-4B) aircraft. The mission of the Marine force was to re-establish a Nicaraguan National Guard type force and assist in ending the insurgency of Sandino. This mission would be different from previous Marine experiences in Latin America. Unlike the Marines' prior experiences in Haiti and the Dominican Republic, this mission was in support of the government of Nicaragua against an entity that was seeking to alter the newly established political situation there. It would also be conducted jointly, with Marine units and the

⁸ Nalty, *The United States Marines In Nicaragua*, 14.

⁹ Nalty, *The United States Marines In Nicaragua*, 14.

¹⁰ Nalty, *The United States Marines In Nicaragua*, 17.

newly formed Guardia Nacional de Nicaragua units combining and conducting all operations together.

The Marine effort in Nicaragua took the form of two distinct phases of operations against the insurgency. The first phase was a strategy of dividing up Nicaragua into a series of economic areas that were further divided into districts. These districts were then garrisoned by GNN units with the goal of keeping insurgents from operating within their districts.¹¹ This task was difficult as the forces were spread extremely thinly across Nicaragua and had little ability to conduct any operations other than garrisoning the cities and towns that they occupied. Aviation played a large role in an economy of force type mission and in keeping the garrisons supplied. As was to be seen in Ocotal, the garrisons presented inviting targets for Sandino's forces.¹²

The second phase was a strategy with a more offensive posture. Critical districts, either to the central government or economic centers, maintained their garrisons as did those with higher levels of insurgent activity. In the more pacified districts force levels were reduced, allowing units free from garrison duty to undertake offensive operations to track down the insurgent forces.¹³ As with the first strategy, aviation facilitated this change in force posture by allowing smaller units to garrison the districts because air support was available if insurgent forces attempted to engage them. With fewer units conducting the garrison missions and more units conducting offensive operations, communications and coordination of action became increasingly difficult. Typically this drove the aviation element to make positive communication contact with every station in high insurgent activity areas, as well as with the various ground patrols.¹⁴ As Major Rowell would later point out, "It fell to the lot of aeroplanes to bind the organization together, to make it a whole, and to make it possible to function as an organization."¹⁵ General Vernon E. Megee, a Marine aviator who served in Nicaragua, would later state,

The successes of 1928, as weighed against the failures of 1927, may be attributed to: (1) a more nearly adequate force; (2) better organization with

¹¹ Keith B. Bickel, *Mars Learning: The Marine Corps' Development of Small Wars Doctrine, 1915-1940* (Boulder, CO: Westview Press, 2001), 167.

¹² Bickel, *Mars Learning: The Marine Corps' Development of Small Wars Doctrine, 1915-1940*, 168.

¹³ Bickel, *Mars Learning: The Marine Corps' Development of Small Wars Doctrine, 1915-1940*, 168.

¹⁴ Capt Evans F. Carlson, "The Guardia Nacional de Nicaragua," *Marine Corps Gazette*, August 1937, 16.

¹⁵ Grossman, "Looks Suspicious: The US Marines Air Campaign against the Sandino Insurgents of Nicaragua 1927-1933," 85.

decentralized control of operations to area commanders; (3) more competent leadership; and (4) a better supply system which included improved air transport. The increasingly important part played by the aviation arm in both combat and logistics was a determinate factor, not to be overlooked.¹⁶

During operations in Nicaragua there were four specific events that occurred that would be the proving ground for the use of aviation in conducting counterinsurgency operations. These events would highlight the value of aviation in these types of operations and provide valuable lessons learned in terms of the coordination and communication required between aviators and ground force commanders. They would also highlight the need for all commanders to be equally versed in ground and air operations, to ensure that each was aware of and understood the capabilities and limitations of each other's forces. This familiarity would significantly enhance the capabilities of both forces and provide the valuable insights that would form the basis for the Small Wars Manual that would be initially published in the years prior to World War II.

Furthermore these events would highlight the fact that in its infancy aviation support to counterinsurgency was conducted in a decentralized manner with aviation units supporting ground forces at the small unit tactical level.¹⁷ An aviator's knowledge of the terrain and the general difficulties faced by the ground forces in fighting the insurgents enhanced their ability to provide needed support. The close interaction between pilots and ground forces also provided a level of understanding and awareness that not only gave the pilots better overall situational awareness, but also provided the ground forces with a sense of confidence in these new machines and their operators. It also ensured that the pilots had a thorough understanding of the situation faced by the troops on the ground in terms of enemy tactics, techniques, and procedures. The four

¹⁶ LtGen Vernon E. McGee (Ret.), "Guerrilla Lessons From Nicaragua," *Marine Corps Gazette*, June 1965, 36.

¹⁷ It is important to note that these concepts were new and there was no doctrine yet established as to how to employ airpower or conduct a counterinsurgency. What occurred in Nicaragua reflects the adaptive nature of Marines and their willingness to focus on mission accomplishment through trial and error. General Vernon E. McGee (Ret.) states in a *Marine Corps Gazette* article in 1965, "Undeterred by any necessity for counter-air operations, and untempted by any 'wild blue yonder' schemes of semi-independent strategical forays, the Marine flyers buckled down to their primary mission of supporting Marine ground forces."

events that were to be of such great importance were Ocotal, Quilali, El Chipote, and Puerto Cabezas.¹⁸

The first event that highlighted the integration of aviation and ground operations was the battle of Ocotal which began on 0115 hours on 16 July 1927.¹⁹ A joint patrol of Marines and GNN had been pursuing Sandino's forces into the northern area of Nicaragua where they knew he was conducting operations and attempting to elude the government. Sandino had a fairly large force of approximately 200 insurgents and decided to attack the Marine/GNN force that had stopped in Ocotal and established a post. While this attack was underway, two Marine aircraft flew over the post and saw that they were under siege. The ground force had utilized air panels to communicate their situation to the pilots and the pilots were able to strafe the insurgent positions. One of the pilots even landed on a nearby field and was able to gain additional situational awareness from a local who had come to view the aircraft.²⁰ When the two pilots were nearing the end of their fuel they returned to their base and briefed their Squadron Commander, Major Rowell about the situation in Ocotal. Shortly thereafter they launched five planes loaded with simple bombing racks under each wing and proceeded to strafe and bomb the insurgents attacking the Ocotal post. This tactical innovation of dive bombing and strafing attack broke the rebels attack and the ground force was able to maintain control of the town.²¹ "Thus ended what probably deserves to be called the first Marine air-ground combined action."²² Major Rowell stated later that, "The Ocotal fight was the first important engagement and continues to stand as the most spectacular one of the campaign."²³

This battle highlighted the responsiveness and flexibility of airpower to support ground forces. Not only did the aviators provide immediate assistance, they were able to

¹⁸ The four events mentioned here are what the Marines that served in Nicaragua during this conflict cite as the events that most greatly impacted their thoughts and actions in terms of conducting "small wars", or irregular warfare. They are presented to provide a better context through which to understand the lessons learned, and ultimately captured in the Small Wars Manual, regarding the employment of airpower.

¹⁹ Nalty, *The United States Marines In Nicaragua*, 16.

²⁰ Nalty, *The United States Marines In Nicaragua*, 17.

²¹ Allan R. Millett, *Semper Fidelis: The History of the United States Marine Corps* (New York, NY: The Free Press, 1991), 247.

²² LtCol Edward C. Johnson, *Marine Corps Aviation: The Early Years 1912-1940* (Washington DC: History and Museums Division, Headquarters, US Marine Corps, 1977), 56.

²³ Maj Ross E. Rowell, "Annual Report of Aircraft Squadrons, Second Brigade, US Marine Corps, July 1, 1927 to June 20, 1928," *Marine Corps Gazette*, December 1928, 250.

follow through with a second attack after returning to base to refuel and rearm. The complex terrain, long distances, and decentralized operations of the ground forces meant that aircraft were the only legitimate option to provide support. This fact alone endeared the ground forces to the aviators and quickly established airpower's value in counterinsurgency operations.²⁴ This battle also emphasized the need for pilots and ground forces to have multiple means of communication to ensure that both entities were able to provide information to each other. The aviators, utilizing the ultimate high ground, were able to provide the ground forces with significant information on the terrain ahead of them as well as enemy locations. Following this battle Major Rowell would ensure that aviators were present whenever ground commanders were planning operations and that a representative from the ground forces met planes landing at advanced fields to coordinate and pass information.²⁵ Following this battle aircraft would be utilized to provide over watch on all ground force movements and operations.²⁶

The second significant event occurred on 30 December 1927 as Marine and GNN patrols attempted to locate and destroy the Sandinista base of operations called El Chipote.²⁷ Two patrols that had been making their way to El Chipote came under attack from rebel forces just south of the town. The Marines and GNN had been conducting patrols in preparation to begin their assault on the Sandinistas' hidden base of El Chipote when they were forced to occupy defensive positions in Quilali to tend to their wounded. The Sandinista forces laid siege to the town in an attempt to destroy the Marine and GNN forces. Aviation was critical in assisting the ground forces in moving to the town by strafing the Sandinista forces.

Given the terrain and the desperate nature of the casualties, there was no time for a relief column to form and travel to Quilali, so the decision was made to create a small landing field that an aircraft could utilize to land and pick up the casualties. Lieutenant Schilt made a total of ten flights throughout 6, 7, and 8 January, picking up the wounded and delivering supplies while under fire in an aircraft that hadn't been designed with brakes (Marines on the ground had to grab hold of the wings once the aircraft touched

²⁴ Charles W. Boggs Jr., "Marine Aviation: Its Origins and Growth," *Marine Corps Gazette*, May 1956, 17.

²⁵ Maj Ross E. Rowell, "Aircraft in Bush Warfare," *Marine Corps Gazette*, September 1929, 184.

²⁶ E. H. Brainard, "Marine Corps Aviation," *Marine Corps Gazette*, March 1928, 28.

²⁷ Nalty, *The United States Marines In Nicaragua*, 21.

down to drag it to a stop).²⁸ This was the first medical evacuation of wounded personnel in American aviation history.²⁹ Lieutenant Schilt was later awarded the Medal of Honor for this feat.³⁰

The key learning point from this battle was the value of the close integration of air forces and ground forces. This can be clearly seen in two facets of air support. The first facet was the strafing and bombing of the enemy forces, which kept them at bay while the Marines and GNN forces reorganized and tended to their wounded. The second facet was the recovery of a lost patrol that had been in contact with Sandinista forces, through the efforts of a reconnaissance aircraft that assisted them in their movement back to friendly positions in Quilali. This integration would become the foundation for Marine Corps doctrine in regard to aviation, but it would also become a fundamental aspect of fighting counterinsurgency conflicts.

The third event that would influence the role of aviation in a counterinsurgency fight was at the rebel stronghold of El Chipote. While the initial attempt to destroy the stronghold had failed at Quilali, the goal of destroying this insurgent safe haven remained. Given the geographic advantage that El Chipote had as a “mountain redoubt” and the difficulty in approaching the stronghold unseen by the enemy due to the complex terrain, it became obvious that the scheme of maneuver would need to be changed. Ground forces would conduct aggressive patrolling and would attempt to herd the enemy forces back toward the fortress while Major Rowell and a flight of his squadron would strike the hill top.³¹ This strike proved highly successful, although it was obvious that Sandino was learning some fundamentals of anti-aircraft defense. Regardless, the attack scattered the defenders of the stronghold and the ground patrols were then able to reach the fortress with only limited resistance. Although Sandino and a large number of his troops had escaped, a large quantity of supplies was captured.

The key element in this engagement was the use of airpower as the main effort with the ground forces in a supporting role. It pitted the strengths of airpower against the weaknesses of the insurgents while utilizing ground forces to shape the battlefield. The

²⁸ Millett, *Semper Fidelis: The History of the United States Marine Corps*, 249.

²⁹ Bickel, *Mars Learning: The Marine Corps' Development of Small Wars Doctrine, 1915-1940*, 177.

³⁰ Nalty, *The United States Marines In Nicaragua*, 21.

³¹ Nalty, *The United States Marines In Nicaragua*, 22.

utility of aviation in attacking a target and facilitating the maneuver of the ground forces was a lesson that would be clearly imprinted upon the psyche of the Marines.

The final event of this conflict that highlighted the key aspects of aviation in the conduct of COIN operations occurred in, and around, the town of Puerto Cabezas. Puerto Cabezas is located on the eastern coast of Nicaragua and served as the Marine command post for the Eastern Area. This area, which included the Coco River basin, was filled with thick jungles, swamps, and rough terrain. It was crisscrossed by numerous rivers and offered few suitable sites for establishing landing fields.³² Outside of the coastal portion of the area movement through the jungles and swamps was highly restrictive and extremely difficult.³³

Major Harold H. Utley, the Eastern Area commander, had predicted that Sandino's forces would move east after his stronghold at El Chipote had fallen.³⁴ When he received confirmation that insurgent activity in the Eastern Area was increasing he requested aviation support to facilitate operations in his area.³⁵ Major Rowell, the Marine Squadron Commander, had established advanced landing fields within the Western and Northern Areas of Nicaragua but the distances from those fields to the Eastern Area were too great.³⁶ In late April 1928 Major Rowell detached three OL-8 amphibian planes and their crews from his squadron in Managua, assigned them to the Eastern Area to operate from Puerto Cabezas, and attached them to Major Utley's forces.³⁷ This command arrangement proved highly effective and Major Utley's forces, aided by air support, succeeded in driving Sandino's forces back towards Honduras by late summer.³⁸

This event highlights the concept of decentralized control of airpower in counterinsurgency operations. Major Rowell's squadron, which was already conducting operations in a decentralized control manner, further decentralized control by

³² Rowell, "Annual Report of Aircraft Squadrons, Second Brigade, US Marine Corps, July 1, 1927 to June 20, 1928," 254.

³³ Maj Merritt A. Edson, "The Coco Patrol," *Marine Corps Gazette*, February 1937, 46.

³⁴ Nalty, *The United States Marines In Nicaragua*, 23.

³⁵ Nalty, *The United States Marines In Nicaragua*, 23-24.

³⁶ Rowell, "Annual Report of Aircraft Squadrons, Second Brigade, US Marine Corps, July 1, 1927 to June 20, 1928," 248.

³⁷ Nalty, *The United States Marines In Nicaragua*, 24. Edson, "The Coco Patrol," 35.

³⁸ Mersky, *U.S. Marine Corps Aviation 1912 to the Present*, 21.

permanently assigning a section of aircraft to directly support Major Utley's forces. Given an elusive enemy operating in complex and difficult terrain it demonstrated a method to maximize the flexibility and responsiveness of airpower to support ground forces by placing aviators and their aircraft under the command of the ground force commander. It also highlighted the value of the lessons learned by the Marines regarding the importance of the close integration of air and ground forces which facilitated the planning, coordination, and execution of Eastern Area operations.³⁹

At the conclusion of operations in Nicaragua, the Marines had learned many lessons regarding the use of aviation. In an article in the Marine Corps Gazette, Major Rowell stated the nature of the terrain and distances that the rebels had traveled had made aviation an extremely valuable asset in the conflict.⁴⁰ He further commented on the fact that it had been critical to have direct contact with the ground forces as there had been times when the insurgents had been successful in concealing themselves from aerial observation.⁴¹ Another critical lesson was that air forces and ground forces could operate in a synchronized manner if they planned and operated as a single entity, each aware of the other's capabilities and limitations. The effectiveness of aviation had been measured in terms of effects upon the enemy – whether that meant direct engagement of the enemy through strafing or bombing, or through the support to ground forces, which allowed them to successfully locate, close with, and destroy the enemy. Major Rowell stressed that all pilots and observers should become intimately familiar with all aspects of the enemy, to include their organization, equipment, and habits.⁴² Marine pilots had been able to provide the eyes that enabled the ground forces to locate and track enemy concentrations and movements.⁴³ Finally, one of the most important lessons learned

³⁹ Major Utley would later be one of the primary authors of the US Marine Corps Small Wars Manual.

⁴⁰ Rowell, "Annual Report of Aircraft Squadrons, Second Brigade, US Marine Corps, July 1, 1927 to June 20, 1928," 248.

⁴¹ Rowell, "Annual Report of Aircraft Squadrons, Second Brigade, US Marine Corps, July 1, 1927 to June 20, 1928," 248-249.

⁴² Wray R. Johnson, "Airpower and Restraint in Small Wars: Marine Corps Aviation in the Second Nicaraguan Campaign, 1927-33," in *US Marines and Irregular Warfare, 1898-2007: Anthology and Selected Bibliography*, compiled by Col Stephen S. Evans. (Quantico, VA: Marine Corps University Press, 2008), 60.

⁴³ Nalty, *The United States Marines In Nicaragua*, 32.

from operations in Nicaragua was that Marine aviators and infantrymen had learned how to function smoothly as a unified team.⁴⁴

Whether it was due to the nature of the conflict in Nicaragua, the previous experience of utilizing aviation in combat during World War I, or the previous experiences in Latin America, the value and maturity of aviation was greatly enhanced during this period. Without formal doctrine and with aviators and ground forces who were willing to try almost anything to better accomplish the mission, the potential of aviation in COIN was realized. In summing up the Marine experience in Nicaragua, specifically with respect to aviation, Allan Millett in his book *Semper Fidelis: The History of the United States Marine Corps* said, “One decided advantage in the campaign was the availability of Marine aircraft for reconnaissance, close air support, communications, and supply. Small Marine Squadrons have assisted the Marine brigades in Hispaniola with all of these services in the most primitive and limited form, but Marine aviation came of age in its support of ground troops in Nicaragua.”⁴⁵ This ‘coming of age’ can be clearly seen when looking at a simple statistic – during a four month period in 1929 and 1930 the Marine squadron flew more than 1000 missions including support to combat patrols, transporting mail, collecting aerial photos, and delivering more than 250,000 pounds of cargo.⁴⁶ The importance of aviation in supporting operations, especially operations as they were in Nicaragua, was not lost on the Marines.⁴⁷

A Review of the Organization and Operations of the Guardia Nacional De Nicaragua, prepared by a board directed by the Commandant of the Marine Corps following the conclusion of operations in Nicaragua, states,

A siege was impossible for the bandits, for sooner or later the planes would be sure to arrive and no bandit group would stand a bombing attack from the air without scattering and taking cover. Hence, it was possible to leave towns exposed with small garrisons, which were safe so long as they did not permit themselves to be surprised, as because of the planes, the bandits were unable to continue their attacks for more than a few hours during daylight. The planes were also useful in slowing down bandit groups on the march as they would invariably scatter and take cover from air observation. They were also useful in denying certain sections to the

⁴⁴ Nalty, *The United States Marines In Nicaragua*, 34.

⁴⁵ Millett, *Semper Fidelis: The History of the United States Marine Corps*, 252.

⁴⁶ Millett, *Semper Fidelis: The History of the United States Marine Corps*, 256.

⁴⁷ Millett, *Semper Fidelis: The History of the United States Marine Corps*, 263.

bandits who avoided locations where the planes were operating, and fear of the planes kept them generally clear of the open country.⁴⁸

The other unique aspect of operations within Nicaragua was that due to the terrain, vegetation, and distances involved the recent advances in aviation and aircraft would be of great value. At this time radio communications were also in their infancy, so the majority of aircraft did not have radios and the small portable radios the ground forces had were of negligible use in the type of terrain they were operating in.⁴⁹ This placed a reliance on the written communications both before, during, and after missions and the use of air panels⁵⁰ by ground forces to provide the required situational awareness to direct the pilots to execute the necessary supporting operations. It is important to note, however, that this actually worked both ways. The difficult terrain combined with the highly mobile insurgents often meant that the ground forces were reliant on the aviators for information pertaining to enemy location, possible ambushes, and information about terrain obstacles that were not clearly annotated on the maps (which at that time were of extremely poor quality). It should also be noted that during this period there was no higher level aviation coordination element. The Squadron Commander communicated directly with the ground force commander and planned his support operations accordingly. Given the limited number of aircraft and the distance between certain operations they deconflicted schedules and prioritized their efforts at the lowest level - what we would call bottom up planning today.⁵¹

The lessons learned in Nicaragua, and there after captured in the Small Wars Manual, clearly articulate the need for aviation to decentralize to support the ground forces in the conduct of counterinsurgency operations. The Small Wars Manual even seems to take into consideration the rapidly advancing nature of aviation when it comments on the newer aircraft etc. It also highlights the importance of the relationship between aviators and their ground force brothers in terms of developing the close

⁴⁸ Maj Julian C. Smith et al., *Nicaragua: A Review of the Organization and Operations of the Guardia Nacional De Nicaragua* (Washington DC: US Marine Corps Headquarters, 1974), 41.

⁴⁹ LtCol Jon T. Hoffman, *Chesty: The Story of Lieutenant General Lewis B. Puller, USMC* (New York, NY: Random House, Inc., 2001), 75.

⁵⁰ Air panels are typically red, orange, or white rectangular pieces cloth or fabric that are placed on the ground as visible reference points to pilots.

⁵¹ Rowell, "Aircraft in Bush Warfare," 11.

relationship required to be effective in this type of conflict.⁵² While these lessons were learned nearly 100 years ago, they were clearly forgotten less than 50 years later when the United States found itself facing another insurgency in the jungles of Vietnam. Sadly, the lessons of the Nicaraguan conflict were either mistakenly overlooked or purposely avoided in the execution of counterinsurgency operations in Vietnam. “It was against the rebels that the Marines had their first taste of combat in Nicaragua; it was strangely suggestive of events half a world away and forty years in the future.”⁵³

The publication of the *Marine Corps Small Wars Manual*, written in 1935 and published in 1940, captured the critical lessons that the Marines had learned throughout their time conducting peacekeeping and counterinsurgency operations prior to World War II. These lessons have proved to be of enduring value and yet sadly too often overlooked. What the Marines learned in these conflicts, specifically Nicaragua, can clearly be seen in the chapter dedicated to aviation. The introduction to the chapter clearly identifies four key elements of aviation in counterinsurgency operations: air opposition in most counterinsurgencies is negligible and thus airpower is able to concentrate almost entirely on the close support of ground units, aviators and ground commanders must be thoroughly knowledgeable on the tactics, hazards, and problems of the other, the employment of aviation in these conflicts consists of many small units of aviation operating over a large area, and the freedom from enemy air opposition provides an air force the ability to operate in smaller, independent units.⁵⁴ It further discusses the use of air bases and advocates for the use of numerous auxiliary airdromes, advanced landing fields, and emergency landing fields that facilitate the air commander maintaining close contact with the force commander and staff, as well as facilitating air support to subordinate commanders and their units.⁵⁵

In the section that discusses the general conduct of air operations, within the Control and command paragraph, it clearly states, in obvious reference to the terrain, weather, and dispersed nature of operations in Nicaragua, that,

⁵² Edson, “The Coco Patrol,” 13.

⁵³ Mersky, *U.S. Marine Corps Aviation 1912 to the Present*, 21.

⁵⁴ Fleet Marine Force Reference Publication (FMFRP) 12-15, *Small Wars Manual*, 22 December 1990, Ch 9, pg 1.

⁵⁵ FMFRP 12-15, *Small Wars Manual*, Ch 9, pgs 5-6.

Normally, all aviation attached to a small wars expeditionary force will operate from the main aerodrome under centralized control. However, when distances are great and weather conditions uncertain, it may be advisable to detach aviation units to subordinate commands, to be operated from auxiliary airdromes.⁵⁶

Obviously the reason for advocating the option of detaching aviation units to subordinate commands was to provide more responsive support to the ground forces and to ensure that the aviators and ground force commanders were able to coordinate their operations. This decentralization also facilitated the understanding between the aviators and ground force commanders in regards to mission requirements, expectations, and overall concerns about the operation.⁵⁷

Lastly, in the section of the manual titled “Employment of Reconnaissance Aviation” it defines a type of mission termed the “Infantry Mission.” It states,

Perhaps the best definition of the term “Infantry Mission,” as understood for small wars refers to a daily or periodic air patrol which flies over a given area and contacts all the ground patrols and station garrisons located within this area. Tactical reconnaissance is conducted by these air patrols incident to their passage from one ground unit to another, and they are prepared to attack hostile ground forces upon discovery. Their primary mission, however, is to maintain command liaison with detached units of friendly ground forces, and to keep these forces informed of the situation confronting them.⁵⁸

Certainly this type of mission only occurs when there is little to no enemy air opposition, but the degree to which this facilitates the actions and operations of ground force commanders is infinite.

The Small Wars Manual clearly captured the lessons learned from operations in Nicaragua and used them to form the basis for conducting counterinsurgency operations –

⁵⁶ FMFRP 12-15, *Small Wars Manual*, Ch 9, pg 9.

⁵⁷ This concept as found in the Small Wars Manual can be clearly linked to Major Rowell’s recommendation in his article in the Marine Corps Gazette, Sept 1929, titled “Aircraft in Bush Warfare.” In the article he states, “The senior air officer should have the same dual staff and command status that is given the artillery commander in the infantry division. In other words, the senior air officer should actively command the air organization and at the same time serve as the advisor to the commander on air matters. The commander will desire to have close personal contact with the air officer, who is in touch with the major activities of the entire organization. The air squadrons will operate in support of the ground organizations and also independently. In certain special situations, planes may be attached temporarily to ground units. As a general rule this practice should be discouraged. Better support can be given in most cases if the control is centralized.”

⁵⁸ FMFRP 12-15, *Small Wars Manual*, Ch9, pg 15.

specifically in regard to the utilization of aviation. When the United States found itself embroiled in another counterinsurgency thirty years later it is a wonder why the manual was consulted and its lessons taken to heart. In the following chapter I will examine why the lessons of utilizing aviation in Nicaragua were not put to better use.



Chapter 3

Case Study 2 – Barriers To Decentralization In Vietnam

At the tactical level, air support requires a decentralized command and control system that gives supported units immediate access to available combat air assets and to information collected by air reconnaissance and support assets.

US Army Field Manual No. 3-24

Marine Corps Warfighting Publication No. 3-33.5

More than 30 years after the United States successfully concluded its counterinsurgency operations in Nicaragua it found itself entering another counterinsurgency conflict, this time in Vietnam. When the United States entered into the Vietnam War it was in the middle of the Cold War with the USSR and the policy of containment – denying the spread of communism – was in effect. The early years of the Vietnam War would prove to be a complex and difficult challenge for the United States, and one far different from its most recent combat experiences of World War II and Korea.¹ The military services of the United States had learned many valuable lessons from these two major, conventional conflicts, which they had approached as major combat operations (MCO). The US had incorporated those lessons into the training and equipping of its armed forces as the Cold War pitted the US and its NATO allies against the USSR and its Warsaw Pact allies in a face-off of conventional forces backed by nuclear weapons. Throughout this period, each of the United States' armed forces services had focused its preparations on fighting this large scale, conventional war of attrition, utilizing the lessons learned from World War II and Korea.² As a result, when the United States entered into the Vietnam War it was facing a conflict at the opposite end of the warfare spectrum from the one it had prepared for.³ Given that the US had

¹ Dr. Ian Horwood, *Interservice Rivalry and Airpower in the Vietnam War* (Fort Leavenworth, KS: Combat Studies Institute Press, 2009), 180.

² Horwood, *Interservice Rivalry and Airpower in the Vietnam War*, 11.

³ Gen William W. Momyer (Ret.), *Airpower in Three Wars*, (Maxwell AFB, AL: Air University Press, 2003), 279.

been successful in its last counterinsurgency campaign, Nicaragua, and the US Marine Corps had published its Small Wars Manual in 1940 as a result of the lessons learned in that conflict, the question remains why the US entered Vietnam without consulting that manual or implementing the lessons learned from Nicaragua in the conduct of the early stages of Vietnam, specifically regarding the employment of airpower.⁴

Given the similarities between the conflict in Nicaragua from 1927 to 1933 and in Vietnam from 1965 to 1968, it is difficult to understand why the lessons learned in Nicaragua were not applied in Vietnam. The Small Wars Manual clearly prescribed a number of specific actions to be undertaken in regard to the employment of airpower in counterinsurgency conflicts, yet it seems that these lessons were overlooked or ignored all together. This chapter will seek to examine and understand the reasons for this failure to apply the lessons learned in Nicaragua regarding airpower and the employment of air forces in a decentralized manner – which led to a successful conclusion of that conflict – to the situation in Vietnam. Further, I will examine the barriers that led to the failure to decentralize airpower in Vietnam in a manner similar to Nicaragua and determine if these barriers remain in place today and, if so, this will lay the foundation for considering the reasons for the reluctance of US air forces to decentralize airpower in the recent and current COIN conflicts. Given the fact that the Viet Cong, and later in the war the North Vietnamese Army, understood the need to utilize tactics that aimed to deny the US the advantage of airpower, there should have been an adaptation and a return to the lessons of Nicaragua. Yet the US remained locked into the conventional lessons learned from World War II, Korea, and the Cold War, even though the conflict they faced was obviously not a conventional conflict. I will examine these issues by scrutinizing the character and nature of the issues surrounding the employment of airpower during the early years of the Vietnam War.

I will begin this examination with a brief overview of the war and then provide an in depth look at the relevant factors and disputes regarding the employment of airpower and air forces by the US in Vietnam – specifically focusing on the barriers to the decentralization of those aviation assets in support of the ground forces. I will conclude this chapter with a summary of the key issues from the Vietnam conflict and how they

⁴ Corum and Johnson, *Airpower in Small Wars*, 227.

remain relevant in today's conflicts and may provide insight as to the hesitation of air commanders to decentralize their assets in the current COIN conflicts.

The Vietnam War is far too complex to attempt to provide even a brief overview of the conflict, in its entirety, in enough detail to provide a useful perspective within the scope of this paper. Given this fact, I will provide only an overview of that portion of the conflict that directly pertains to the topic of this paper to ensure the focus is clearly placed on those aspects relevant to my topic. This overview will narrow the timeframe of the war being examined to the three key years of Viet Cong insurgency, describe the character of the war during this period, examine the airpower employment issues that will be discussed, and provide a comparison of Vietnam during this time frame with that of Nicaragua.

First, the time frame of the Vietnam War that will be examined is from the initial entry of US ground forces in February 1965 until the Tet Offensive in January 1968.⁵ The primary reason for focusing on this period is that it is the only true insurgency versus counterinsurgency period of the conflict where the US employed ground and air forces. The period leading up to and including the introduction of US ground forces is highlighted by the fact that the Viet Cong were conducting an insurgency in South Vietnam and the US forces had been requested by the government of South Vietnam to assist in defeating this insurgency. The period 1965-1968 marks the portion of the conflict that Mao Tse-Tung, in his work *On Protracted War*, would describe as the second stage of a protracted war. The second stage is characterized by the use of guerilla warfare against the enemies' rear areas and those areas the enemy attempts to contest. Prior to 1965 the South Vietnamese government had been attempting to defeat the insurgency by the Viet Cong and had received assistance from the US government in the form of advisors and instructors, as well as limited airpower utilization, but no US ground forces. The Tet Offensive in 1968 would signify the conclusion of the second stage and the transition to the third stage, which is characterized by operations more conventional in nature, termed by Mao as positional and mobile warfare, which fall outside of the

⁵ CAPT John F. O'Connell (Ret.), *The Effectiveness of Airpower in the 20th Century; Part Three 1945-2000* (Lincoln, NE: iUniverse, 2006), 66.

scope of this paper.⁶ The general character of the war would change with the Tet Offensive, with the Viet Cong and NVA massing forces and engaging in direct, open, pitched battle with the South Vietnamese (ARVN) and US forces. However, this transition played into the type of warfare that the US was prepared for and preferred to execute: MCO. I have already conceded that the employment of airpower in conventional operations, or major combat operations, is not in question.

Second, as already mentioned above, during the period from 1965-1968 the conflict resembled the Nicaraguan conflict. As mentioned above, it was characterized by the use of guerilla tactics by the Viet Cong. The Viet Cong would seek to avoid any direct contact with South Vietnamese or US forces unless there was a clear advantage in doing so. They would utilize the difficult terrain, excellent concealment of the jungle, and the support of the rural population to conduct operations aimed at undermining the legitimacy of the South Vietnamese government.⁷ The actions of the Viet Cong clearly resembled the actions of the Sandinistas in Nicaragua and were aimed at maximizing the strengths of the Viet Cong force while minimizing the strengths of the South Vietnamese and US forces.⁸ Viet Cong forces would hide among the population and move about the South Vietnamese countryside seeking to avoid detection, observation, or engagement by government forces until they were able to conduct operations that guaranteed a high degree of success.⁹ Once their mission was complete they would disappear back among the population and retrograde back into the countryside until the next mission. A highly elusive enemy, they have been called one of the best insurgency forces ever seen.¹⁰ While the North Vietnamese Army (NVA) did play a large role in backing the Viet Cong, as well as conducting some limited operations in South Vietnam, they had not directly invaded South Vietnam.

Third, the focus of this paper, and specifically this chapter, is on the employment of air forces in fighting the Viet Cong insurgency in South Vietnam at the low

⁶ Mao Tse-tung, "On Protracted War," May 1938, *Selected Works of Mao Tse-tung, Vol II* (Peking: Foreign Languages Press, 1967), 210-219.

⁷ McGee, "Guerrilla Lessons From Nicaragua," 32.

⁸ Corum and Johnson, *Airpower in Small Wars*, 261.

⁹ John Schlight, *The War in South Vietnam: The Years of the Offensive 1965-1968* (Washington DC: Air Force History and Museums Program, 1999), 16.

¹⁰ Dale Andrade and James H. Willbanks, "CORDS/Phoenix: Counterinsurgency Lessons from Vietnam for the Future," in *US Marines and Irregular Warfare, 1898-2007: Anthology and Selected Bibliography*, 159.

operational and tactical levels of war. It will not cover Operation Rolling Thunder, or any of the larger strategic airpower campaigns conducted against North Vietnam, Cambodia, or Laos. It will also avoid any discussion of the employment of airpower at the operational or tactical levels of the conflict prior to the introduction of US ground forces or after the Tet Offensive. It is sufficient to include that those operations were being conducted as part of a larger strategy and had limited influence on the tactical employment of aviation by ground forces fighting the Viet Cong insurgency. However, it is worthwhile to note that the aviation assets being utilized for those operations would not have been decentralized to support ground forces in any case, as they served a different purpose. In a counterinsurgency conflict, strategic bombing and interdiction can still be of value, but the focus of this discussion is the airpower employed in direct support of the ground forces conducting COIN operations.

Finally, while this issue certainly applies to the role of ground forces, the focus of this paper is on the employment of airpower and air forces, and more specifically why the air forces did not seek to apply airpower in a more decentralized manner, applying lessons from Nicaragua to better support the ground forces in Vietnam. In South Vietnam, especially the early years prior to the Tet Offensive, there were no large conventional units maneuvering around the battlefield, or massive armor formations seeking to dominate key terrain. The air space over South Vietnam was not being contested and the US and South Vietnamese air forces had air superiority. Even the terrain in Vietnam resembled Nicaragua – long coastlines, heavy vegetation, and a large rural population. Aviators in South Vietnam even faced some of the same difficulties that the Marines had faced in conducting operations in Nicaragua: poor maps, complex weather patterns, dense wooded terrain with significant cover and concealment that the enemy could use to avoid detection and observation, and frequent communications difficulties with troops on the ground.¹¹

The utilization of US combat forces in Vietnam during the period of 1965-1968 was heavily influenced by a number of key factors. These factors drove the discussions and decisions that would shape the US commitment and provide the overall context by

¹¹ Ronald B. Frankum Jr., *Like Rolling Thunder: The Air War in Vietnam 1964-1975* (Lanham, MD: Rowman & Littlefield Publishers, Inc., 2005), 69.

which each of the services would prosecute operations. While there are numerous factors that contributed to the employment of air and ground forces, three specifically shaped the use of airpower in support of ground forces at the tactical level of the conflict. An examination of these three key factors will explain why aviation was not decentralized in support of the ground forces during the early stages of the Vietnam conflict. First, there was general disagreement as to whether the conflict the US was entering was a conventional conflict or a counterinsurgency conflict. Second, even when it was acknowledged that the conflict was indeed a COIN conflict, inter-service rivalry led to disagreement over which service actually had the overall responsibility for the conduct of the fighting and should therefore have been, the supported command. Lastly, the US Air Force had established a doctrinal concept of command and control based on lessons learned by the US Army Air Corps in World War II that specifically caused them to resist parceling out air to ground units.

The entry of US ground forces in Vietnam in 1965 brought to light the question of what the exact nature of the Vietnam conflict was.¹² While it was obvious that the Viet Cong were conducting an insurgency in South Vietnam, they were also able to mass their forces and conduct sizeable hit and run guerilla actions against South Vietnam government targets, infrastructure, and the South Vietnamese Army.¹³ While some of these actions were overt strikes that appeared conventional in execution, the Viet Cong's primary method of attempting to unify all of Vietnam as a communist state was through an insurgency, supported by North Vietnam.¹⁴ This led US planners into a debate over the best strategy to employ in assisting the South Vietnamese government to defeat the Viet Cong aggression and insurgency in order to secure their borders.¹⁵ Obviously any disagreement on the type of conflict one is entering makes determining the best strategy to employ in fighting that conflict extremely difficult, if not impossible. This lack of unified vision as to the exact nature of the conflict and confusion over strategy precluded finding the necessary foundation to unify action, clarify roles and responsibilities, and

¹² Horwood, *Interservice Rivalry and Airpower in the Vietnam War*, 71.

¹³ Austin Long, *On "Other War": Lessons Learned from Five Decades of RAND Counterinsurgency Research* (Santa Monica, CA: RAND Corporation, 2006), 43.

¹⁴ Martin van Creveld, *The Age of Airpower* (New York, NY: PublicAffairs, 2011), 379-381.

¹⁵ Momyer, *Airpower in Three Wars*, 26.

focus on desired end states.¹⁶ In the case of Vietnam this lack of agreement drove the US to fight the conflict it had prepared for instead of the conflict it was facing, with each service preferring to conduct operations which played to their strengths as a service.¹⁷

The US had been training and equipping its forces, as well as the South Vietnamese forces, to fight a traditional conventional conflict where the use of large ground forces backed by artillery and aviation would seek out the Viet Cong and destroy them through attrition.¹⁸ This had brought the US great success in World War II and had allowed for the successful end of hostilities in Korea. It was also what the US had been preparing for as a result of the Cold War and where the majority of its expertise lay.¹⁹ Certainly the debate about the type of conflict in Vietnam was influenced heavily by the type of conflict the US was prepared for. When all you have is a hammer, every problem looks like a nail. Those military leaders who understood the nature of COIN conflicts understood that they were difficult, expensive, and troop intensive conflicts that could linger on for years and hence preferred to avoid them.²⁰ Finally COIN forces require equipment, weapons, and systems that are vastly different than those the US was procuring during the climate of the Cold War. As a result there was a clear bias by the military services against entering into a conflict defined as a counterinsurgency, which would have been furthest from what they were prepared for.²¹

Within the US military, airpower in particular had developed a bias against counterinsurgency operations. At its foundation was the question of the perceived lack of value of airpower in COIN, as well as the fact that US air forces had not procured aviation assets and platforms designed for the challenges of COIN and had no desire to do so. During the early years of the Cold War, US airpower had shown a preference for multirole, high performance aircraft designed primarily to destroy large formations of enemy aircraft and armor in the most efficient and effective manner possible on a clearly

¹⁶ Donald J. Mrozek, *Air Power and the Ground War in Vietnam* (Maxwell AFB, AL: Air University Press, 1988), 52.

¹⁷ Mrozek, *Air Power and the Ground War in Vietnam*, 2.

¹⁸ Al Hemingway, *Our War was Different* (Annapolis, MD: Naval Institute Press, 1994), 54-55.

¹⁹ Col James R. Macklin Jr., "Air Power and Counterinsurgency: A Strategic Study in Efficiency" (strategy research project, US Army War College, 2010), 7.

²⁰ Galula, *Counterinsurgency Warfare: Theory and Practice*, 6-8.

²¹ Long, *On "Other War": Lessons Learned from Five Decades of RAND Counterinsurgency Research*, 43.

delineated battlefield.²² That was believed to be the only possible method to defeat such a large standing, manpower intensive force such as the USSR's. It was also understood that the high demand, low density nature of aviation assets would need to be centrally controlled to ensure that air assets were properly employed so as to ensure the most efficient and effective use of the limited air assets available.²³ As the threat from the Soviet Union remained valid, it further encouraged US airpower advocates to remain dedicated to fighting the conventional battles that would come with World War III instead of adjusting to a COIN conflict. By denying that Vietnam was a true counterinsurgency, and conversely advocating that it was a conventional conflict, US airpower would be able to continue to justify their procurement and training strategies.

The second barrier to decentralization of aviation in Vietnam stemmed from a mistaken perception of the role of aviation in a COIN conflict, leading to a battle over command relationships. Typically COIN conflicts, like Nicaragua, are troop intensive efforts that require troops on the ground to deny the insurgent's access to the population, resources, and freedom of movement. Thus, aviation has only a very limited ability to influence and is in a supporting role to the ground forces.²⁴ Hence the ground force commander owns the COIN fight and as the supported commander would direct all aspects of COIN operations.²⁵ This factor magnified the already contentious issues of inter-service rivalries as well as each service's concern over their share of the fiscal budget. Combined, these aspects directly challenged the airpower leaders of the Vietnam period along two distinct lines: the decisiveness of airpower and the justification of service independence by the US Air Force.

The first challenge with regard to the role of aviation in a COIN conflict was that it countered airpower advocates claims that airpower could be decisive in achieving victory if properly resourced and supported. Colonel James Macklin, USA, in his paper "Air Power and Counterinsurgency: A Strategic Study in Efficiency," claims airpower leaders were reluctant to subordinate the air forces to the ground forces for fear that this

²² Horwood, *Interservice Rivalry and Airpower in the Vietnam War*, 18.

²³ Momyer, *Airpower in Three Wars*, 43.

²⁴ Vick et al., *Air Power in the New Counterinsurgency Era: The Strategic Importance of USAF Advisory and Assistance Missions*, 74.

²⁵ Momyer, *Airpower in Three Wars*, 91.

would deny their ability to prove the value of aviation in determining the outcome of the conflict. They were also well aware that once in a purely supporting role aviation assets would be primarily utilized to provide close air support to ground forces which would further reduce what they perceived were their true capabilities to influence the outcome of a conflict.²⁶ It was also well known that the ground forces would prefer to utilize air assets for the closer in, tactical fight versus the longer range interdiction type missions. It would also deny air forces the ability to conduct targeting that they believed would contribute to the strategic achievement of end states which they ultimately felt would bring about victory more rapidly than seeking to destroy purely tactical targets.²⁷ This also heavily influenced the debate over whether Vietnam was a conventional conflict or a COIN conflict as the airpower advocates knew that if they concurred with the COIN approach, they were by default subordinating themselves to the ground forces.²⁸

The second challenge to the role of aviation in a COIN conflict that drove airpower advocates to deny decentralizing aviation assets was that it ran counter to their independent service perception and felt that it risked the very nature of the reasons for seeking service independence. If they were subordinated to the ground forces, and airpower was seconded to the Army then it would reinforce the argument for revoking the autonomy of the Air Force as a service, which they had so desperately striven to achieve. Airpower enthusiasts were wary of any mission set that would bring into question their autonomy or reduce the role they felt they had in achieving the strategic goals of the nation.²⁹

The final aspect of this issue concerns the inter-service rivalry between all of the US armed forces that existed during this time frame. With each service attempting to compete for its share of the defense budget there was little incentive to work together or compromise.³⁰ Each service viewed the problem from the perspective that any demonstrated willingness to cooperate or share would result in a loss of ability to justify their allotment of the budget. Each service had its method of conducting operations,

²⁶ Macklin Jr., "Air Power and Counterinsurgency: A Strategic Study in Efficiency," 10-14.

²⁷ Horwood, *Interservice Rivalry and Airpower in the Vietnam War*, 15-21.

²⁸ Mrozek, *Air Power and the Ground War in Vietnam*, 52-57.

²⁹ Horwood, *Interservice Rivalry and Airpower in the Vietnam War*, 14.

³⁰ Horwood, *Interservice Rivalry and Airpower in the Vietnam War*, 190.

using its own doctrine, and justified itself accordingly.³¹ This meant that if a service was willing to use another service's C2 system or accept their doctrine that it would invariably have given up its entrenched position.³² Each service was out to prove that it had the best method of conducting operations and thus deserved to continue to receive funding for its requests.³³ Encroachment on each other's perceived "turf" was cause for further infighting and less willingness to accept compromise.³⁴ Decentralizing airpower would have significantly weakened the US Air Force's position among the services by indicating that its doctrine was insufficient to meet the requirements of the conflict. It would have also validated the US Army's concerns over the responsiveness of close air support as well as the US Marine's argument for maintaining their aviation element.³⁵

The third barrier to decentralizing airpower in Vietnam were the lessons learned by the Army Air Corps in North Africa during World War II in regard to parceling out aviation in direct support of, and under the command of, ground force commanders.³⁶ The concerns over parceling out aviation stem from the potential loss of flexibility of airpower and risk of it being wasted by ground commanders who are only dealing with threats to their immediate front. Rebecca Grant, in her article "Penny Packets, Then and Now" remarks, "Superficially, World War II's penny packet disputes were about whether the land component leaders acknowledged the value and effect of centralizing air resources. The underlying problem was the contrast between the narrow (but urgent) tactical view of a small ground unit and the wider leadership view of the battlespace. Only senior commanders had the "big map" perspective of multiple ground units and areas beyond the front."³⁷ While certainly this lesson is valid, and absolutely appropriate in the context of World War II or any other major combat operation or conventional war, it loses its validity in a COIN conflict. Yet this fear of "penny packets of air" transformed itself into sacrosanct doctrine where even the perception of aviation being decentralized, or controlled by ground force commanders, was an immediate cry of foul

³¹ Horwood, *Interservice Rivalry and Airpower in the Vietnam War*, 79.

³² Horwood, *Interservice Rivalry and Airpower in the Vietnam War*, 185.

³³ Horwood, *Interservice Rivalry and Airpower in the Vietnam War*, 81.

³⁴ Horwood, *Interservice Rivalry and Airpower in the Vietnam War*, 94.

³⁵ Horwood, *Interservice Rivalry and Airpower in the Vietnam War*, 121-122.

³⁶ Mommyer, *Airpower in Three Wars*, 44.

³⁷ Rebecca Grant, "Penny Packets, Then and Now," *Air Force Magazine*, June 2010, 2.

by airpower enthusiasts.³⁸ Again, this led to a clear reasoning by airpower leaders to avoid considering Vietnam as a COIN conflict and maintain that it was a conventional conflict that could be conducted along conventional means.³⁹

The Vietnam War should have been a testing ground for the US military in demonstrating its COIN capabilities as captured by the Small Wars Manual. It should have been clear to see that the lessons learned by the Marines in Nicaragua were of great value and, if implemented, could have facilitated the defeat of the Viet Cong in South Vietnam. Specifically the value of aviation, employed in a decentralized manner to facilitate the actions of the ground forces in winning over the support of the population, could have been maximized. Certainly there was value in the strategic bombing of targets in North Vietnam, and certainly the air forces provided the required air support to the ground forces – these issues are not in question. But as this chapter has discussed there were obvious barriers to the implementation of aviation lessons learned from Nicaragua. The Viet Cong proved to be an enemy that understood how to reduce the advantage US technology gave its fighting forces, how to capitalize on the terrain, how to use rural networks, and how to maneuver close to their opponents to reduce the use of indirect fires and close air support. They also demonstrated an understanding of the length of time available between engaging US and South Vietnamese forces and the arrival of air support. Vietnam proved that the use of conventional forces to fight an unconventional enemy is extremely difficult, made even more difficult when those conventional forces attempt to employ conventional means to defeat that unconventional enemy. Granted, when the Viet Cong presented a conventional target they were no match for US or South Vietnamese forces, but when conducting guerilla, or insurgent, operations they quickly leveled the playing field.

If aviation had been decentralized would the outcome of Vietnam have been different? That counter-factual analysis would be based on a number of assumptions too difficult to prove. The issue at the heart of this paper is why it was not even attempted. Could the wide spread use of the Marine Corps' Combined Action Program have been more effective? Most likely, especially if the CAP units had aviation assets at their

³⁸ Mrozek, *Air Power and the Ground War in Vietnam*, 31.

³⁹ Horwood, *Interservice Rivalry and Airpower in the Vietnam War*, 7.

disposal 24 hours a day, 7 days a week, this would have mitigated the risk those Marine commanders accepted. Would the Army have continued to seek out their own rotary wing close air support platforms if the air forces had been willing to decentralize aviation assets? Again, more than likely. The real question that remains is why, after Nicaragua, the publication of the Small Wars Manual, and the dismal failure to achieve victory in Vietnam, is airpower still being centrally controlled while neither Operation Iraqi Freedom (after the initial defeat of the Iraqi forces) nor Operation Enduring Freedom are conventional, major combat operations?



Chapter 4

Implications and Conclusion

It is no longer a matter of the soldier making his plan for battle on the ground and then turning to see how the air can help him. Land and air operations must be deliberately planned to get the best out of each other; and the plan of campaign on the ground, whether in attack or defence, may be profoundly influenced by the air factor.

Sir J.C. Slessor

While the ongoing debates regarding counterinsurgency operations have yet to produce concrete results, the case studies present principles that should guide our employment of aviation in these operations.

Operations in Nicaragua proved the value and utility of airpower in conducting counterinsurgency operations. It provided the ground forces with significantly increased situational awareness and facilitated actions against insurgent groups. It also established the requirement for better training between aviators and ground commanders regarding each other's capabilities and limitations as well as the need to train and plan for missions in a joint manner. Finally Nicaragua highlighted the need for complete integration of airpower and ground forces so that they functioned as a unified team able to conduct operations in a synchronized manner. All of these factors allowed the ground forces and airpower to conduct operations in a decentralized and distributed manner, which is critical in counterinsurgency operations.

Vietnam demonstrated the criticality of understanding exactly what type of conflict is being entered into as this directly impacts how operations will be conducted. It highlighted the fact that a failure to conduct operations in a unified manner, regardless of the reason, may diminish overall effectiveness and risk mission accomplishment. Operations in Vietnam also showed an enemy that was able to exploit the gap between airpower and ground forces to its advantage. Finally, the lack of integration between airpower and ground forces denied the ground forces the ability to conduct operations in a decentralized and distributed manner.

The Nicaragua case, as a success, and the Vietnam case, as a failure, present substantial insight into the lessons that the US should have learned in fighting counterinsurgency conflicts. Yet, just as in Vietnam, the US military did not implement the principles from these cases when the US found itself engaged in not one, but two, counterinsurgency conflicts that have lasted for more than ten years.

One of the most important lessons that the US has now had to learn twice is that COIN is not MCO. MCO forces can conduct COIN operations but usually they will not do this well. The opposite is also true. What is needed is the agility, from both air and ground command and control, to rapidly transition from employing the principles of large scale MCO to employing the principles of small scale limited COIN, and everything in between. Military leaders will need to ensure that the services focus on the priorities as set by the national leadership, while at the same time ensuring that the recent lessons learned are not forgotten. Few potential enemies will have the ability or capacity to confront the US on an MCO basis in the near future, which means that COIN will remain relevant for some time. Fiscal constraints will deny any nation or military service the ability to acquire the equipment needed to conduct both of these mission sets, so military leaders and political leaders will need to determine the appropriate level of compromise and understand the implications of that decision.

Military commanders, both air and ground, need to have a better understanding of the operational environment and how they can best utilize their forces to achieve the desired end states. Commanders that are focused on their service doctrine or service philosophies over mission accomplishment need to reorient their focus. Ground force commanders need to understand the finer points of aviation employment and the concerns that airmen have in conducting tactical and operational level mission sets. They also need to better prioritize their requirements for air support to reduce the strain and facilitate the most efficient use of these limited assets. Finally, ground commanders need to conduct risk mitigation at their level and cover lower threat areas with organic surface assets while focusing air assets at the higher threat areas. It is just not possible to have airpower overhead every unit every minute of every day.

At the same time, air commanders need to understand that sometimes, especially in COIN, efficiency and effectiveness are difficult to measure and that successful mission

accomplishment may be the only measurement possible. They also need to ensure that in COIN conflicts they are prepared to become the supporting entity to the ground forces and potentially employ aviation assets in nontraditional methods, to include potentially subordinating an air unit to a ground unit. While certainly this may be undesirable, that does not mean it shouldn't be an option. Air commanders also need to ensure that airpower planners are at all of the levels required to better facilitate air operations, even if that means down to the platoon and squad level. It also means that key air force commanders, staffs, and planners need to be close enough to the ground force commanders, staffs, and planners to have relevance.

Military commanders must also fully endorse the importance of integration and relationships between aviators and ground force personnel. The importance of these relationships extends to all levels from commanding generals to the most junior enlisted troops. While it may be easier to locate command posts and operations centers in dispersed locations, this significantly reduces the effectiveness of organizations that have to work together. Technology has certainly helped in bringing dispersed entities closer together through video teleconferences and the internet but it doesn't replace the actual face to face interactions that facilitate execution. Too often it leads to an out of sight, out of mind mentality and a breakdown in effective communication. The dynamic nature of today's conflicts demands rapid decision making and by establishing relationships and integrating personnel commanders can maximize the decision making cycle.

Advances in technology also allow for much greater decentralization than ever before. The single greatest factor that has allowed US ground forces to decentralize and operate across such large areas with such small forces has been technology. Improved communications equipment and global positioning systems are two examples of technological advances that ground forces employ that have significantly altered traditional operations. One of the greatest limiting factors in the distances between units was the range of their radios. Now with satellite communications as well as cellular and microwave technology, units can remain within radio contact at much greater distances. This means that commanders have the ability to support those smaller units out to much greater ranges if and when they encounter and trouble. If ground forces can adapt to the unique requirements of COIN by decentralizing and distributing their combat power

through the utilization of these new technologies, then it would seem that this same principle should apply to airpower and aviation assets.

If airpower was employed in a manner similar to what is being argued in this paper, counterinsurgency operations would be conducted much differently. The area of operations would be divided into regional commands (RCs) based on factors such as political importance, economic importance, tribal or religious affiliation, or level of insurgent activity. Each of these regional commands would be jointly commanded by an air commander and a ground commander. These commanders would share the responsibility for the execution of all operations within their assigned RC. Their staffs would be fully integrated and share the same command post. Their units would have trained together for just less than a year prior to deploying and would operate in the RC for a tour of 15 months.

All missions would be planned jointly. Pilots and ground force leaders would plan based on their areas of expertise and rehearsals would be done in detail. The supported and supporting relationship between the elements would be determined as dictated by the requirements of each specific operation.

Their main base camp would include an airstrip of the required size to support the aircraft assigned to the air commander. The air element would be augmented with all of the personnel and systems required to command and control the air space over the RC. This would include intelligence, surveillance, and reconnaissance (ISR) platforms and personnel. The air element would also have additional pilots trained as forward air controllers (FACs), which would be attached to the ground force units.

The ground commander would assign ground liaisons to the air element to assist in contingency planning as well as events requiring ground commanders to be airborne. The ground force would prepare numerous auxiliary landing strips throughout the RC as well as provide trained forward arming and refueling point (FARP) teams to maximize the use of all aviation assets.

The advantages are obvious. These commanders would be able to execute operations at a pace they would dictate, utilizing tactics, techniques, and procedures they determine are most applicable. They would be able to make risk assessments based on detailed, first-hand information of the situation and environment they see every day.

They would be able to respond to enemy actions with a speed unseen in previous conflicts. The pilots would know the terrain, population, and patterns of life within the RC as well as the ground forces. This would facilitate pilots directing the battle from their position on the ultimate high ground. Ground force leaders would be able to transition command and control of the ground forces to a pilot if it is to the advantage of the mission. Close air support would be timely, effective, and significantly less dangerous due to the level of planning and length of preparation that has occurred. ISR would provide outstanding intelligence support, as the ISR platform operators would be part of the unit and would be as familiar with the RC as the pilots. There would be very few cases of aircraft getting retasked at the last due to a TIC or a failure of aircraft to arrive on station due to a sandstorm at their air base 200 miles away.

The disadvantages are few. Counterinsurgency is not an efficient method of warfare and there would be times when aircraft would be sitting idle instead of supporting another RC. Some commanders of low risk or low threat RCs would have to share the extremely limited air assets that would remain at the theater level while mitigating some risks with only their organic assets and some would have none at all. There would certainly be costs associated with procuring the equipment, systems, and additional personnel required to operate in this manner and a lack of efficiency would have to be accepted. Finally, there would be a heavy toll on the logistics required to facilitate air units operating in an independent manner whether it was fuel, ammunition, or maintenance items.

The latest edition of the COIN manual, The US Army and Marine Corps Field Manual 3-24, *Counterinsurgency* does an excellent job of capturing the lessons learned from US experiences conducting counterinsurgency operations and provides a useful aid in understanding the relevant issues associated with COIN. The one area that is surprisingly small is the section on airpower, which is the final appendix in the manual, consisting of 10 pages total. While the information presented in those ten pages is of value, it seems far less than what one would expect given the value and importance of modern day airpower in conducting counterinsurgency operations.¹ The original Small Wars Manual published in 1940 had a chapter of 24 pages dedicated to airpower in

¹ USA FM 3-24/MCWP 3-33.5, *Counterinsurgency Field Manual*, 363-372.

COIN.² This discrepancy seems to indicate that more research and study needs to be done to ensure that airpower is fully integrated into counterinsurgency operations and irregular warfare at large.

One area of study that would be interesting would be an examination of the differences in efficiency and effectiveness of airpower in COIN being employed in a centralized control and decentralized execution manner versus airpower employed in a manner suggested by this paper. As part of this research it would also be interesting to determine whether the advances in command and control technology and communications would influence the method in which airpower could be employed.

A second area in which further study would provide interesting insight would be to undertake another study similar to Project Corona Harvest, which was conducted during the Vietnam War. Project Corona Harvest examined a wide range of factors regarding airpower employment in Vietnam with a specific focus on the efficiency and effectiveness of close and direct air support in South Vietnam. It included a number of various perspectives on how airpower achieved its aims as well as statistics gained from unit records, both air and ground.³ Given the duration of the recent conflict in Iraq and the on-going operations in Afghanistan, the amount of data that should be available would make for an interesting comparison to the data collected from operations in South Vietnam, specifically in the 1965-1968 period.

Counterinsurgency operations can no longer be ignored or wished away. They must be planned and prepared for in every future conflict because a failure to do so provides the enemies of the United States with an undesirable advantage. While every COIN conflict is different, there are a number of fundamentals that must not be ignored. The value of airpower is one of them. The integration of airpower and ground forces provides a significant advantage to the US and must be maximized to every extent possible. One of the methods for capitalizing on the asymmetric advantage of airpower is

² FMFRP 12-15, *Small Wars Manual*, Ch 9.

³ Project Corona Harvest began in 1966 with the goal of evaluating the use of airpower in Southeast Asia and continued until late 1975. In 1970 the Air Force tasked the Air University commander to head the project and the result was the publication of numerous studies, reports, and specific lessons learned in Southeast Asia from 1965-1968. Project Corona Harvest has been described as “one of the most ambitious efforts undertaken by Air University to study and develop lessons learned from a conflict in progress.” <http://www.aetc.af.mil/library/history/50yearsofeducation/vietnamwarera.asp>

to examine the possibility of employing it in a more decentralized and distributed manner than ever before. The lessons from Nicaragua and Vietnam provide the historical context that should drive the evolution of airpower employment in COIN operations. While certainly airpower has adapted to the requirements of the current COIN conflicts, the question remains why it continues to ignore evolving in a parallel manner to the ground forces. While change is always difficult every option must be examined to ensure the maximization of all capabilities to reduce the costs in blood and treasure to the American people and defeat those enemies that choose to wage an insurgency against the US or its partners.



Bibliography

Air Force Doctrine Document (AFDD) 1, *Air Force Basic Doctrine*, 14 October 2011.

Air Force Doctrine Document (AFDD) 2-3, *Irregular Warfare*, 1 August 2007.

Andrade, Dale and James H. Willbanks. "CORDS/Phoenix: Counterinsurgency Lessons from Vietnam for the Future." In *US Marines and Irregular Warfare, 1898-2007: Anthology and Selected Bibliography*, compiled by Col Stephen S. Evans, 55-66. Quantico, VA: Marine Corps University Press, 2008.

Belote, Col Howard D. "Counterinsurgency Airpower: Air-Ground Integration for the Long War." *Air & Space Power Journal*, (Fall 2006): 1.
<http://www.airpower.au.af.mil/airchronicles/apj/apj2006/fal06/belote.html>.

Bernard C. *The United States Marines In Nicaragua*. Washington DC: Historical Branch, G-3 Division, Headquarters, US Marine Corps, 1968.

Bickel, Keith B. *Mars Learning: The Marine Corps' Development of Small Wars Doctrine, 1915-1940*. Boulder, CO: Westview Press, 2001.

Boese, Capt Todd. "Task Organizing the MAGTF for Disaggregated Operations." *Marine Corps Gazette* 95, no.1 (January 2011): 22-23.

Boggs Jr., Charles W. "Marine Aviation: Its Origins and Growth." *Marine Corps Gazette*, May 1956, 17.

Brainard, E. H. "Marine Corps Aviation." *Marine Corps Gazette*, March 1928, 28.

Callwell, Col C.E. *Small Wars: Their Principles and Practice*. Lincoln, NE: University of Nebraska Press, 1996.

Carlson, Capt Evans F. "The Guardia Nacional de Nicaragua." *Marine Corps Gazette*, August 1937, 16.

Corum, James S. "Airpower and Counter-insurgency: Back to the Basics." In *Airpower, Insurgency and the "War on Terror"*, edited by Joel Hayward, 205-220. Lincolnshire, UK: Royal Air Force Centre for Airpower Studies, 2009.

Corum, James S. and Wray R. Johnson. *Airpower in Small Wars: Fighting Insurgents and Terrorists*. Lawrence, KS: University Press of Kansas, 2003.

Creveld, Martin van. *The Age of Airpower*. New York, NY: PublicAffairs, 2011.

- Creveld, Martin van. *Command in War*. Cambridge, MA: Harvard University Press, 1985.
- Dunlap, MajGen Charles J. "Making Revolutionary Change: Airpower in COIN Today." *Parameters*, Summer 2008, 54.
- Edson, Maj Merritt A. "The Coco Patrol." *Marine Corps Gazette*, February 1937, 13.
- Elton, LtCol Buck. "Shortchanging the Joint Doctrine Fight: One Airman's Assessment of the Airman's Assessment." *Small Wars Journal*, 12 July 2008, 3.
<http://smallwarsjournal.com/jrnl/art/shortchanging-the-joint-doctrine-fight>.
- Evans, Col Stephen S. *US Marines and Irregular Warfare, 1898-2007: Anthology and Selected Bibliography*. Quantico, VA: Marine Corps University Press, 2008.
- Fleet Marine Force Reference Publication (FMFRP) 12-15. *Small Wars Manual*, 22 December 1990.
- Frankum Jr., Ronald B. *Like Rolling Thunder: The Air War in Vietnam 1964-1975*. Lanham, MD: Rowman & Littlefield Publishers, Inc., 2005.
- Galula, David. *Counterinsurgency Warfare: Theory and Practice*. Westport, CT: Praeger Security International, 1964.
- Grant, Rebecca. "Penny Packets, Then and Now." *Air Force Magazine*, June 2010, 2.
- Grossman, Richard. "Looks Suspicious: The US Marines Air Campaign against the Sandino Insurgents of Nicaragua 1927-1933." In *Airpower, Insurgency and the "War on Terror"*, edited by Dr. Joel Hayward, 79-94. Lincolnshire, UK: Royal Air Force Centre for Airpower Studies, 2009.
- Hagee, Gen M.W. "A Concept for Distributed Operations." Washington, DC: HQ Marine Corps, 25 April 2005. <http://www.marines.mil/unit/tecom/mcu/grc/library/Documents/A%20Concept%20for%20Distributed%20Operations.pdf>.
- Hayward, Dr. Joel, ed. *Airpower, Insurgency and the "War on Terror"*. Lincolnshire, UK: Royal Air Force Centre for Airpower Studies, 2009.
- Hemingway, Al. *Our War was Different*. Annapolis, MD: Naval Institute Press, 1994.
- Hinote, LtCol Clint. *Centralized Control and Decentralized Execution: A Catchphrase in Crisis?* Air Force Research Institute Papers 2009-1. Maxwell AFB, AL: Air University Press, March 2009.
- Hoffman, LtCol Jon T. *Chesty: The Story of Lieutenant General Lewis B. Puller, USMC*. New York, NY: Random House, Inc., 2001.

- Horwood, Dr. Ian. *Interservice Rivalry and Airpower in the Vietnam War*. Fort Leavenworth, KS: Combat Studies Institute Press, 2009.
- Hukill, LtCol Jeffrey, and Dr Daniel Mortenson. "Developing Flexible Command and Control of Airpower." *Air and Space Power Journal*, Spring 2011, 61.
http://www.airpower.maxwell.af.mil/airchronicles/apj/2011/2011-1/2011_1_03_hukill_mortensen.pdf.
- Jansen, LtCol John, Maj Jim Sisler, Maj Dave Oclander, LtCmdr Nick Dienna, Maj Todd Bufkin, Maj Tom Ditomasso. "The Tower of Babel? Joint CAS Operations in Afghanistan." *Infantry*, January-February 2004, 39.
- Jogerst, Col John D. "Preparing for Irregular Warfare: The Future Ain't What it Used to Be." *Air & Space Power Journal* XXII, no. 4 (01 December 2009), 4.
<http://www.airpower.au.af.mil/airchronicles/apj/apj09/win09.htm> (accessed on 22 February 2012).
- Johnson, LtCol Edward C. *Marine Corps Aviation: The Early Years 1912-1940*. Washington DC: History and Museums Division, Headquarters, US Marine Corps, 1977.
- Johnson, Wray R. "Airpower and Restraint in Small Wars: Marine Corps Aviation in the Second Nicaraguan Campaign, 1927-33." In *US Marines and Irregular Warfare, 1898-2007: Anthology and Selected Bibliography*, compiled by Col Stephen S. Evans, 55-66. Quantico, VA: Marine Corps University Press, 2008.
- Joint Publication 1-02, *Department of Defense Dictionary of Military and Associated Terms*, 08 November 2010 (as amended through 15 January 2012).
- Kometer, Maj Michael. "The Strategy of Control: Centralized vs. Decentralized Control of US Airpower." *Defence Studies* 3, no. 2 (Summer 2003): 37.
- Long, Austin. *On "Other War": Lessons Learned from Five Decades of RAND Counterinsurgency Research*. Santa Monica, CA: RAND Corporation, 2006.
- Macklin Jr., Col James R. "Airpower and Counterinsurgency: A Strategic Study in Efficiency." Strategy research project, US Army War College, 2010.
- Mcgee, LtGen Vernon E. (Ret.). "Guerrilla Lessons From Nicaragua." *Marine Corps Gazette*, June 1965, 36.
- Mersky, Peter B. *U.S. Marine Corps Aviation 1912 to the Present*. Baltimore, MD: The Nautical & Aviation Publishing Company, 1997.

- Millett, Allan R. *Semper Fidelis: The History of the United States Marine Corps*. New York, NY: The Free Press, 1991.
- Momyer, Gen William W. (Ret.). *Airpower in Three Wars*. Maxwell AFB, AL: Air University Press, 2003.
- Mrozek, Donald J. *Airpower and the Ground War in Vietnam*. Maxwell AFB, AL: Air University Press, 1988.
- Nalty, Bernard C. *The United States Marines In Nicaragua*. Washington DC: Historical Branch, G-3 Division, Headquarters, US Marine Corps, 1968.
- O'Connell, CAPT John F. (Ret.), *The Effectiveness of Airpower in the 20th Century; Part Three 1945-2000*. Lincoln, NE: iUniverse, 2006.
- Read, Derek. "Airpower in COIN: Can Airpower Make a Significant Contribution to Counter-Insurgency?" *Defence Studies* 10, Nos. 1-2 (March-June 2010): 131.
- Rowell, Maj Ross E. "Aircraft in Bush Warfare." *Marine Corps Gazette*, September 1929, 184.
- Rowell, Maj Ross E. "Annual Report of Aircraft Squadrons, Second Brigade, US Marine Corps, July 1, 1927 to June 20, 1928." *Marine Corps Gazette*, December 1928, 250.
- Schlight, John. *The War in South Vietnam: The Years of the Offensive 1965-1968*. Washington DC: Air Force History and Museums Program, 1999.
- Slessor, J.C. *Airpower and Armies*. Tuscaloosa, AL: The University of Alabama Press, 2009.
- Smith, Maj Julian C., Maj Lloyd L. Leech, Maj Thomas P. Cheatham, Capt Edward L. Burwell, Capt H.M.H. Fleming, 1stLt Gregon A. Williams, SgtMaj Charles Davis, and Cpl Emil H. Krieger. *Nicaragua: A Review of the Organization and Operations of the Guardia Nacional De Nicaragua*. Washington DC: US Marine Corps Headquarters, 1974.
- Tran, Pierre. "Afghanistan Ops Highlight Need for Jointness in Close Air Support." *Defense News*, 11 May 2009. <http://mobile.defensenews.com/story.php?i=4083044&c=FEA&s=SPE.html> (accessed 23 February 2012).
- Tse-tung, Mao. "On Protracted War." May 1938, *Selected Works of Mao Tse-tung, Vol II* Peking: Foreign Languages Press, 1967.
- US Army Field Manual 3-0 w/Change 1, *Operations*. Washington DC: Government Printing Office, 2011. <http://www.fas.org/irp/doddir/army/fm3-0.pdf>.

US Army Field Manual No. 3-24/Marine Corps Warfighting Publication No. 3-33.5, *Counterinsurgency Field Manual*. Chicago, IL: The University of Chicago Press, 2007.

Vick, Alan J., Adam Grissom, William Rosenau, Beth Grill, and Karl P. Mueller. *Air Power in the New Counterinsurgency Era: The Strategic Importance of USAF Advisory and Assistance Missions*. Santa Monica, CA: RAND Corporation, 2006.

Walsh, BGen Robert S. "Air Support in Irregular Warfare." *Marine Corps Gazette*, July 2010, 51-54.

Zweibelson, Maj Ben. "Penny Packets Revisited: How the USAF Should Adapt to 21st Century Irregular Warfare." *Small Wars Journal*, (September 2010), 1-10.
[http://www.smallwarsjournal.com /blog/journal/docs-temp/559-zweibelson.pdf](http://www.smallwarsjournal.com/blog/journal/docs-temp/559-zweibelson.pdf).



Additional Suggested Readings

- Brewington, Brooks R. "Combined Action Platoons: A Strategy for Peace Enforcement." Command and Staff College 1996. [http:// www.stormingmedia.us/75/7512/A751284.html](http://www.stormingmedia.us/75/7512/A751284.html).
- Brush, Peter. *Civic Action: The Marine Corps Experience in Vietnam, Part I*. Library Science, University of Kentucky, 1994.
- Cassidy, Robert M. "Back to the Street Without Jo: Counterinsurgency Lessons from Vietnam and Other Small Wars." *Parameters* 34:2 (Summer 2004), 73-83.
- Cassidy, Robert M. "Winning the War of the Flea: Lessons from Guerrilla Warfare." *Military Review*, September-October 2004.
- Cavagnol, Richard M. "Lessons From Vietnam." *Marine Corps Gazette*, March 2007.
- Clausewitz, Carl Von, and Hans Wilhelm Gatzke. *Principles of War*. Mineola, NY: Dover Publications, 2003.
- Clausewitz, Carl Von. *On War*. Princeton, New Jersey: Princeton University Press, 1976.
- Conklin, Jeff Ph.D. "Wicked Problems & Social Complexity." Excerpt from chapter 1 *Dialogue Mapping: Building Shared Understanding of Wicked Problems*, Wiley, October 2005. CogNexus Insitute website at <http://www.cognexus.org>. © 2001-2008 CogNexus Institute. Rev. Oct 2008.
- Danner, Matthew. "The Combined Action Platoon Seeds of Success in Iraq." *American Veterans*, n.d. http://www.americans-working-together.com/american_veterans/id16.html.
- Driest, Major Charles W. "Combined Action Platoons: A Possible Role in the Low-Intensity Conflict Environment." A monograph, Fort Leavenworth, Kansas: School of Advanced Military Studies, U.S. Army Command and General Staff College, 1990.
- Go, Major William W. "The Marine Corps' Combined Action Program and Modern Peace Operations – Themes and Lssons." A monograph, Quantico, Virginia: Marine Corps Command and General Staff College, 1997.
- Gompert, David C. and John Gordon IV. *War By Other Means*. Santa Monica, CA: RAND National Defense Research Institute, 2008.

- Goodale, Jason and Jon Webre. "The Combined Action Platoon in Iraq." *Marine Corps Gazette* 89, no. 4 (April 2005).
- Gordon, Micheal R. and Bernard E. Trainor. *COBRA II: The Inside Story of the Invasion and Occupation of Iraq*. New York: Pantheon Books, 2006.
- History. Combat Liaison Platoon (81mm Mortar Plt), Weapons Company, First Battalion, Eighth Marine Regiment, Regimental Combat Team - Seven, First Marine Division, Operation Iraqi Freedom II, After Action Report, February 2005.
- History. Weapons Company, First Battalion, Eighth Marine Regiment, Regimental Combat Team - Seven, First Marine Division, Operation Iraqi Freedom II, After Action Report, February 2005.
- History. Lima Company, Third Battalion, First Marine Regiment, First Marine Division, Operation Enduring Freedom 10-1, After Action Report, November 2010.
- History. Third Battalion, First Marine Regiment, First Marine Division, Operation Enduring Freedom 10-1, After Action Report, November 2010.
- Hoffman, Bruce. *Inside Terrorism*. Revised and expanded ed. New York: Columbia University Press, 2006.
- Joes, Anthony James. *The War for South Vietnam 1954-1975*. Westport, Connecticut: Praeger Security International, 2001.
- Kenneley, John J. "The Combined Action Platoon Concept in Operation Iraqi Freedom II." After Action Report submitted to 1/8 S-3, March 2005.
- Kenneley, John J. "Operation Enduring Freedom 10-1 Advice." Comments from a Company Commander, March 2011.
- Kopets, Keith F. "The Combined Action Program: Vietnam." *Small Wars Journal*. 2005.
- Krulak, Gen Charles C., "The Strategic Corporal: Leadership in the Three Block War," *Marines Magazine*, January 1999.
- Krulak, Victor H. *First to Fight*. Annapolis, MD: Naval Institute Press, 1984.
- Tse-tung, Mao. *On Guerrilla Warfare*. Champaign, IL: University of Illinois Press, 1961.
- Marine Corps Combat Development Command. *A Concept for Countering Irregular Threats: A Comprehensive Approach*. Quantico, Virginia, 2006.
- Marine Corps War-fighting Laboratory. "CETO Quick Look: Dealing with the Civilian Population in Post-Saddam Iraq." Center for Emerging Threats. 6 February 2003.

Marine Corps War-fighting Laboratory. "CETO Quick Look: Personal Experiences with the Combined Action Program in Vietnam." Center for Emerging Threats. 17 March 2004.

Marine Corps Warfighting Publication (MCWP) 3-2. *Aviation Operations*. Washington, DC: Headquarters, U.S. Marine Corps, 2000.

Monroe, Major Joseph F. "Afghanistan: Security Integration and Organization." A monograph, Newport, Rhode Island: Naval War College, 2004.

Moser, Don. "Their Mission: Defend Befriend." *Life*, 25 August 1967, 8-22.

Murray, Willliamson., and Allan R. Millet, ed. *Military Innovation in the Interwar Period*. Cambridge, United Kingdom: Cambridge University Press, 1996.

Nagl, John A. *Learning to Eat Soup with a Knife*. Chicago: University of Chicago Press, 2002.

Peterson, Michael E. *The Combined Action Platoons: The US Marines' Other War in Vietnam*. Westport, CI: Praeger Publishers, 1989.

Pirnie, Bruce R. and Edward O'Connell. *Counterinsurgency in Iraq (2003-2006)*. Santa Monica, CA: RAND National Defense Research Institute, 2008.

Savage, Major T.B. "The Combined Action Platoon and its Applicability in Future Conflict." A monograph, Quantico, Virginia: School of Advanced Warfighting, Marine Corps Command and Staff College, 2005.

Skuta, Phillip. "Introduction to 2/7 CAP Platoon Actions in Iraq." *Marine Corps Gazette* 89, no. 4 (April 2005).

Taşpınar, Ömer. "Fighting Radicalism, Not Terrorism: Root Causes of an International Actor Redefined." In *International Security Studies AY11 Coursebook*, edited by Sharon McBride, 316-324. Maxwell AFB, AL: Air University Press, August 2010.

Trinquier, Roger. *Modern Warfare: A French View of Counterinsurgency*. Westport, CI: Praeger Security International, 1964.

United States. Marine Corps. Force Order 3121.4B: Standing Operating Procedure for the Combined Action Program. III Marine Amphibious Force Military Assistance Command, Vietnam. 22 June 1968. Marine Corps University Library Archives.

Walt, Lewis W. *Strange War, Strange Strategy*. New York: Funk and Wagnalls, 1970.

Weltsch, Major Michael D. "The Future Role of the Combined Action Program." A monograph, Fort Leavenworth, Kansas: U.S. Army Command and General Staff College, 1990.

West, Bing. *The Strongest Tribe*. New York: Random House, 2008.

West, Bing. *The Village*. New York: Pocket Books, 1972.

Yates, Lawrence A. "A Feather in Their Cap? The Marines' Combined Action Program in Vietnam," in *New Interpretations in Naval History: Selected Papers from the Ninth Naval History Symposium*, edited by William R. Roberts and Jack Sweetman, 309-26. Annapolis, Maryland: Naval Institute Press, 1991.

