TRAINING BLUEPRINT OF AN AIR COMMANDO

BY

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

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CONTENTS

Appendix

Illustrations

Table

Figure

DISCLAIMER

The conclusions and opinions expressed in this document are those of the author. They do not reflect the official position of the US Government, Department of Defense, the United States Air Force, or Air University.

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ABSTRACT

Air Force Special Operations Forces (AFSOF) continuously deploy throughout the world with little sign of future relief. Many conflicts involving AFSOF are dynamic in nature. Such conflicts today are different from those of the past. Future conflicts and threats may prove even more challenging. Given the ever-changing character of the threat, Air Commandos need to be adaptive, innovative, and flexible as they continue to play an integral role in defeating adversaries of the United States. To meet the requirements levied upon it, Air Force Special Operations Command (AFSOC) continues to grow the number of its personnel and platforms.

Growth in personnel and platforms has the potential to undermine the qualities that make Air Commandos unique. This study attempts to emphasize how these qualities are molded and shaped in the training of Air Commandos. Such training must preserve the cultural values of Air Commandos and can best do so through the appropriate balance of people, procedures, and tools. This thesis begins with an overview of the first Air Commandos and highlights how their culture was established as a result of training for and conducting Operation THURSDAY during the Second World War. The dedication of John Alison and Phil Cochran, and the unit culture they established, epitomize what it means to be an Air Commando. Next, the thesis discusses the build-up of two AFSOC programs. The first program, the MC-130H, evolved during peacetime. The second program, the U-28, rushed to meet wartime requirements and needs. The key to the success of both programs was the emphasis in each placed on the people and tools, as opposed to the procedures. The thesis then outlines and assesses the most recent AFSOC training initiatives, the Air Commando Development Program, designed to instill those joining the Command with an Air Commando identity. These initiatives emphasize the tools and the people of AFSOC. The thesis concludes by providing recommendations how to build a culture for future Air Commandos through people, procedures, and tools.

Chapter 1

Introduction

> *Excellence is an art won by training and habituation. We do not act rightly because we have virtue or excellence, but we rather have those because we have acted rightly. We are what we repeatedly do. Excellence, then, is not an act but a habit.*
>
> --Aristotle

A successful learning environment prepares trainees to achieve a desired degree of knowledge. Instructors impart trainees with the basic level of knowledge they need to accomplish their jobs. Introductory level knowledge should be solid because it provides the trainee with the basic concepts and foundation upon which to build later. The military uses this building block approach for professional military education as well as flight training. Specifically, Air Force aviators use this building block approach from basic flight school and throughout their flying careers. Many aviators will attend advanced training that takes advantage of skills learned early in their career.

In today's complex environment, aviators are required to adapt, innovate, and be more creative to accomplish the mission. The future will be more complicated than the past and will create new challenges.[1] Adapting to a complex environment is a requirement for all military forces, but especially special operations forces (SOF) due to the nature of their missions. The United States Special Operations Command

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[1] General Mark A. Welsh III. *A Call to the Future: The New Air Force Strategic Framework.* Senior Leader Perspective. Air and Space Power Journal. May-Jun 2015: 3-9. http://www.au.af.mil/au/afri/aspj/digital/pdf/articles/2015-May-Jun/SLP-Welsh.pdf. Pg. 3.

(USSOCOM) Strategic Vision 2020 states, "given the increasing complexity and uncertainty in the global environment; it is imperative USSOCOM become more agile, even more flexible, and ready for a broader range of contingencies."[2]

What is the most effective way for SOF to become a more agile and flexible force ready to execute a broad range of contingencies? Part of the answer may reside in an efficient, proactive learning environment geared towards flexibility and adaptability that fosters creativity and enables the ability to meet the demands of future missions.

The current reactive learning environment does not promote the adaptability necessary to execute complex missions of the future, nor does it maximize using the aspects of the right people, procedures, or tools for mission success. A proactive learning environment balances these three aspects to ensure an adaptive, flexible learning environment capable of promoting successful execution of complex missions. This proactive learning environment ensures SOF personnel have the appropriate tools necessary to prepare for future conflicts. Implementing the proper training program with the tools required to train SOF for these future missions provides SOF warriors the knowledge necessary to conduct successful complex missions of tomorrow. Proactive rather than reactive learning environments set up SOF units to be better prepared and more adaptable to the rapidly changing environment and promotes creative thinking.

Before Operation ENDURING FREEDOM (OEF) and Operation IRAQI FREEDOM (OIF), Air Force Special Operations Command (AFSOC)

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[2] "United States Special Operations Command 2020." United States Special Operations Command Public Affairs Office, n.d. http://www.defenseinnovationmarketplace.mil/resources/SOCOM2020Strategy.pdf. Pg. 1. USSOCOM 2020 provides strategic direction for SOF to prepare and operate in dynamic and diverse environments. It is the first step in a Strategic Planning Process linking strategy to capability development to resourcing.

training programs focused on Cold War scenarios and methods. Additionally, SOF units used tools and counter-tactics developed to combat a Cold War enemy. AFSOC should have used OEF and OIF as a catalyst for the military to change its approach to training.[3] Instead, AFSOC reverted to its habitual training routines, and these programs did not adjust with the changing environment.[4] AFSOC training programs require the capability to identify and rapidly adjust to the potential environmental changes. Additionally, training programs should strive to arm SOF with the ability to adapt and think critically to conduct future operations successfully. If the current training program in AFSOC could demonstrate their importance in the future fight, this could increase the motivation, self-efficacy, and commitment of incoming individuals.[5]

BACKGROUND AND SIGNIFICANCE

Successful learning environments are the foundation of aviation training, especially when training AFSOC Air Commandos for future missions in complex environments. One needs to understand the importance of training to comprehend fully the effects a learning environment can have on an organization. The type of learning

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[3] The idea that the military, especially Special Operations, could have changed the approach to training could be considered an opportunity to create a paradigm shift. For more on paradigm shifts, see Thomas S. Kuhn. *The Structure of Scientific Revolutions.* Chicago, IL: The University of Chicago Press, 2012.

[4] Robert Jervis. *Perception and Misperception in International Politics*. Princeton, New Jersey: Princeton University Press, 1976. Pg. 187. Jervis discusses the idea of premature cognitive closure describing when an organization is wedded to an established viewpoint without regards to the situation.

[5] Albert Bandura. "Self-Efficacy: Toward a Unifying Theory of Behavioral Change." *Psychological Review* 84, no. 2 (1977): 191–215. http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.315.4567&rep=rep1&type=pdf Mr. Bandura defines self-efficacy as a person's ability to believe that their actions can produce the desired effects. Without this incentive, many have little desire to persevere in the current endeavor.

environment an organization creates is significant and directly related to the development of the desired culture.

AFSOC aviators can be called upon to conduct a broad range of missions. It is AFSOC's responsibility to ensure each aviator is capable of executing those missions, even within the current fiscal restraints and recurring discussions of personnel cuts. These personnel and fiscal realities, demanding complex operational missions, and desired cultural setting lead to the following research question: *How should Air Force Special Operations Command (AFSOC) train to create future Air Commandos?*

Shortly after the beginning of OEF and OIF, AFSOC training was sufficient to meet the current qualification requirements for immediate wartime needs but insufficient to create the next generation Air Commandos.[6] AFSOC taught its aviators just enough to allow the students to complete the course and deploy. With the high operations tempo (OPTEMPO) related to global deployments to combat terrorism, AFSOC leaders focused on getting people through training. In 2005, supporting units asked AFSOC to increase their current mission set which further pushed AFSOC's focus on increasing the quantity of fielded personnel at the expense, to a degree, of quality.

AFSOC leaders did not prepare for this rapid influx of personnel and aircraft. While flexibility and adaptation are two key elements of special operations, the rapid influx put a strain on units individually and AFSOC collectively and appeared to violate one or more of the SOF truths.[7] USSOCOM codified the SOF truths as a reminder to strike

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[6] AFSOC training focused on training for the previous war with a robust Integrated Air Defense System (IADS) and the training did not account for the guerrilla tactics seen in OEF and OIF. The training did not allow Air Commandos to focus on the future fight, rather it assumed the training would be sufficient for both types of conflict.

[7] The SOF truths are: 1) Humans are more important than Hardware, 2) Quality is better than Quantity, 3) Special Operations Forces cannot be mass produced, 4)

balance within the force to meet the needs of the present without mortgaging its long-term health. Unfortunately, the programs in place did not allow AFSOC to maintain the balance between people, programs, and tools of its training programs. AFSOC forces need to prepare themselves to meet the demanding requirements to succeed at the complex missions of the future. For Air Commandos to meet these future demands, AFSOC should generate flexible and creative training programs directed at developing innovation and adaption.

Successful learning environments not only teach the basics to understand the mission, but also ensure an organization can support itself. People who possess motivation, self-efficacy, and commitment to the mission promote successful learning. When an individual's desire for knowledge is high, so is the productivity and confidence of that individual. In the words of some educators, "Motivation to learn can be an important predictor of actual learning in training. Motivation to learn refers to a condition when trainees believe training is relevant and is willing to exert effort in the training environment."[8] A person's motivation to learn becomes a paramount quality in a training program. Motivation leads to self-efficacy, which leads to the level of commitment to training AFSOC Air Commandos need to succeed.

These three elements are important to create the right organizational culture, and culture is an essential element to ensure the organization as a whole is working towards a common goal. Lieutenant General Bradley Heithold, the AFSOC Commander, stated the importance of culture in the following way: "We need all of our Air

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Competent Special Operations Forces cannot be created after emergencies occur, and 5) Most Special Operations require non-SOF assistance. See "SOF Truths," available online at http://www.socom.mil/pages/softruths.aspx, accessed 15 June 2016.

[8] Eduardo Salas, Scott I. Tannenbaum, Kurt Kraiger, and Kimberly A. Smith-Jentsch. "The Science of Training and Development in Organizations: What Matters in Practice." Association Science in the Public Interest 13, no. 2 (2012): 74–101. Pg. 79.

Commandos to understand AFSOC's unique role and why it is different from your average mission. For us, the 'no-fail' mission is routine and there is no, 'we'll get to it tomorrow.' That culture must permeate all of our career fields. You should take pride in knowing that, as an Air Commando, much is expected of you as you execute our nation's most demanding operations."[9]

For AFSOC Air Commandos, culture may be the most important element to successful training programs by promoting a set of shared values. Members do not come into an organization understanding the culture, as "culture is learned, not innate."[10] Understanding the history behind the Air Commandos is the first step towards learning AFSOC culture because previous experiences can drive decisions of future conflict.

Historically, special operations were born out of wartime necessity, and were just as quickly dismantled during peacetime. Conditions during World War II (WWII) led to the creation of a number of special operations units, including the original Air Commandos. The Air Commandos of this era were "daring pilots who swooped in low to drop supplies or landed in jungle clearings to bring out the sick and wounded."[11] The "proliferation of [these forces, would essentially lay] down, through trial and error, the blueprints for everything that would come after."[12]

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[9] Lt. Gen. Bradley Heithold. AFSOC Priority #3: Transform Training to Optimize Human Performance. http://www.afsoc.af.mil/News/ArticleDisplay/tabid/136/Article/562250/afsoc-priority-3-transform-training-to-optimize-human-performance.aspx. Jan 23, 2015. (Accessed 27 Dec 2015)

[10] Geert Hofstede and Gert Jan Hofstede. *Cultures and Organizations: Software of the Mind*. New York, NY: McGraw-Hill, 2005.

[11] Samuel A. Southworth and Stephen Tanner. *U.S. Special Forces*. Cambridge, MA: Da Capo Press, 2002. Pg. 15

[12] Southworth, *U.S. Special Forces*, 12

Repeatedly, military leaders found themselves requiring the special services and skills provided by the men of special operations units. Historically, after each crisis passed, special operations services, units, knowledge, and special way of getting the job done were disbanded only to be reinvented when the next crisis occurred. It was not until April 13, 1987, through an act of Congress, that the United States formalized a collection of special operations forces into a single unified command known as USSOCOM.[13] Even though each conflict would prove a need for special operations, the leaders of the different Armed Services did not maintain these forces.

This thesis highlights one historical example because a complete history of special operations is outside its scope. However, it is important to highlight certain elements of the Air Commando ethos observable at their birth remain true for training Air Commandos today. The culture of these individuals—the can-do attitude, the adaptability and creativity, and the rapid mobilization—are the same elements of culture necessary for the Air Commandos of today. Employing a training program that highlights and uses these elements as a foundation is what AFSOC requires to train aviation Air Commandos appropriately.

SCOPE AND LIMITATIONS

Training should be the bedrock of any organization. Training affects all aspects of an organization, and special operations are no exception. However, the focus of this thesis is on AFSOC aviation Air Commandos only. First, this thesis will describe Operation THURSDAY and the birth of the original Air Commandos. This description will give the reader a basic understanding of the history and outline the importance of culture in an organization. Additionally, this thesis explores in the next chapter two distinctly different programs developed

[13] Southworth, *U.S. Special Forces,* 27

under AFSOC more than ten years apart and almost a half-century after Operation THURSDAY. The first is the MC-130H Combat Talon II, which AFSOC developed under peacetime conditions. Meeting wartime requirements drove the creation of the second and more recent program, the U-28. The lessons of other programs including the AC-130, MH-53, MV-22, or others would yield many of the same insights, depending on whether the programs began during peacetime or war. As such, they fall outside the scope of this thesis. Studying two programs permits assessment in depth, as opposed to the breadth gained by surveying numerous programs. This study initially sought to compare training systems with those conducted in agencies outside the military, such as universities and commercial airlines, but the author was unable to obtain sufficient information in time to compare the programs in depth.

ORGANIZATION

This thesis will take the reader from the past to the present and then makes some suggestions on the future learning environment in AFSOC. Chapter 2 begins with an examination of the original Air Commandos. It briefly surveys the creation of the original Air Commandos and the execution of Operation THURSDAY. This Chapter identifies how Wingate's Chindits requested and received the support of the United States Army Air Forces and from there, the start of Project 9, as the original Air Commandos were known. The focus for this Chapter is on people, and in particular how an organization that has the "right" leaders, trainees, and aviators contributes to a successful learning environment. It also focuses on the experience levels of the individuals as well as their knowledge level and how these two aspects combine to create the "right" person. Chapter 2 highlights the cultural aspects and specific characteristics that make an Air Commando.

Moving into the more recent past, Chapter 3 discusses the learning and training environment surrounding the MC-130H and U-28

programs. This Chapter looks at the "how" and "why" behind the design and creation of each aircraft's training program. It also identifies how AFSOC determined at the time what the "right" person meant as each of the platforms became operational. This chapter highlights a difference between the two training programs, as AFSOC built one in peacetime and one during wartime. Additionally, this chapter explains how each platform used experienced personnel to build-up their respective programs, and discusses the positive and negative aspects of doing so. Also discussed are the future implications of relying on experience to create and deliver training programs. Finally, it suggests AFSOC missed an opportunity to change the way it built new training programs by relying on an established, habitual model.

Chapter 4 focuses on the future of training AFSOC aviation Air Commandos as embodied in the current initiative, the Air Commando Development Program (ACDP). While this program intends to make all AFSOC personnel Air Commandos, including Special Tactics, support, and maintenance personnel, it currently focuses only on aviators. This Chapter details what the Air Commando Development Program initiative is, the purpose of implementing it, and how AFSOC intends to use it to improve training.

Chapter 5 assesses ACDP using models derived from instructional systems design, or ISD. ISD identifies the training triad of the right program, the right people, and the appropriate tools. Striking a balance between these three components gives an organization the capability to train for the current environment while remaining agile enough to adapt the training to account for future changes. A primary focus area of the chapter is an evaluation ACDP as an efficient and successful learning environment. In addition to assessing ACDP according to the three aspects of the training triad, Chapter 5 identifies some its limitations. The thesis concludes with a brief summary and recommendations for AFSOC leaders.

Training is the bedrock for a successful organization. The people in the organization set the tone and generate the culture. Using the correct training program creates the environment necessary for dealing with current problems and unforeseen future contingencies. All of this is only possible with the appropriate tools. An organization that has the proper balance of these aspects will possess an adaptive, creative learning environment.

Chapter 2

Training the First Air Commandos

Air Commandos have always been distinguished by their ingenuity. They think outside the box and challenge how things have been done before to ensure success. No matter where the fight has taken us, our history shares a common thread of a relentless mission-focus and the resilience to turn any potential setback into an opportunity to excel. From the heroics of the World War II-era Chindits to the lessons of Operation Eagle Claw, to the deserts and mountains of today's fight, our AFSOC Airmen do amazing things every day to keep our country safe. Their dedication, professionalism, and service are the hallmarks of being an Air Commando, and I am honored to serve as their commander.

--Lt. Gen. Eric Fiel

Air Commandos were born out of necessity during World War II (WWII) in the China-Burma-India Theater of operations. Many described these first Air Commandos as innovative, hard-working, and dedicated, and these traits were part of the cultural bedrock created by the founding members of the 1st Air Commando Group. This chapter gives historical insight into the Air Commando culture, identifies some difficulties in creating a new operational capability, and highlights the required support for success. It identifies how people, tools, and programs can influence mission success.

From the very beginning, Air Commandos would train hard and accomplish great feats. When it came to training and operations, these men would push the envelope. Sometimes their actions would lead to controversy and chaos. Many early Air Commandos were idiosyncratic in their leadership style and conducted operations considered extraordinary by their more conventional military peers.

An eccentric personality and nonstandard ideas were two desired traits that set the cultural foundation of the Chindits and Air Commandos. British Brigadier General Orde C. Wingate, the commander of the maneuver force the Air Commandos supported in Burma, exemplified these traits.[1] Wingate had a reputation for creativity, out-of-the-box thinking, and generating unconventional solutions to complicated problems.[2] Due to his atypical approach, many were hesitant to accept and embrace his ideas.[3] A number of senior military and political leaders did not understand Wingate's ideas and his uncommon approach, but in the end, it would be just what the Allied force needed to regain Burma but also to keep China in the war.[4] In 1944, Wingate would conduct an operation that would prove his unusual concept of operations known as long-range penetration (LRP) correct.

Two years before Operation THURSDAY commenced, Wingate studied the Japanese and their tactics. Wingate knew the Japanese force was too strong for the Allied force to use conventional tactics and that the Allied force could not meet the Japanese in a frontal attack. He had studied and conducted guerilla warfare before, most recently in Ethiopia and Palestine, and could identify when to conduct an irregular approach.[5] Wingate evaluated the tactics of the Japanese and concluded an indirect approach would be the Allies' only option.[6] He then created

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[1] Michael E. Haas. *Apollo's Warriors: US Air Force Special Operations during the Cold War*. Maxwell Air Force Base, AL: Air University Press. 1997. Pg. 7.
[2] Hebert A. Mason, Randy G. Bergeron, and James A. Renfrow. *Operation THURSDAY: Birth of the Air Commandos*. Washington, DC: Air Force History and Museums Program, 1994. Pg. 4.
[3] Some remained hostile to Wingate's ideas even after his death. For a useful, if dated summary, see Peter Mean, *Orde Wingate and the Historians* (Braunton, Devon: Merlin Books, 1987).
[4] Mason et. al, *Operation THURSDAY,* 4.
[5] Mason et. al, *Operation THURSDAY,* 4.
[6] The "indirect approach" is the central idea of B.H. Liddell Hart's classic work. See *Strategy*, Rev. Ed. (New York: Meridian, 1991).

the long-range penetration groups (LRPG) which would go deep behind enemy lines. These groups would disrupt the enemy well beyond the forward line of troops and would be resupplied using air power.[7]

Wingate began to organize and train LRPG forces to fight and survive in the jungle. He would "put his forces through rigorous jungle training, which prepared them to march great distances, engage the enemy in hit-and-run raids, locate and destroy transportation lines, and use the jungle as cover to evade the Japanese."[8] These trained commandos, later known as the Chindits, would test Wingate's concept of LRPGs during Operation LONGCLOTH.[9] Overall Operation LONGCLOTH was a success and the Chindits, along with Wingate, learned what it would take to counter the Japanese in this theater of operations. This operation demonstrated the potential utility and effectiveness of the LRPG concept.[10]

Although successful on many levels, Operation LONGCLOTH was not without significant operational challenges. For example, "On 13 February 1943, the long-range penetration group under Wingate headed into Burma, more than 3,000 men divided into two groups. They walked, carrying all their gear; mules carried heavier equipment. Wingate's hope was to deceive the Japanese into thinking it was the main force and was headed to Mandalay."[11] His deception plan failed to achieve its desired

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[7] Richard W. Boltz. *Phil Cochran and John Alison: Images of Apollo's Warriors.* School of Advanced Air and Space Studies. Maxwell Air Force Base, Alabama. June 2001. Pg. 64.
[8] Mason et. al, *Operation THURSDAY,* 6.
[9] Chindit was an Anglicization of the term for the unit's symbol, a *chinthe* or mythical Burmese lion. Herbert A. Mason, Randy G. Bergeron, and James A. Renfrow. *Operation Thursday: Birth of the Air Commandos*. Washington, DC: Air Force History and Museums Program, 1994. Pg. 6-7.
[10] Mason et. al, *Operation THURSDAY,* 7.
[11] Denis R. Okerstrom. *Project 9: The Birth of the Air Commandos in World War II.* University of Missouri Press, 2014. Pg. 30.

effect. Shortly after the Chindits began their movement, the Japanese successfully ambushed two columns, resulting in many casualties.[12]

Despite this initial setback, Wingate's Chindits continued to press forward, deeper into the jungle. By the end of the operation, however, his men were exhausted and under continuous pressure from the Japanese. Faced with such adversity, Wingate decided the Chindits needed to retreat out of the jungle.[13] He retreated even though he did not feel like as though he accomplished his goal.[14] He knew it was the right decision but was worried about the potential consequences of his actions.

Once back in Imphal, the effects of operating at long distances behind enemy lines in the jungle were apparent on the faces and in the demeanor of the remaining Chindits. One author characterized this the following way: "When they staggered back into Imphal, the Chindits were a depleted force; men were emaciated, haggard, and hollow-eyed. About 450 were killed; 430 were left behind or known to be prisoners of war. Only 650 were considered fit for duty."[15]

Wingate feared Operation LONGCLOTH was a failure. British Prime Minister Winston Churchill nevertheless surprised him. Wingate, who was expecting to be court-martialed, was summoned by Churchill to London to discuss his concept of long-range penetration. Soon, Wingate would find himself dining with Churchill discussing Operation LONGCLOTH and the after action report he wrote describing the events and their outcome. The meeting was far from the court-martial Wingate had expected.[16] Churchill was enamored with Wingate and his ideas for

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[12] Okerstrom, *Project 9,* 31.
[13] David Rooney. *Wingate and the Chindits: Redressing the Balance.* London: Arms and Armour Press, 1994, Pg. 91.
[14] Okerstrom, *Project 9,* 32.
[15] Okerstrom, *Project 9,* 33.
[16] Okerstrom, *Project 9,* 33.

defeating the Japanese in Burma. Churchill thought of Wingate as a "daring leader, a man of genius and audacity,"[17] and not long after meeting with Churchill, Wingate found himself promoted to Brigadier General.

Wingate's meeting occurred during the high-level Allied Quadrant Conference to discuss the strategy for the war. Discussions at this conference would set planning for Operation THURSDAY into motion.[18] The Allied leaders listened to Wingate describe his long-range penetration concept in detail. They agreed that along with flying supplies over the "Hump," air support would also be required for the LRP plan Wingate envisioned.[19] President Franklin Roosevelt agreed to use American air power the next time Wingate would implement his concept, and "directed General Henry H. (Hap) Arnold, Commanding General of the U.S. Army Air Forces, to solve Wingate's resupply and evacuation problems."[20]

Resupply of the Chindits at night was one aspect of Operation LONGCLOTH where the Royal Air Force (RAF) did not meet Wingate's expectations. In fact, Wingate was unimpressed with the RAF's previous efforts.[21] Additionally, morale among the Chindits fell when it became clear there was no way to evacuate their wounded or casualties. The

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[17] Okerstrom, *Project 9,* 33.

[18] Okerstrom, *Project 9,* 33; Herbert A. Mason, Randy G. Bergeron and James A. Renfrow. *Operation THURSDAY: Birth of the Air Commandos.* [Washington DC]: Air Force History and Museums Program, 1994. Pg. 7. This conference was a meeting of the Allied states to discuss future courses of action. General Wingate would brief his plan on LRP at this conference. and stressed the importance of resupply and casualty evacuation.

[19] The "Hump" was the nickname for an airlift mission conducted over the most rugged terrain—the Himalayan Mountain range. Pilots of transport aircraft were innovative in how they would carry out their mission of resupply delivering over 740,000 tons of cargo. For more information, see John D. Plating. *The Hump: America's Strategy for Keeping China in World War II*. College Station, TX: Texas A&M University Press, 2011.

[20] Mason et. al, *Operation THURSDAY,* 8.

[21] Mason et. al, *Operation THURSDAY,* 6-7.

unwounded Chindits confronted this reality during Operation LONGCLOTH when they left their wounded comrades behind. As a result, Roosevelt confronted General Arnold with solving two problems: resupply at night, and evacuation of the wounded and dead.

General Arnold called two officers to meet him in his Washington office. The officers he called were Lieutenant Colonel Philip Cochran and Lieutenant Colonel John Alison.[22] Both were fighter pilots who wanted to see combat against the Germans in Europe. As a result, neither was eager to accept the commanding officer position in the China-Burma-India Theater. They both believed the decisive theater of action was Europe and that is where they wanted to go. General Arnold, however, had other plans in mind for these two. He directed them to become co-commanders on a new project aimed at helping Wingate plan the aerial portion of his LRP concept. This new project served as the genesis of what became known as "Project 9."

Neither Cochran nor Alison was enthusiastic about their new positions. They came up with their plan for supporting the Chindits and presented General Arnold with what they would require. While these two officers took their responsibilities seriously, both were secretly hoping that General Arnold would reject their proposal as too outlandish and throw them out of his office. In fact, just the opposite occurred, and General Arnold signed the plan for approval and directed both Cochran and Alison to implement it.[23]

With the approved plan from Arnold, Alison and Cochran needed to find the right mix of individuals and equipment to conduct a successful mission. The first task they had was finding the right personnel to create and carry out the new mission.[24] First, they reached out to those pilots

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[22] Okerstrom, *Project 9,* 69.
[23] Okerstrom, *Project 9,* 80.
[24] Philip D. Chinnery. *Air Commando*. New York, NY: St. Martin's Paperbacks. 1997. Pg. 6.

they knew to man their aircraft. Along with putting "faces to cockpit spaces," they also had to outline the requirements for organizational leadership, personnel, and training.[25] While Cochran and Alison were expert fighter pilots, they recognized their limited knowledge about the other types of aircraft required for the operation. For this reason, they asked around and solicited help to ensure the right person was in the right job.[26]

The men they were looking for needed to be committed to the mission, as well as innovative, aggressive and determined, motivated, and have a "can-do" attitude. When General Arnold told Cochran and Alison, "to hell with all the paperwork, just get the job done," he set the tone for Project 9.[27] Through a combination of luck and skill, Cochran and Alison quickly found men with these attributes.

With a number of bureaucratic hurdles out of the way, the Air Commando leaders were free to do what they needed to get the job done. In fact, General Arnold armed Cochran and Alison with a letter to protect the Air Commandos and to give them all the support they required to get the job done. Known as the "Dear Dicky" letter, General Arnold wrote it to ensure the Air Commandos would remain autonomous and theater commanders would not attempt to control or dismantle the group.[28]

The treatment Alison and Cochran received from Army Air Forces leadership, all the way up the chain of command to General Arnold, ensured Project 9 received sufficient support to get off the ground. Alison, not known for following the regulations, focused on getting the job done. Both Cochran and Alison focused more on training for the mission and the actual mission rather than the rigid rules and

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[25] Okerstrom, *Project 9,* 81.
[26] Okerstrom, *Project 9,* 83.
[27] Andrew Wax. *Born in the Jungles of Burma: Behind Enemy Lines in the China-Burma-India Theater of Operations.* Cambridge Scholars Publishing, 2010. Pg. 61.
[28] Mason et. al, *Operation THURSDAY,* 20.

regulations. Their leadership style left “a spirit of cooperation and a high morale” among the troops.[29]

While Air Commandos were always aware of who was leading them, rank structure was not important within the organization. If asked to accomplish a task, each member would complete it without question. Officers and enlisted men worked side-by-side to accomplish the primary goal and not to adhere to the regulations just because they were the rules. These men were professional enough and knew they needed to tighten up their military bearing when senior ranking visitors came, but the number one priority was still to get the job done. A primary attribute of the success of Project 9 was the "can-do” attitude of its personnel, a key trait of Air Commandos.[30]

Along with the personnel, the equipment to complete the mission also had to be handpicked. Cochran and Alison had assembled a force of fighters, transports, gliders, light planes, bombers, and even a new capability, the helicopter.[31] The force would be further broken down into three sections: airlift, assault, and light force.[32] Table 1 below lists the airframes and numbers for aircraft available to Project 9.

[29] Mason et. al, *Operation THURSDAY,* 18.
[30] Mason et. al, *Operation THURSDAY,* 25.
[31] Mason et. al, *Operation THURSDAY,* 15.
[32] Mason et. al, *Operation THURSDAY,* 12.

Table 1: Aircraft used in Operation THURSDAY

Air Power for Project 9	
Troop gliders (CG-4A)	150
Light planes (L-1/L-5)	100
Fighters (P-51A)	30
Training gliders (TG-5)	25
Large transports (C-47)	13
Small transports (UC-64)	12
Bombers (B-25H)	12
Helicopters (YR-4)	6
Total	348

Source: Operation THURSDAY: Birth of the Air Commandos. Pg. 15

In addition to the right aircraft, the men of Project 9 also had the newest weapons. Still in the experimental and testing phase by the Allies, Cochran and Alison decided air-to-ground rockets were required for their fighter aircraft. Unfortunately, the rocket launch tube did not work with the P-51A Mustang, so Cochran and Alison challenged the men of Project 9 to create one that would. This endeavor proved successful and Air Commandos employed airborne rockets during Operation THURSDAY.[33]

Other equipment proved troublesome but not impossible to acquire for the new unit. In order to meet the task of removing the dead and wounded from the jungle, the mission required a vertical lift capability only available in helicopters. With less than a dozen helicopters in existence and all still being tested, obtaining the six helicopters the men would use during Operation THURSDAY would initially prove challenging. Cochran and Alison ran into a roadblock with the test and evaluation engineers at Wright Field who "were adamant [that] no way in hell were the helicopters leaving Wright Field… they would not be

[33] Okerstrom, *Project 9,* 95.

released to anyone not even General Arnold."[34] Thanks to Alison and Cochran's unceasing efforts, the engineers released six and made them available for the Air Commandos to use for Operation THURSDAY. When General Arnold inquired on how the Air Commandos obtained the latest piece of equipment, Cochran and Alison responded, "General, you just have to know the right people!"[35]

These two leaders asked for specific volunteers from throughout the Army Air Forces to fill specialized staffing vacancies. The volunteers "were not told where they were going or what they were going to do, only that the operation would involve combat, that it would last no more than six months—and that they shouldn't expect any promotions."[36] The selected individuals would form the nucleus of what later became the Air Commandos.

Training the first Air Commandos lasted a little over a month, beginning in October 1943 and ending later in November 1943. The new group of Air Commandos totaled 523 men, all of who were experienced. Training built upon their experiences to enable adaptable support for the Chindits. In December 1943, less than one month after their initial training, the Air Commandos would start training with the Chindits in the theater. After only 10 days, this elite group of Air Commandos would conduct their first operational mission, and, as one Air Commando concluded, "It was very much a case of on-the-job training."[37]

CONCLUSION

Acquiring the right pilots, maintenance, and leadership and the right aircraft, missiles, and equipment was a key aspect of the success of

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[34] Okerstrom, *Project 9,* 96.
[35] Okerstrom, *Project 9,* 96.
[36] Orr Kelly. *From A Dark Sky: The Story of U.S. Air Force Special Operations*. Novato, CA: Presidio Press, 1996. Pg. 18
[37] Kelly, *Dark Sky,* 19-21

Operation THURSDAY and the birth of the Air Commandos. When Roosevelt ordered "Hap" Arnold to develop a force to support the Chindits, the latter did not have specific requirements in mind. He put two young leaders, Lieutenant Colonel Philip G. Cochran and Lieutenant Colonel John R. Alison, in charge of developing the force.[38] These two leaders put together a plan that far exceeded the expectations or ideas General Arnold had at the time.

Understanding how the Air Commando were created, how and why Alison and Cochran chose certain men, the equipment they required, how they received it, and the support they had from their leadership, is important for a number of reasons. First, the history of Project 9 establishes a benchmark and allows comparison with more recent efforts to stand up special air capabilities. Second, it identifies the difficulties in standing up a new program. Third, it highlights what is required, not only from those conducting the mission, but also the leadership, to ensure mission success.

Expectations for Alison and Cochran, as well as the initial U-28 cadre, were high and the timeline to deliver new capabilities was compressed. The next chapter details how an established unit created a new program with the MC-130H as well as how four initial cadre members built the U-28 program. While the circumstances were different with these two programs—one build during peacetime, and the other during war—the approach each took to build their respective program remains the same.

Chapter 3

Training Evolution

To prepare for the future, special operations forces need to adapt to the changing nature of warfare by challenging

[38] Kelly, *Dark Sky,* 15

conventional thinking and examining new options and operational concepts for the conduct of special operations in traditional and nontraditional environments. They need to consider possible changes in doctrine, roles, missions, and force structure and to examine new options and operational concepts.

- Gen Hugh Shelton

The creation of Air Force Special Operations Command (AFSOC) followed the same logic as the creation of the first Air Commandos—each was built on a foundation of experience. This chapter identifies how AFSOC relies on experienced personnel to create its training program. A brief description on how AFSOC became a major command (MAJCOM) will help identify influences on AFSOC training programs today. This chapter will use two platforms, the MC-130H and the U-28, to show this overreliance and highlight how this led to a potential missed opportunity when creating the latter's training program.

BUILDING AIR FORCE SPECIAL OPERATIONS FORCES

In 1987 Congress ordered the creation of a new Combatant Command, United States Special Operations Command (USSOCOM). To staff this new combatant command, USSOCOM took experienced individuals from each of the services. Initially, the 23rd Air Force, originally a part of Military Airlift Command (MAC), was the Air Force component of USSOCOM.[1] MAC transferred personnel along with several different types of specialized aircraft to the 23rd Air Force. These specifically modified aircraft met the needs and demands of USSOCOM meaning MAC transferred the right people and the right tools to ensure

[1] Clark A. Murdock. "Special Operations Forces Aviation at the Crossroads." Center for Strategic and International Studies. Washington, D.C., September 2007.www.csis.org. Pg. 16.

appropriate support and success for unconventional and complex joint missions.[2]

The 23rd Air Force remained the Air Force component of USSOCOM until May of 1990. At that time, the 23rd Air Force separated from MAC to become a MAJCOM for the Air Force called Air Force Special Operations Command (AFSOC).[3] MAC no longer controlled the specialized aircrew and aircraft, now part of an elite group in AFSOC. This specialized fleet of aircraft was small in number and consisted primarily of variants of the C-130 aircraft MAC flew.[4] AFSOC continued to grow its fleet and the total force structure went from approximately 68 total aircraft and five variants (see Table 2 below) to 108 aircraft and seven variants, including the MH-53 helicopter, just before September 11, 2001 (see Table 3 below).

The men who flew these aircraft were specialized operators with special training to conduct their missions. Many aircrew members were trained on basic flight fundamentals by MAC which allowed AFSOC to focus on teaching the new trainees advanced tactics and techniques centered on their particular platform's mission. Once aircrew became proficient and deemed experts in MAC missions, they could be identified for consideration to fly AFSOC aircraft. MAC generated a large pool of potential aircrew, which allowed AFSOC to be selective when identifying its next members. The capability to select the best candidate, normally the most experienced, generated an AFSOC standard that only experienced personnel would be accepted into special operations.[5] The

[2] Murdock, Special Operations Forces Aviation, 16.
[3] Murdock, Special Operations Forces Aviation, 16.
[4] Murdock, Special Operations Forces Aviation, 18.
[5] While AFSOC may have had a choice in who came to AFSOC, there was no accessions process or program in place.

ability to choose experienced personnel quickly became an AFSOC requirement.[6]

Table 2: AFSOC aircraft in 1990

AC-130H	9
AC-130A	8
MC-130E	14
HC-130P	30
EC-130E	7
TOTAL	68

Source: Special Operations Forces Aviation at the Crossroads.

Table 3: AFSOC aircraft in 2001

AC-130H	8
AC-130U	13
MC-130E	14
MC-130H	20
MC-130P	17
EC-130E	5
MH-53	31
TOTAL	108

Source: Special Operations Forces Aviation at the Crossroads.

AFSOC TRAINING: MC-130H COMBAT TALON II

Starting in 1990 AFSOC grew in numbers, responsibilities, and new platforms, but the mission sets remained similar. The "[Special Operations Forces] SOF capabilities were frequently used in raid missions and advisory and assistance, [so] there was little incentive for

[6] Major Matthew Powell. "Keeping the Dagger Sharp: A Comparison of MC-130H and MH-47E Selection and Training Methods." U.S. Army Command and General Staff College. Fort Leavenworth, KS. 17 June 2005. Pg. 24.

big changes in long-range strategic planning for modernization of SOF."[7] Maintaining mission set proficiency was the Command's focus. Since the new platforms only offered a slight change in aircraft technology and existing capabilities, the Command could continue to train as it always had in the past, teaching experienced aircrew members advanced tactics and techniques for their specific platform.[8]

One of the new platforms during this time was a specialized variant of the C-130 within AFSOC, the MC-130H Combat Talon II. USSOCOM created the MC-130H in an attempt to make up for a capability gap discovered as a result of the failed attempt to rescue American hostages held in Iran in 1980.[9] A little over ten years after Congress authorized the MC-130H Combat Talon II program, the formal training began with the first class scheduled to start in October 1991. The growth of the MC-130H would benefit from AFSOCs ability to use the experienced MAC trained aircrew.[10] Additionally, the mission of the MC-130H was so

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[7] Murdock, Special Operations Forces Aviation, 3.

[8] Stephen P. Randolph. *Powerful and Brutal Weapons.* Harvard University Press. Cambridge, Massachusetts 2007. Pg. 53; Hobgood, Charles. "Lessons from Vietnam." Personal interview. 28 Nov. 2015 Mr. Charles Hobgood, the author's father-in-law, flew AC-130A aircraft in Vietnam. All rated aircrew had previous experience flying C-130 aircraft before beginning AC-130 training. After nine flights, these aircrew members were qualified to conduct their mission in Vietnam. For the AC-130A, the mission was hunting trucks carrying supplies and each member became an expert in their mission set.

[9] Air Force Special Operations Command. "History of the 58th Special Operations Wing July - December 1995." Volume I. Assigned to 19th Air Force, Air Education and Training Command. United States Historical Research Agency. Pg. 29

[10] Jerry L. Thigpen. *The Praetorian Starship: The Untold Story of the Combat Talon.* Maxwell Air Force Base, AL: Air University Press, 2001. Pg. 294. In the 1990s, AFSOC trained the aircrew similarly to how the AC-130 aircrew trained for Vietnam. Each C-130 variant in AFSOC had a unique mission set and the aircrew would train to become an expert in one particular weapon system or special mission variant. For example, the capabilities of the MC-130E included helicopter aerial refueling and the Fulton STARS recovery system. Initially, the MC-130H did not have these capabilities.

similar to the MC-130E that aircrew cross-trained from the MC-130E to the MC-130H and brought this experience to the new platform.[11]

Throughout the development of the MC-130H, SOF deployed in support of conflicts around the world. While the program underwent several setbacks, such as Initiative 17, procurement of the current radar set, and an increase in requirement of the total number of platforms, AFSOC leaders expected to have 24 MC-130H aircraft in the operational fleet by the end of 1993.[12] In preparation for initial operational capability of the Combat Talon II, the formal courseware for the pilot and navigator positions was complete in January of 1991. The loadmaster and flight engineer courseware was finalized in May.[13] AFSOC projected 28 fully trained and qualified aircrew sometime in 1992.[14]

The MC-130H training program followed the model of the first Air Commandos by using experienced volunteers from other platforms. The mission for the MC-130H used newer technology but differed only slightly from the MC-130E, leaving many fundamentals and skills unchanged. The aircrews' prior experience allowed training on the Combat Talon II to focus on advanced skills, identifying the differences between the old and new technologies, and new tactics, techniques, and procedures.

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[11] Thigpen, *The Praetorian Starship,* 292.
[12] Thigpen, *The Praetorian Starship*, 294-296
[13] Air Force Special Operations Command. "History of the 1550th Combat Crew Training Wing: January 1990 – June 1990." Volume I. Assigned to twenty-Second Air Force, Military Airlift Command. United States Historical Research Agency and Air Force Special Operations Command. "History of the 1550th Combat Crew Training Wing: 1 July – 30 September 1991. 542d Crew Training Wing 1 October 1991 – December 1992." Volume I. Assigned to Twenty-Second Air Force, Air Mobility Command. United States Historical Research Agency. Pg. 13
[14] Air Force Special Operations Command. "History of the 1550th Combat Crew Training Wing: 1 July – 30 September 1991. 542d Crew Training Wing 1 October 1991 – December 1992." Volume I. Assigned to twenty-Second Air Force, Air Mobility Command. United States Historical Research Agency. Pg. 30

Many crewmembers, for example, were already trained and skilled in conducting airdrop and airland missions. These crewmembers simply needed to understand how to do these missions using the newer technology in the MC-130H. With their tactical background and understanding of the basics, instructors could train aircrew to focus on specific MC-130H requirements and procedures. Additionally, training crewmembers with experience in other platforms was useful as they brought an outside experience to generate new ideas and foster creative thinking.

Throughout the years, the Combat Talon II training program continued to instruct and produce competent and qualified crewmembers, building on previous experience. This design allowed the Combat Talon II training program to focus on instructing more advanced techniques and procedures rather than teaching the fundamentals of flight. Recruitment of individuals on their second or third operational assignments gave the squadron the experience they needed. These individuals, however, did not stay in the squadron long. By the time they crewmembers arrived, most only had a few years before AFSOC personnel would consider them for professional military education, staff positions, and other positions unrelated to flying.

The MC-130H training program, however, could not fully rely on receiving only previously experienced aircrew members. Knowing the timeline and risks associated with only relying on experienced personnel, AFSOC leaders changed their perspective.[15] They were willing to receive some, but very few, first-time operational assignment crewmembers from the training pipeline. These crewmembers did not have the benefit or

[15] The author received an e-mail on January 15, 2016, from an anonymous source relaying how AFSOC leadership reviewed the impact of retraining only previously qualified aircrew. The result of this review showed particular issues concerning long-term payback from these experienced personnel. The specific information regarding this topic is for official use only and is not listed in this thesis.

experience in conducting airland or airdrop missions prior to receiving MC-130H training. Furthermore, they did not have the fundamental knowledge of basic C-130 skills, which created issues with the training programs. This inexperience required new aircrew members to receive additional training beyond what the original MC-130H training program directed.

The ability for AFSOC to unofficially select who was assigned would quickly dwindle once Operation ENDURING FREEDOM (OEF) and Operation IRAQI FREEDOM (OIF) began. AFSOC manning would begin to show signs of stress in only a few years. Additionally, MAC and its successor, Air Mobility Command (AMC), had its own operational commitments to meet in the 1990s.[16] Both AMC and AFSOC aircrew suffered constant deployment and, as a result, many aircrew members were leaving the Air Force. The reduction of available aircrew left a greater number of less experienced aircrew entering AFSOC. In a matter of a few years, AFSOC manning showed signs of declining experience with no relief in sight. The 2006 Quadrennial Defense Review Report (QDR) highlighted the demand for longer deployments and more demanding missions from SOF, requiring AFSOC to increase their manning. To meet this demand, AFSOC needed to take new aviators straight from Undergraduate Flight Training (UFT) schools creating a flood of inexperienced personnel.[17]

The influx of these inexperienced personnel required AFSOC to shift its training focus. At the same time, AFSOC received requests for new and emerging requirements from the supported ground forces

[16] MAC changed to AMC in 1992

[17] Captain Daniel Jackson. "319 Special Operations Squadron History." Personal interview. 26 Jan. 2016.

causing new mission sets.[18] AFSOC missions were no longer limited to the infiltration/exfiltration and close air support (CAS) missions of the past. While these missions were still necessary and required, ground SOF also needed intelligence, surveillance, and reconnaissance (ISR) platforms, small aircraft dubbed non-standard aviation (NSAv) or light-tactical fixed-wing (LTFW), unmanned aerial systems (UAS), and a variety of new weapons and capabilities to support their growing operations.[19] Training proved problematic as the experience pool upon which AFSOC manning once relied on dwindled and the requirements for additional mission sets increased.[20]

Losing the experienced pool of aircrew, obtaining new emerging capabilities to support ground SOF, and the committing its SOF forces for constant deployment are a few aspects that played a role requiring a changes in AFSOC training. The 2006 QDR stated, "The future special operations force will be rapidly deployable, agile, flexible and tailorable to perform the most demanding and sensitive missions worldwide. As general purpose joint ground forces take on tasks that Special Operations Forces (SOF) currently perform, SOF will increase their capacity to perform more demanding and specialized tasks, especially long-duration, indirect and clandestine operations in politically sensitive

[18] The new requirements included U-28, C-145, and C-146 platforms. Additionally, the ground SOF would request AFSOC aircrew to use new capabilities such as HPW. All of this required training and relying on experience was not an option.
[19] Some new weapons and capabilities include: Griffin missiles, low-cost low-altitude (LCLA) parachute, Harris Proprietary Waveform (HPW),
[20] In 2012, the author interviewed several members of the C-145 schoolhouse. Several of these members were initial cadre members and created the training program, and some of the individuals were a part of building the U-28 training program as well. A few individuals came to AFSOC due to the TAMI-21 initiative and had very little experience flying. None of these individuals had any experience in the missions, airland and airdrop, for which they were creating a training plan.

environments and denied areas," thus solidifying SOF commitment.[21] AFSOC's force structure was built more for episodic rather than sustained deployments. Air Commandos, however, found themselves on prolonged deployments. It did not take long for AFSOC leadership to identify the deployment rotations were unsustainable with the current force structure.

Operation ENDURING FREEDOM BEGINS

When OEF started on 7 October 2001, the Commander of AFSOC, Lieutenant General Clay Bailey, foresaw the requirements political and military decision makers placed on his Command. He knew this war was unlike any other conflict in the recent past and required the deployment of all AFSOC capabilities. The Command maintained its manning for both "short duration missions and deployments," as well as the "large special operations exercises and three-month rotations in support of no-fly zones in small numbers."[22] Beyond the need for all capabilities, Lt. Gen. Bailey could not know how prolonged the deployment of his forces might be. Deployments would be for an unknown length of time and he would not have the resources or personnel to hold forces back to sustain a rotational schedule. Entire units would deploy and stay in place until the initial combat operations concluded.[23]

At the beginning of the war, Lt. Gen. Bailey was comfortable with the quality and training of the aircrews who flew these specialized aircraft. He was relieved to know that most of them had flown, at one point or another in the past ten years, the mission for which they were trained to do in a conflict or combat role. During the 1990s, many

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[21] United States Department of Defense. *Quadrennial Defense Review Report 2006*. Washington, DC, February 6, 2006. http://www.defense.gov/qdr/report/report20060203.pdf. Pg. 43-44

[22] Murdock, Special Operations Forces Aviation, 15

[23] Murdock, Special Operations Forces Aviation, 23

aircrew members were able to hone their skills during the conflicts in the Gulf War in Iraq, the Balkans, and Somalia. This level of aircrew experience was a source of comfort to Lt. Gen Bailey as he sent them to fight in Afghanistan.[24] Bailey, in other words, had the benefit of an experienced force to send.[25]

While at the beginning of OEF the question of how AFSOC could maintain its operations tempo (OPTEMPO) with the same quantity and quality of forces remained. After the first few months, AFSOC leaders needed to deploy aircrew members immediately upon completion of the basic initial qualification course to sustain the OPTEMPO. Deploying them quickly became a Command priority. In some AFSOC squadrons, aircrew members deployed immediately upon qualification did not have the luxury of developing their skills in a benign training environment. The faster the AFSOC training schoolhouse could produce a qualified aircrew member, the sooner the operational squadron could deploy him or her. The rationale behind this decision was clear. Sending an Air Commando forward meant one deployed could return home.

Aircrew experience helped AFSOC manage the initial deployments for OEF and made it was easy to deploy aircrew. Since such aircrew were previously flight trained, they required fewer flying hours to become fully qualified and presented less risk to the overall mission. As OEF progressed, the requirements for more than just C-130-based special mission air support increased. In particular, USSOCOM Commanders expressed the need for more ISR capabilities. AFSOC answered USSOCOM's call for support as quickly as it could.

The commanders at the highest levels within AFSOC also wanted to develop additional ISR capabilities for two reasons. The first was the ability to monitor and support special operations as they were unfolding

[24] Murdock, Special Operations Forces Aviation, 19.
[25] Murdock, Special Operations Forces Aviation, 19.

in real-time. The second reason was to improve their overall situational awareness well in advance of missions to assist in planning. Commanders were able to monitor missions in real-time, but the capability to do so was limited in number and resided at the national or strategic level. As the War on Terror increasingly became a conflict spearheaded by SOF, AFSOC commanders naturally wanted to have ISR coverage for missions under their control. Commanders and warfighters alike understood the benefits that expanded ISR coverage brought. The demand for ISR would continually exceed the available capacity.

Within AFSOC, staff at the headquarters and elsewhere brainstormed different avenues they could take to increase ISR capability for SOF users. One route was unmanned ISR in the form of remotely piloted aircraft, or RPAs. Another route, which became a reality between 2004 and 2005, was the idea for a manned ISR platform, the U-28. The procurement of the airframe, driven by the urgency of an immediate wartime requirement, occurred quickly. As one author puts it, "The diverse Special Operations Command mission requirements generated a need for small number of mission specific aircraft which was procured rapidly to address specific mission needs."[26] The demands of the ISR mission necessitated a quick response from AFSOC. Falling back on known techniques for building a force, the U-28 community drew its talent from other experienced aircrew flying different platforms. AFSOC leaders would soon realize this method was unsustainable.

U-28 TRAINING

Born out of a wartime requirement, the U-28 has become one of AFSOC's primary platforms. The U-28 is a heavily modified version of the commercially available Pilatus PC-12 single-engine aircraft. When

[26] http://www.af.mil/AboutUs/FactSheets/Display/tabid/224/Article/104607/u-28a.aspx (accessed 27 January 2016)

initially fielded, AFSOC did not purchase but leased the aircraft, as its leaders saw it as a stopgap measure only. In 2005, AFSOC selected only 32 pilots to fly the aircraft and maintain the program. Although not originally intended to become a program of record, or a permanent part of the AFSOC fleet, SOF need and desire for these platforms and their capabilities drove their retention and expansion beyond these initial numbers.

The initial pilots selected in 2005 were already well-trained and qualified. Within three years, however, this number rose from 32 initially to 122 by 2008.[27] Due to the number of pilots required in the short timeframe, the unit needed to look outside of AFSOC to find experienced pilots. Starting in late 2007, AFSOC received the first of the TAMI 21 pilots from Air Combat Command (ACC). The TAMI 21 program transitioned pilots from the fighter and bomber communities to either AFSOC or RPA positions. Approximately 45 former fighter or bomber pilots became part of AFSOC flying a single-engine propeller aircraft.[28]

The U-28 program continued to grow after 2008. Even though the number of U-28 pilots almost quintupled, the units they were staffing still needed more. SOF requirements and demand for U-28 support to missions continued to grow beyond the squadron's capacity it seemed no matter how pilots were available. The 319th Special Operations Squadron would be required to take first operational assignment pilots, also known as pipeline individuals. The "demand signal" from other SOF for support from the U-28s substantially outweighed the available supply, much less obtain and maintain the appropriate staffing of the unit with experienced SOF pilots only.

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[27] Captain Daniel Jackson. "319 Special Operations Squadron History." Personal interview. 26 January 2016.

[28] William W. Taylor, James H. Bigelow, and John A. Ausink. "Fighter Drawdown Dynamics Effects on Aircrew Inventories." RAND Corporation, 2009. Pg. 73.

The manning challenges for the U-28s only increased. As the U-28 program took shape, another manning problem arose. The U-28 was normally crewed with a pilot and co-pilot. Operational use made it clear that a third crew position would be necessary as the number of ISR sensors on the aircraft increased. Manning problems expanded beyond pilots to include sensor operators. The initial cadre of U-28 operators was at a loss on what to call this position or where to look for manpower. The initial request for forces (RFF) went out across the Armed Services, and the Navy provided the staffing. The crew compliment for the U-28 started to take shape. As with the MC-130H program, it was built upon all experienced personnel.

The difference with the training programs of the MC-130H and the U-28 was the conditions under which they were created. The MC-130H program occurred in an evolutionary manner from the MC-130E one in peacetime, while the U-28 program more closely resembled conditions of the 1st Air Commando Group during the Second World War. As discussed in the previous chapter, Lieutenant Colonels Cochran and Alison "had been handed a rare opportunity: authorization to plan an entirely new concept of warfare, with few, if any, limits on what they could do or what assets they could use."[29] In the case of the U-28, building and staffing a program to develop a new AFSOC capability proved difficult. However, the four initial cadre pilots were given considerable latitude in the development of the U-28 training program.[30] All four had experience flying the PC-12 aircraft and were familiar with the performance capabilities and limitations. Their extensive knowledge of the aircraft, gained from working in other units, gave them instant credibility to instruct others on the platform.

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[29] Dennis R. Okerstrom. *Project 9: The Birth of the Air Commandos in World War II.* University of Missouri Press, 2014. Pg. 79.
[30] Okerstrom. *Project 9,* 79.

These four individuals built the U-28 program from the ground up. As previously highlighted, sufficient staffing for the U-28 unit was a constant issue from the beginning. There were more questions than answers for the initial cadre of pilots. Such questions included the following: What would the crew complement for the aircraft be? Where would the program obtain experienced personnel? What were the specific tasks of each of the crewmembers? What was it that AFSOC, and the other SOF users, were asking this platform to do? Finally, what would the training look like for this platform to sustain it?

Simultaneously building a training program for the U-28 platform and meeting mission requirements was no easy task. The initial cadre knew AFSOC's intention was to use the U-28 as a stopgap measure until a more permanent solution could be created. Knowing the program was only temporary led to problems in developing a robust training program. AFSOC handed the four initial cadre members a concept of operations (CONOPS) which would be the source document driving the Command's desired outcomes for the program.[31] They decided to create an 11-ride syllabus to train the incoming pilots on the capabilities and limitations of the aircraft. Operational mission training would eventually follow.

The training of the pilots and for the additional crew position would not follow AFSOC's formalized training plan or profile for other platforms. Much of the training for the U-28 occurred on a trial and error basis to see what worked. Additionally, the U-28's mission was unclear and constantly modified by users, resulting in changing requirements, depending on the particular need at the time. Beyond what little formalized training existed, pilots within the U-28 program passed employment procedures to incoming personnel by word-of-mouth. What worked for a particular pilot on a given day under certain

[31] Captain Daniel Jackson. "319 Special Operations Squadron History." Personal interview. 26 Jan. 2016.

operational circumstances and conditions became the accepted way of doing business.

From the U-28's program inception in 2005 until early- to mid-2009, the 319th trained all of the incoming personnel with informal courseware. This courseware passed from pilot to pilot. In addition, little of the courseware, including mission procedures, was written down.[32] Squadron members, as opposed to specifically designated instructors, conducted training within the 319th. The initial four cadre members only standardized one item in the program's training syllabus, the number of flights for incoming pilots. As there was no formal training for new pilots, the focus of these flights could vary depending on which instructor was in charge. While this training approach met the capacity requirements for the unit, it was nevertheless an ad hoc method. The U-28 training program for the 319th received formal courseware in 2009, after four years of experimentation. Until then, no official standard existed when it came to instructing the mission of the U-28. With official courseware, all crew positions within the U-28 now had a baseline of information necessary to conduct their mission effectively. Despite formal training methods, internally within the 319th and externally within AFSOC, the U-28 program was a stopgap.

The formal training program for the U-28 came just in time to train a flood of inexperienced personnel. In 2008, the U-28 community received an abundant number of pipeline pilots, as many as six at a time. These new, inexperienced pilots arrived fresh from Undergraduate Pilot Training (UPT). In addition to an influx of pilots, AFSOC validated the requirement for the third crew position as a combat systems operator (CSO). Because the CSO program at Pensacola Naval Air Station (NAS), FL had just begun, the U-28 program relied on experienced navigators

[32] Captain Daniel Jackson. "319 Special Operations Squadron History." Personal interview. 26 Jan. 2016.

and electronic warfare officers (EWOs) from other AFSOC platforms. However, personnel from either of these positions were untrained for U-28-specific requirements. As a result, Navy personnel continued to fill the third crew position until 2013. Eight years after the U-28 was created as an ISR stopgap measure, its staffing and training solidified and AFSOC would eventually make it a program of record.

CONCLUSION

Prior to its creation, Congress included in the Defense Authorization Act provisions for USSOCOM to receive its own funding. This line of funding fell "within the Department of Defense's budget under Major Force Program 11 (MFP-11) [which would cover] major costs such as personnel, operations and maintenance, and the SOF-unique part of the acquisition costs of selected aircraft upgrades."[33] This assured line of funding, combined with increasing mission demands, meant USSOCOM would see its budget grow to maintain the appropriate capabilities and forces on hand. Such changes, however, did not affect the SOF cultural mindset. Within USSOCOM and the 23rd Air Force, SOF leadership fell back on what they knew in terms of maintaining platforms and creating training programs.

Few at the time could envision USSOCOM's evolution into what it is today and the future of the newly created SOF organization was anything but secure. Within the nascent AFSOC, there was disagreement on which direction the force should take. One author has explained the root of the disagreement within AFSOC in the following way: "Most thought of SOF in two ways: as a specialized capability best used for raids in extreme circumstances, and advisors and trainers to foreign military forces."[34]

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[33] Murdock, Special Operations Forces Aviation, 2-3.
[34] Murdock, Special Operations Forces Aviation, 3.

Congress originally authorized the structure and organization of both USSOCOM and AFSOC to support small, specialized forces. When USSOCOM was created in 1987, its leadership "accepted the legacy of how SOF aircraft were designed and procured. Aircraft already in existence – either obsolete aircraft retrieved from the bone yard or aircraft still in use – would be modified into SOF variants."[35] For these various reasons, 23rd Air Force built its force structure in a highly restricted manner to support a small ground force with limited mission sets.

Relying on previous experience and expertise allowed members of the 23rd Air Force to build mission sets around the tools and personnel available at the time. These members used their experience to create a small but capable Air Commando force that provided creative, highly specialized airpower solutions. Unfortunately, such specialization would limit the ability of force staffing and structure to grow and adapt to unforeseen mission sets. Few predicted the sustained operations, and prolonged use of SOF aviation assets, in a dramatically expanded number of mission sets required to support ground forces after September 11, 2001.[36]

AFSOC had an opportunity to change how it trained Air Commandos with the creation of a new capability, the U-28, in 2005. The need to generate this capability in a short amount of time led the four initial cadre to fall back on what they knew about training programs—to use experienced personnel as had the MC-130H program. This unwritten requirement to use experienced personnel, or cultural legacy, was standard for AFSOC training programs. In fact, creativity within AFSOC may have been stifled due to the overreliance on experience. The operational requirements for more ISR and other

[35] Murdock, Special Operations Forces Aviation, 17.
[36] Murdock, Special Operations Forces Aviation, 3.

capabilities developed in the U-28 signaled to AFSOC leaders the need to diversify its fleet of aircraft.

Once OEF began, the requirement for experienced personnel as the foundation for training shrank as a priority for AFSOC leadership. Their priority shifted to reducing the number of rotations and time away from family to preserve the long-term health of the Air Commando force. There were other personnel pressures within AFSOC as well. Some the most experienced senior aircrew retired as a result of the OPTEMPO to support OEF. These twin personnel pressures meant AFSOC leaders needed to train inexperienced personnel to offset losses of experienced ones.

Historically AFSOC had relied on experienced personnel as the foundation upon which to train and develop Air Commandos. There was no perceived need to change the training program for AFSOC as the existing system was working and there were enough experienced personnel entering AFSOC from other MAJCOMs in peacetime. This constant influx of experienced Airmen became an assumption underpinning AFSOC training.

The requirements of wartime and constant deployments increasingly challenged this assumption. Once the OPTEMPO of OEF and OIF increased, relying on experience was infeasible. The influx of inexperienced Airmen meant a greater focus on baseline skills which threatened aspects of Air Commando culture. Recently AFSOC leadership, specifically Lt Gen Heithold, identified a program designed to bring back the Air Commando culture. This program is called the Air Commando Development Program, and it is described in detail in the next chapter.

Chapter 4

AFSOC's Focus Shifts

> *Air Commandos are quiet professionals personally committed to their craft. They are Airmen in the air component of US Special Operations Command, capable and ready to conduct special operations anytime, anyplace… [t]heir rigorous training helps them manage uncertainty and mitigate risk. They train smarter and harder than others, to know when and where to push the limits…and as their heritage demands, they remain culturally bound to get the mission done, or find a way where none exists.*
>
> --371 SOCTS Fieldskills Expansion Brief

A report on opportunities for simulation in training reported that Lt. Gen. Heithold, the AFSOC Commander, highlighted the need to refocus and improve training. Improving training would become one of the Command's top priorities.[1] After 15 years of constant deployments, a general increase in roles and responsibilities of aircrew members, an influx of inexperienced personnel, and mission changes meant appropriate training took a backseat to operational preparation and deployment. AFSOC needed to get back to its roots of not just training competent aircrew, but also training Air Commandos.

AFSOC leadership took an active role in creating a new training program to address the issues that arose from the pace of wartime deployments and the stresses it imposed on the existing one. AFSOC Airmen were being trained in their specific platforms but had little

[1] Opportunities for the Employment of Simulation in U.S. Air Force Training Environments: A Workshop Report. Air Force Studies Board. National Research Council of the National Academies. The National Academies Press. Washington D.C. www.nap.edu. Colonel Breeze was the Chief, Operations Training from 2013-2014. Lt Gen Bradley Heithold became the AFSOC Commander in July 2014.

collective sense of what it meant to be an Air Commando. The new initiative program, called the Air Commando Development Program (ACDP), aimed at training qualified aircrew members while instilling them with the Air Commando ethos. The program uses a building block approach to train new Air Commandos. Skills learned in the first phase aid crewmembers throughout their entire career as an Air Commando. The idea underpinning the ACDP emphasized becoming an Air Commando first, then learning what it is like to go to combat, and finally to understanding advanced tactics and how special mission air contributes to the joint special operations force. The three phases within the ACDP are Air Commando indoctrination, combat mission readiness, and advanced tactical training. Completion of this three-phase program is designed to produce a balanced, experienced, and creative leader—an Air Commando. This chapter outlines the various phases of ACDP that are assessed in the next chapter.

AIR COMMANDO DEVELOPMENT PROGRAM: AIR COMMANDO INDOCTRINATION

The first phase of the ACDP is two-to-three weeks long and is called the Air Commando Indoctrination (ACI) course. This course gives incoming Air Commandos a comprehensive look into a future career in AFSOC. The 371st Special Operations Continuation Training Squadron (SOCTS) runs the ACI courseware and ensures unit compliance with all training deliverables. The ACI course requires all new pipeline personnel to attend first a common set of core courses lasting approximately two-to-three weeks at Hurlburt Field, Florida. The first course in the ACI phase is called the Air Commando Field Skills Course (ACFC). During ACFC, all incoming Air Commando candidates learn advanced tactical weapons, tactical combat casualty care, tactical force protection, active shooter/insider threat/cockpit denial, and antiterrorism dynamic and

defensive driving.[2] In addition, all candidates receive the introduction to special operations course (ISOC) as well as an intercultural competencies basic course (ICBC).

The ISOC gives trainees the historical background information on the development, organization, and activities of US Special Operations Command (USSOCOM) and its components. Personnel who fill special operations positions that require joint operations knowledge must complete this course, even if they are not from SOF, such as staff officers heading to USSOCOM. ISOC emphasizes Air Force Special Operations Forces (AFSOF) and joint operations. The course utilizes personal accounts to illustrate learning objectives, in addition to demonstrating the skills required during actual operational missions. The course ends with a range demonstration and static display to familiarize trainees with the various AFSOC ground and air capabilities.[3]

The ICBC is another core course that all prospective Air Commandos are required to complete. This course lasts eight hours and provides the students with general knowledge to be able to operate in a different cultural setting when Air Commandos are deployed overseas. An Air Commando requires skills to "quickly and accurately comprehend, then appropriately and efficiently act, in a culturally complex environment."[4] This introductory course gives Air Commando

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[2] Air Force Special Operations Air Warfare Center. *Syllabus of Instruction Air Commando Field Skills Course.* 14 July 2015.

[3] http://www.afsoc.af.mil/Units/AirForceSpecialOperationsAirWarfareCenter/USAFSOS/ISOC.aspx. (accessed 27 Feb 16)

[4] http://www.afsoc.af.mil/Units/AirForceSpecialOperationsAirWarfareCenter/USAFSOS/ICBC.aspx. (accessed 27 Feb 16)

candidates a basic understanding "into the cultural values, beliefs, behaviors, and norms of other countries or regions."[5]

Safety and protection are also important aspects when deployed overseas. ACFC requires new Air Commandos to attend the antiterrorism dynamic and defensive driving course. The course teaches Air Commandos force protection skills along with safety and security using advanced vehicle operations. Objectives of the course include demonstrations of tactical ramming, driving under fire, and braking procedures. Scenarios in which these skills are tested include hostile situations in a non-permissive environment from which the Air Commando must escape.

Along with force protection on the ground, new Air Commandos must attend the tactical force protection course. This course teaches protective measures Air Commandos can use to minimize threats while conducting their special operations missions. SOF conduct the majority of their missions in isolated areas and this course provides the Air Commando with the knowledge necessary to protect themselves. This course differs from the tactical force protection course for SOF ground units in one major way. The emphasis in this course is the training environment, which is force protection within aircraft. This course includes active shooter, insider threat, and cockpit denial scenarios.

Part of force protection is also understanding and being comfortable using tactical weapons. The advanced tactical weapons course enables AFSOF Airmen to become proficient using their assigned weapons, the M9 or M11 pistol. Trainers teach the trainees range safety, marksmanship skills, drills, among other skills during this course. To

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5 http://www.afsoc.af.mil/Units/AirForceSpecialOperationsAirWarfareCenter/USAFSOS/ICBC.aspx. (accessed 27 Feb 16)

assess the trainee's proficiency, each Air Commando goes through several high stress practical shooting scenarios at the end of the course.

After learning how to protect himself or herself, the Air Commando must have the skills to tend to battlefield injuries under austere conditions. The tactical combat casualty care course is similar to self-aid buddy care; however, the students are taken through more in-depth scenarios built around the battlefield environment. Each student will accomplish simulated scenarios in the Tactical Operations Medical Simulation (TOMS) lab.

The goal of the Air Commando Indoctrination phase is to teach Air Commandos the history of special operations. In addition, each new member obtains a baseline knowledge, or common framework, to begin to understand the importance of the Air Commando ethos. The ACI phase is not a selection process that is a hallmark of most ground SOF operators.[6] Instead, the purpose of ACI is to provide basic skills and educate Air Commando trainees on the culture of USSOCOM and its components.[7]

Once an Air Commando completes the ACI course, he or she will attend their specific aircraft, also known as mission design series (MDS), training. Currently the flight-training units (FTUs) conduct basic level MDS training. FTUs provide new Air Commandos general knowledge on

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[6] For details, see Robert Spulak, *A Theory of Special Operations: The Origins, Qualities, and Use of SOF* (Hurlburt Field, FL: Joint Special Operations University, October 2007).

[7] Lieutenant General Bradley Heithold, "Air Force Special Operations Command Training and Technology Transformation." The Air Force Association. 2015 Air and Space Conference. September 15, 2015. http://www.afa.org/airspaceconf/conference/audiorecordings. [Accessed 11 Apr 16] Lt. Gen. Heithold has stated several times that the personnel coming into AFSOC have already gone through a selection process. Trainees already passed through, or were selected, to attend Undergraduate Flight Training. An addition selection is the initial qualification flight training. Therefore, according to the Commander, AFSOC personnel go through a selection process just like other joint SOF operators.

their MDS. This platform specific knowledge establishes a solid foundation in which the operational units can build. The Air Commando Development Program adds five new courses to FTU training. These courses include tactical data links (TDL) concepts, Joint Fire (JFIRE), brevity words, defensive systems or countermeasures concepts, and briefing and debriefing techniques and procedures.[8] The knowledge Air Commandos gain at their FTU is a stepping-stone to the next phase of the Air Commando Development Program.

COMBAT MISSION READY PHASE

The second phase of the Air Commando Development Program is the combat mission ready (CMR) phase. The CMR phase begins once the Air Commando arrives at his or her designated operational squadron with basic mission qualification. The purpose of this phase is to bridge the gap between FTU training and the Air Commando's first AFSOC deployment.

Once the Air Commando completes initial qualification training, she will arrive at her operational unit fully mission capable.[9] The CMR phase does not reteach or review material covered at the FTU. Rather, the lessons in the workbook build on the knowledge the Air Commando gained during initial qualification training. Additionally, each new Air Commando receives common academics as well as specific unit and mission training in the respective platform.

[8] The tactical data links course explains different ways to use secure communications between platforms. The JFIRE course describes how to receive and use fire support, and brevity terms are words designed to convey complex information in one word or short statement.

[9] Every aircrew member who completes FTU training will arrive at their operational unit fully qualified, meaning if necessary, these new aircrew members could deploy in support of any conflict if necessary. The intent of the Air Commando Development initiative is to give these new aircrew members time to develop.

Once the Air Commando arrives at his operational squadron, they enter the squadron's "green flight."[10] In this initial squadron entry flight they receive their CMR workbook exclusive to their specific aircrew position.[11] Each workbook is broken down into eight sections with the first three common to every MDS. The first section provides detailed information on the special operations components from Naval Special Warfare, Marine Special Operations Command, the United States Army Ranger Regiments, the United States Army Special Forces, and the United States Army Special Operations Aviation Regiment. The section builds upon what the Air Commando learned in ISOC and familiarizes them with their role in supporting other SOF. The command and organizational structure is also discussed. It is important for an Air Commando to understand these organizations in order to provide effective support during conflicts.

The Air Commando continues to the next section of the CMR phase, which discusses weapons employment and the tactics, techniques, and procedures unique to special operations. The focus of this section is not solely on missions conducted by the Air Commando's particular MDS, but on all variations of special operations. Table 4 lists the topics covered in this section.

[10] The term "green flight" is a section of the squadron specifically designed for new aircrew coming into the squadron. The idea is to give aircrew members a specific amount of time, usually about six months, to focus on learning the airplane, the unit, and the command. Each squadron may run their specific "green flight" differently, but the idea is the same.

[11] Heithold, 2015 Air and Space Conference. September 15, 2015. [Accessed 11 Apr 16]

Table 4: Weapons Employment and Tactics, Techniques, and Procedures

Joint Close Air Support
Defensive Systems
Tactical Data Links
Air Force Special Operations Command Capabilities
Concept of Fires/Standard Operating Procedures
Focal Point Specifics
Command and Control Structure for Deployed Operations

Source: MC-130H Electronic Warfare Officer Combat Mission Ready Workbook. 23 September 2015 Pg. 8

The third section of CMR, mission and unit indoctrination, focuses on MDS-specific information. Beginning with a historical discussion of the unit, the section's goal is to give the Air Commando some insight into the organizational culture. For the MC-130H, the historic discussion begins with actions that occurred during World War II, namely Operation THURSDAY and the birth of Project 9. These historical discussions take the Air Commando through the Vietnam War, Operation DESERT STORM up to current operations, discussing the culture of special operations during each time period. The goal of the historical section is to give the new Air Commando some insight into their unit's past and to help them identify and understand the culture of special operations.

Mission and unit indoctrination has an important subsection. In this subsection, Air Commandos read and discuss any significant safety mishaps or incidents. For the MC-130H, for example, there are four mishaps listed in the CMR workbook, two that happened during wartime

operations, and two during routine training missions.[12] This subsection concludes with local and unit-specific standard operating instructions.

Beginning with section four, each CMR workbook transitions from the common lessons to specific MDS lessons. Topics not discussed at FTU, such as operational communication systems, are discussed in this section. Furthermore, this section builds on the general knowledge taught during the FTU initial qualification course. Each student examines in detail general aircraft information relating to his or her specific aircrew position. Some of the discussion points and topics may overlap with lessons taught during FTU training. However, the CMR workbook requires the Air Commando to engage in discussion in much greater detail.

The fifth section of the CMR workbook, the employment section, assesses the aircraft systems as well as employment of the aircraft in the squadron in depth. In this section, the instructor discusses the specifics of deployment with the student and prepares each aircrew member for their first deployment in the MDS. The student must understand expectations for and of them within their squadron. Aircrew members learn most of the information in this section on their first deployment. Teaching core deployment information before arriving in the theater is critical for a successful deployment.[13]

Section six of the CMR workbook allows the students to improve and build their Air Commando knowledge. The students have an opportunity to teach, to attend a course at the United States Air Force Special Operations School (USAFSOS), and to observe other units and

[12] It is important to understand how and why mishaps occur. It is also important to understand that a safety incident can occur at any time, whether in war or peacetime operations.

[13] When each aircrew member has the same baseline understanding of the roles and responsibilities of the aircrew, it allows the aircrew to focus on the mission rather than instructing new squadron members.

platforms conducting AFSOC missions.[14] This section of the workbook provides the Air Commando with the opportunity to look outside their particular airframe or unit and see other aspects of special operations aviation. This type of broadening of a student's knowledge base helps the student become a well-rounded Air Commando.

The final two sections of the CMR, training sorties and the capstone exercise, bring together all the knowledge and experience each student has learned thus far. There are three training sorties in section seven and the first is a flight with an instructor. Flying with an instructor allows the student to learn from an experienced aircrew member on a local training flight. These flights are one of the most beneficial for young, inexperienced aircrew members because they can ask questions of the instructor in an informal setting.[15]

The next sortie in this section is a training flight in support of an outside user. An example of a training flight in this section is a static line airdrop mission to support SOF ground forces such as members of the 7th Special Forces Group. This flight exposes the Air Commando to actions beyond AFSOC-specific missions prior to deployment. In addition, such flights provide practical experience in supporting other SOF components with whom they may work when deployed and they discussed conceptually in sections one and two of CMR.

The third and last sortie in CMR requires the student either to participate in an exercise or to take part in a virtual Full Mission Profile (vFMP). This sortie brings together all the lessons of CMR and prepares

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[14] United States Air Force Special Operations School. 29 Jan 2016 http://www.afsoc.af.mil/Units/AirForceSpecialOperationsAirWarfareCenter/USAFSOS.aspx

[15] Flights with instructors are not always possible. Most positions on AFSOC aircraft are single person positions, meaning they are the only person qualified in that crew position on the aircraft. It is beneficial for aircrew members, especially new and inexperienced members, to have the opportunity to learn from an experienced instructor.

the student for the final capstone exercise. The capstone exercise is a vFMP or verification planning exercise completed using either the simulator or an actual aircraft flight. This exercise has a full scenario including an intelligence brief and a brief to the Squadron Commander or Director of Operations for approval. The entire exercise takes three days to complete and concludes with the student debriefing the Squadron Commander and or the Director of Operations. Successful completion of this exercise constitutes graduation from the CMR phase of the Air Commando Development Program. If the Air Commando does not complete this exercise successfully, they cannot deploy with their squadron.

ADVANCED TACTICAL TRAINING PHASE

The third and final phase in the Air Commando Development Program is the advanced tactical training (ATT) phase. Squadron leadership can consider a new Air Commando for upgrade to instructor, aircraft commander, and weapons school after completion of this phase. Each aircrew member seeking to upgrade to instructor or aircraft commander must have completed ATT and have obtained the appropriate number of flight hours for their MDS and aircrew position.

Once the CMR phase is complete, aircrew members are ready to deploy and begin the ATT phase. ATT begins when the Air Commando is scheduled to go on their first deployment. This phase will continue for the next 12-18 months giving the aircrew ample time to gain experience in aircraft employment, to accumulate two-to-three more deployments, and to mature as an aircrew member and Air Commando.

The goal of ATT is for aircrew members to focus on the advanced material specific to their MDS and aircrew position. The intent behind ATT is to build an expert aviator in his respective MDS with general knowledge of the other specialties within the SOF community. One focus area is the advanced knowledge academics. This section builds on

knowledge each aircrew member has of the SOF community from initial qualification through the CMR phase and deployments and deepens her understanding.

Not all of the ATT relates to flying. Non-flying training and education include other possibilities, such as attending more courses at USAFSOS, building scenarios, planning missions, and being part of a mission-planning cell for an exercise. These opportunities give aircrew members a chance to develop skills outside of flying and prepare them for leadership positions later in their careers.

The final two sections of the ATT include advanced flight techniques and a capstone exercise event. The high-pressure capstone event occurs over three days and the Air Commando is the mission commander for the exercise.[16] The first day begins with receipt of the mission, followed by mission planning, and finally a back brief to the squadron leadership for approval. Once approved, the exercise continues on to the second day, which is the day of the flight. On the third day, the student debriefs the squadron leadership. After debriefing, the leadership passes the student or recommends they redo the exercise. When successful, the Air Commando completes the ATT phase and the ACDP and is now eligible to be upgraded to either aircraft commander or instructor.

The entire Air Commando Development Program is a self-paced training program designed to leverage technological advancements to train and develop incoming "Airmen into Air Commandos."[17] The entire program should take 24-36 months to complete, but completion ultimately depends on the initiative and motivation of the individual Air Commando.

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[16] Heithold, 2015 Air and Space Conference. September 15, 2015. [Accessed 11 Apr 16]

[17] Air Force Special Operations Command. "Air Commando Development" presentation. 25 Jan. 2016.

CONCLUSION

Prior to September 11, 2001, AFSOC force structure was small and consisted mainly of specialized variants of the C-130.[18] Training in AFSOC relied on having a high ratio of experienced versus inexperienced aircrew members. After September 11, AFSOC's operating environment changed. AFSOC found itself involved in two prolonged conflicts with an increasingly shrinking experience pool. To make up for the lack of experience, AFSOC shifted its training focus to more basic flight fundamentals and fewer aircrew could focus on advanced tactics.

The constant deployments and prolonged war created a "bathtub effect" in terms of the experience of its personnel. More inexperienced personnel entered AFSOC. As these pipeline aircrews entered, AFSOC needed to shift their training focus. Unfortunately, the high operations tempo (OPTEMPO) associated with wartime deployments would delay AFSOC's ability refocus training and the aircrew found themselves training to meet current operational realities.

The Air Commando Development Program is AFSOC's current answer to shift the training focus from functional, platform-specific training to a broader one that instills in trainees Air Commando culture. This program builds a well-rounded Air Commando ready to conduct missions in any threat environment. It is AFSOC's definition of the "right" program designed to develop the "right" person no matter what their level of experience when they enter AFSOC. The next chapter evaluates ACDP using the instructional systems design model. It describes the three aspects necessary for an effective training program and assesses the effectiveness and identifies potential limitations of the ACDP.

[18] Murdock, Special Operations Forces Aviation, 17.

Chapter 5

The Training Triad

> *Victory smiles upon those who anticipate the changes in the character of war, not upon those who wait to adapt themselves until after those changes occur.*
>
> --Giulio Douhet

Operation THURSDAY marked the beginning of a new era for American Airmen. This operation launched a new capability within the Army Air Forces and created the Air Commandos. John Alison and Phil Cochran generated an elite force from concept to realization in minimal time within specified parameters. However, they did not accomplish this feat alone. These two officers gathered the right people and acquired the right tools to perform their mission. They also established a robust training program to facilitate a bold solution to a complicated problem. Their vision and dedication to promoting a new aerial capability sparked the Air Commando ethos.

Training is the modern foundation for any special operations team, platform, organization, or ethos including Air Commandos. Training programs help develop skills and foster continuous learning behavior.[1] This chapter surveys an instructional systems design (ISD) model and uses it to evaluate the Air Commando Development Program (ACDP). Additionally, this chapter identifies what the author calls the training triad of procedures, people, and tools. This training triad creates an effective training program when all three are in balance. The final section of this chapter identifies some limitations of ACDP. The list here

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[1] Eduardo Salas, Scott I. Tannenbaum, Kurt Kraiger, and Kimberly A. Smith-Jentsch. "The Science of Training and Development in Organizations: What Matters in Practice." *Association Science in the Public Interest* 13, no. 2 (2012): 74–101. Pg. 74

is not all-inclusive and only identifies a few critical limitations as they pertain to the training triad.

The first section discusses procedures and their importance to the training triad. Procedures bound the learning environment, provide a design framework for training programs, and are the linchpin of any productive learning environment. The second pillar of the triad ensures the organization is comprised of the right individuals. For Alison and Cochran, finding the right people for the first Air Commandos meant identifying those who exhibited certain characteristics. These handpicked officers not only had experience in their aircraft, but they also brought out-of-the-box thinking, motivation, and desire. Chosen for their diverse backgrounds, many of these officers brought a broad range of potential solutions to accomplish the mission.[2]

Finally, the third pillar of the training triad is use of the appropriate tools. Aircraft, simulators, distributed mission operations (DMO), and exercises are just a few of the tools that generate an optimal learning environment. These tools, combined with the appropriate procedures and right people, are critical to an effective training program and contribute to the training triad.

PROCEDURES

Training programs work when properly organized, developed, and used appropriately. Effective training programs and other activities give organizations the ability "to adapt, compete, excel, innovate, produce, be safe, improve service, and reach goals."[3] When an organization's leaders invest sufficiently in well-designed and applicable training procedures, its members benefit greatly.[4] Therefore, the way any training program is

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[2] James Surowiecki. *The Wisdom of Crowds*. New York: Anchor Books, 2005. Pg. xix.
[3] Salas et. al, Science of Training and Development in Organizations, 74.
[4] Salas et. al, Science of Training and Development in Organizations, 74.

"designed, delivered, and implemented can significantly influence its effectiveness."[5]

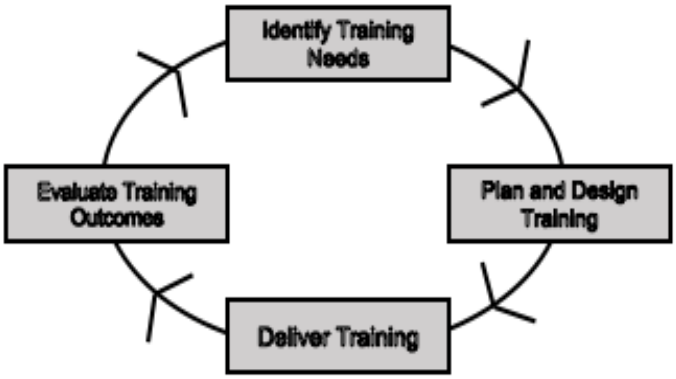
The design of the training program is critical as it can determine the program's effectiveness and influence the desired outcome. The primary goal of a training program is to ensure the trainee is more efficient in the organization after training than they were before.[6] A way to ensure this occurs is by using a training model to create a robust training program. Training models provide structure and ensure evaluation of the training program.[7] The Systematic Model is one of the more common models educators use and is based on ISD.[8] The Systematic Model includes four steps:

1. Identify training needs;
2. Plan and design training;
3. Deliver training; and
4. Evaluate training outcomes.

All four steps link together, and the process becomes iterative in nature (see Figure 1).

[5] Salas et. al, Science of Training and Development in Organizations, 74.
[6] Robert W. Pike. *Creative Training Techniques Handbook: Tips, Tactics, and How-To's for Delivering Effective Training*. Minneapolis, MN: Lakewood Books, 1992. Pg. 1.
[7] Martyn Sloman. *A Handbook for Training Strategy*. Aldershot Hampshire England: Gower Publishing Limited, 1994. Pg. 40.
[8] Sloman, *Training Strategy*, 22.

Figure 1: The Systematic Model



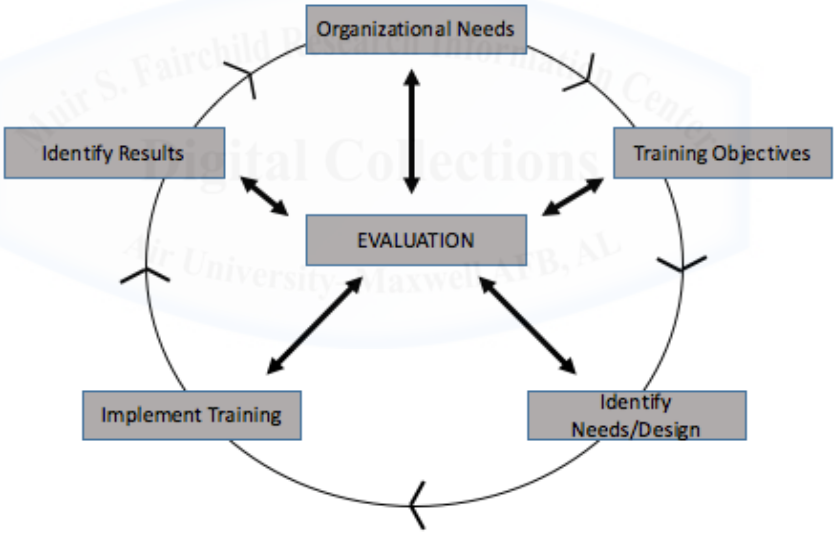
Source: Sloman, Martyn. 1994. *A Handbook for Training Strategy*. Aldershot Hampshire England: Gower Publishing Limited. Pg. 22.

The Systematic Model identifies the basic requirements for a training program. It is an explanatory model that establishes a baseline for general use. However, this model is not all-inclusive and not intended to implement or manage a training syllabus in AFSOC. A curriculum for training Air Commandos must be flexible enough to adapt to the creative ideas and innovation required to complete missions in a complex environment. The Systematic Model is a circular one that only evaluates the training outcome. A flexible program requires evaluation to occur throughout the program lifecycle.[9] Evaluation at each step of the program would give the Air Commando the flexibility to adapt quickly to complex environments.

[9] This program, as the figure depicts, is a one-way, circular loop. Only after the trainees receive the training is an assessment conducted. The evaluation occurs when the trainee is back with their units, and not with the organization who did the training. Using this model for training Air Commandos, this evaluation occurs after each class, but it is not implemented to adjust the program except in a two-year cycle. By this time, the proposed solution may be unsuitable for the mission set.

The Systematic Model is a necessary departure point that does not meet Air Commando needs. Air Commandos require a more inclusive training model. Such a model would allow Air Commandos to adjust the training program at the necessary step to ensure mission success. This new program modifies the Systematic Model with minor adjustments to ensure training flexibility. A graphical depiction of such a model is contained in Figure 2 and is called the Adjusted Systematic Model.[10] In this model, evaluation is the focal point of the training process and is embedded into each step. Evaluation of every step is critical to the program to ensure the training meets the organizational needs.

Figure 2: Adjusted Systematic Model



Source: Sloman, Martyn. 1994. *A Handbook for Training Strategy*. Aldershot Hampshire England: Gower Publishing Limited.

The first step of the Adjusted Systematic Model is identifying and defining the organizational needs. Usually, these are the initial requirements for developing the training program. When AFSOC

[10] Sloman, *Training Strategy*, 22-23. The author used the model of planned training as a basis for the adjusted systematic model identified in this thesis.

initiated the Air Commando Development Program, its organizational need was to produce a well-rounded Airman who was competent and experienced enough to discuss fluently all things related to the air component of special operations. The current AFSOC Commander decided to make all AFSOC aviators Air Commandos from the beginning of their careers. The thinking behind this and the rationale behind ACDP was to restore the meaning of an Air Commando to those joining the force.

The AFSOC Commander, Lt Gen Bradley Heithold, outlined the problem Air Commandos faced in comparison to their ground SOF peers. When a Geographic Combatant Commander (GCC) asks for a Navy SEAL, he knows what he is getting, "the most highly trained killer on the planet."[11] A SEAL is a SEAL, no matter what team they are from and regardless of their expertise. When the GCC asks for an Air Commando, currently they get a wide variety of individuals from AFSOC. For example, the GCC could get someone from the MC-130H community, the U-28 community, or other AFSOC "tribes" who identify and represent the experience of their platform community. They would not be well versed in the other's mission set. The difference in these two scenarios is all the SEALs have a universal identity where Air Commandos do not. The Air Commando Development Program is designed to create a well-rounded, innovative, competent special operation Airmen, no matter what platform they fly. The Commander's vision is that the Air Commando Development Program creates the AFSOC equivalent to a Navy SEAL, a universal special operations aviator.[12]

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[11] Lt Gen Bradley Heithold. "Air Force Special Operations Command Training and Technology Transformation." The Air Force Association. 2015 Air and Space Conference. September 15, 2015. http://www.afa.org/airspaceconf/conference/audiorecordings. [Accessed 11 Apr 16]

[12] Heithold, 2015 Air and Space Conference. September 15, 2015. [Accessed 11 Apr 16]

The next step in the Adjusted Systematic Model is the training objectives. Objectives should align with one of four categories: attitude, knowledge, skill, and job behavior.[13] One objective identified in the ACDP defines an Air Commando as someone who is "capable of reasoned, mature decisions in complex and ambiguous operational environments."[14] Successfully accomplishing this objective will ensure the Air Commando Development Program develops a universal Air Commando.

The third focus area determines the needs and design of the program in detail. Chapter Four describes in detail how the ACDP intends to meet the overall organizational needs as well as the training objectives. While evaluation of the regulatory requirements and the training objectives continues, it is critical to evaluate the design and integrate the feedback into the training model feedback loop.

The fourth step is implementing the training program. Balance in the training triad is critical to the success of the training program. Having and using the appropriate tools is vital to the success of the program. Knowing when it is best to conduct training in the aircraft, or simulators, using DMO, or participating in exercises, is a fundamental component to meeting the appropriate learning objective. The Air Commando Development Program leverages all four of these mechanisms. There may be certain mission sets that require flying the aircraft versus using the simulator. Constant review and evaluation of the program ensure the best mechanism, or right tool, is available and used at the appropriate time.

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[13] Donald L. Kirkpatrick, *A Practical Guide for Supervisory Training and Development*. Reading, Massachusetts: Addison-Wesley Publishing Company, 1983. Pg. 50-51. See Appendix A for further definition of the four types of objectives.

[14] Air Force Special Operations Command Instruction (AFSOCI) 36-2201 *Air Commando Aircrew Professional Development* DRAFT (accessed Feb 2016).

The fifth step identifies the results of the program. This step generates a list of outcomes produced by the program. For more than a year, the Air Commando Development Program was under development by AFSOC training personnel. Since the results may not be instantaneous, this step may take months or years to integrate fully.

The evaluation step is the most important process in the training model. Evaluation consists of assessment of the program, which gives those within the organization an idea of what part of the program works, and which parts need adjusting. Evaluation also ensures established training objectives meet the needs of the organization through the design of the program. It is important to distinguish between evaluation of the trainee and evaluation of the effectiveness of the training program.

There are several ways to evaluate a training program. This chapter examines two specific ways to do so that reflect AFSOC's unique requirements. The first way, called a program review process, gives the organization a few requirements to consider when determining whether the program was successful.[15] These requirements include the following:

1. The program must be well-designed;
2. The program must be understood and accepted;
3. Instructors must be properly trained to implement the program; and
4. Proper administration and controls must be established.[16]

The first requirement, a well-designed program, must reflect the needs and objectives set by the organization. One way to ensure this occurs is to ask continually how the training contributes to achieving

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[15] Salas et. al, Science of Training and Development in Organizations, 90.

[16] Kirkpatrick, A Practical Guide, 66. These four criteria are used to ensure on-the-job development is efficient for managers and supervisors. As described in the paper, the author is using the ideas and adjusting them for use in the military. Transferring these criteria is easy because aviation training is considered on-the-job training.

these objectives.[17] The individuals in charge of the program continually need to ask themselves "are we effectively meeting the objectives?"[18] In the ACDP, those in charge are the individuals in the various AFSOC training offices, ranging from the headquarters to the individual squadrons.

Evaluation of the first and second steps of the Adjusted Systematic Model feeds into the third step of identifying the needs and design of the program. Evaluating the needs of the organization ensures the team focuses their efforts appropriately. Once identified, the organizational needs drive the training objectives. As the evaluation of the training objectives continues, it will adjust the design of the program. Reviewing and modifying, in essence conducting an assessment, is critical when training to employ in a complex environment.

The second requirement stresses that users accept and understand the program.[19] The program will be ineffective if this requirement is not met. Without clear deliverables, trainers and trainees can interpret program requirements differently, which leads to teaching several different variants. Additionally, those who are part of the program must accept it for it to succeed. If the instructors and trainees of the program do not accept the program's objectives, the program will fail due to lack of support. With the Air Commando Development Program, acceptance and understanding from mid- and lower-level AFSOC Commanders is essential to success. These individuals will set the tone for those not only giving the training but also to those attending the training. If Commanders disapprove or are disdainful of the program, it will fail.

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[17] Pike, Creative Training Techniques Handbook, 140.
[18] Pike, Creative Training Techniques Handbook, 140.
[19] Kirkpatrick, A Practical Guide, 66

The third requirement in the program review process is the need for appropriately trained instructors.[20] The ACDP requires instructors who are not only capable of training new recruits in their aircrew specific functions, but who also instruct the unit and Command's historical events. As part of ACDP, AFSOC instructors are now required to teach incoming Air Commandos about the history of the Command, their units, their platform, and other history. Since the ACDP does not specify how instructors should teach history, the units should develop a standard operating procedure to ensure the instructors know and understand what information to relay to the new trainees. This standard operating procedure will ensure the unit instructors are receiving the same instruction on what to teach and that they are teaching the same information to all incoming trainees.

The fourth and final requirement is a "check and balance" system in the organization.[21] A check and balance system ensures completion of applicable documentation and meeting of the milestones at the appropriate time. A database displaying all levels of training and the length of time trainees take to complete will help identify all required milestones are met in an appropriate timeframe. The ACDP requires all training is entered into an already existing database called Patriot Excalibur (PEX). This database is accessible to instructors, students, and leadership.[22]

Meeting all four requirements of the program review process identifies to the organization's leadership whether or not the program is successful.[23] However, the program review process is only one form of evaluation that the leadership can use to determine a successful

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[20] Kirkpatrick, A Practical Guide, 66.
[21] Kirkpatrick, A Practical Guide, 66.
[22] Steve Eells, Hector Collazo, Pete McDonough, and George Hock. "Air Commando Development Program AFSOC/A3T Interview." Personal interview. 25 Jan. 2016.
[23] Kirkpatrick, A Practical Guide, 66.

program. Another method is the Kirkpatrick model.[24] The Kirkpatrick model, around since the early 1950s, has four levels of evaluation, which include answering the following questions:

1. Reaction – how well did training participants like the program?
2. Learning – what knowledge (principles, facts, and techniques) did participants gain from the program?
3. Behavior – what positive changes in participants' job behavior stemmed from the training program?
4. Results – what were the training program's organizational effects regarding reduced costs, improved quality of work, increased quantity of work and so forth?[25]

The first level, reaction, identifies how much the students engaged with and enjoyed the program. This level can provide important data when evaluating a program. If a student has a positive response and seems engaged, the program is succeeding. A positive reaction from a student tends to mean that the student is learning something.[26] Another reason to measure the participant's reaction is to ensure they are motivated to learn about the topic.[27] If the trainees are interested in the topics presented, they tend to put forth greater effort to learn.

The second level, learning, measures a change in learning that occurred. Measurement of knowledge, skills, and motivation is an indicator of the amount of learning that has occurred.[28] Although a

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[24] Donald Kirkpatrick. "Great ideas revisited." *Training and Development* 50, no. 1 (1996): 54-59. In 1952, Donald Kirkpatrick wrote a dissertation on evaluating a training program. His focus was on the participants' reactions and the amount of learning that was taking place, and how their behaviors changed after they returned to their jobs. The model was meant to be straightforward and practical, something that could be easily understood. The sole purpose is to offer a guide to training evaluation.

[25] Sloman, *Training Strategy*, 149.

[26] Kirkpatrick, *A Practical Guide*, 102.

[27] Kirkpatrick, Great ideas revisited, 56.

[28] Kirkpatrick, "Great ideas revisited," 56.

positive reaction usually means learning is occurring, it is no guarantee. One way to verify the level of students learning is by conducting a pre- and post-test assessment of the information.[29] Giving the students a test with both instructed and the non-instructed information is one way to gauge how much a person retained the information the organization's leadership wanted them to learn.[30] When a student shows they retained more of the instructed information, the program is working.

The third level of evaluation assesses the student's behavior once they finish the training. When a student finishes training, there is always some aspect of the training that the student had difficulty understanding. Evaluating the student's behavior once they return to work can identify the aspect of training with which they had trouble. It can also determine where the student excelled. ISD literature labels highlighting the positive and negative aspects of training as "transfer of training."[31] For an accurate sample of a person's behavior after training, the leadership should incrementally evaluate the trainee's behavior throughout the next six months to one year. Actions immediately following training typically produce the results favorable to identifying a successful program. When measuring behavior changes, one should follow a few guidelines. These include:

1. A systematic appraisal of on-the-job performance both before and after;
2. An appraisal of performance made by:
    a. The individual;

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[29] Kirkpatrick, *A Practical Guide*, 113.

[30] Eduardo Salas, Laura M. Milhan, and Clint A. Bowers. 2003. "Training Evaluation in the Military: Misconceptions, Opportunities, and Challenges." *Military Psychology* 15 (1): 3–16. Pg. 6. The example given in the article states that a fighter pilot trained in High-Speed Anti-Radiation Missile (HARM) procedures may be evaluated on Standoff Land Attack Missile (SLAM) procedures as well. Training would be considered effective when the pilot performs better on the HARM systems.

[31] Kirkpatrick, "Great ideas revisited," 56.

b. The individual's supervisor;
c. Subordinates of the individual; and
d. Peers of the individual

3. Make the assessment three or more months after the training; and
4. Use a control group as a comparison if available.[32]

The last level of evaluation is evaluating the results. Did the training accomplish what was intended? There are several different ways to evaluate the results of the training. One way is to compare and contrast between those who have had the training and those who have not. Another way is to use a control group. No matter what way is chosen to evaluate the results, it is important that the evaluation takes place in order to ensure the training program is effective and successful for the trainees.

There are several reasons to accomplish an evaluation of a program. Determining the validity of the program, identifying strengths and weak areas among the workforce, and assessing whether or not the program should continue are three reasons for evaluating a training program.[33] Evaluation of the program rather than the trainees identifies whether the program is meeting the intended objectives or if the objectives require modifications.

PEOPLE

The second pillar of the training triad consists of the people. People, as it relates to the training triad, are comprised of the trainees, operators, developers, instructors, supervisors, and leadership within the organization. The attributes they bring to the learning environment play

[32] Kirkpatrick, *A Practical Guide,* 116.
[33] Kirkpatrick, "Great ideas revisited," 56.

an important role in the effectiveness of the training program.[34] Possessing these attributes is more important now given the decreased experience level of aircrew coming into AFSOC discussed in Chapter 3.[35] The ability to rely on these more experienced aircrew members is no longer an option. Building the experience levels and the desired attributes of these individuals within AFSOC is more important now than before.

The first Air Commandos, Cochran and Alison, handpicked the men used to execute Operation THURSDAY. These men were chosen for several reasons, but most importantly for the qualities they possessed. Their experience and maturity, along with their motivation, drive, and commitment to excellence, set the tone for the unit. Cochran and Alison knew the importance of choosing men with these characteristics because the success of the mission relied on these men.

The qualities that promoted success in Operation THURSDAY included self-efficacy, motivation, and commitment. While not an all-encompassing list of qualities, these three are necessary traits that successful individuals, supervisors, and leaders must possess to create a successful learning environment.

The first of these traits, self-efficacy, occurs when people believe in themselves and believe they could succeed in a particular situation. Self-efficacy is an important quality as it gives people the confidence they need to accomplish the task. This trait is the bedrock for the others because it drives how people look and attack obstacles that can occur when planning and executing complex missions. It can also affect how

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[34] Salas et. al, *Science of Training and Development in Organizations,* 84.

[35] The author received an e-mail from an anonymous source relaying how the experience level of incoming personnel has decreased over the last ten years. The specific information regarding this topic is for official use only and is not listed in this thesis. The fact that incoming personnel are less experienced today than what they were a decade ago highlights the difference from 1990 until now.

an individual participates in the learning environment. Effective training programs should promote this capability to generate a successful learning environment.[36] When individuals believe in themselves, their performance improves.[37]

People who exhibit high levels of self-efficacy are also more motivated than others. Research suggests individuals who begin training with high levels of motivation will outperform those individuals who start training with a negative attitude.[38] Motivated individuals have a desire to learn and they usually have a positive attitude towards their training. These individuals will positively affect a program whereas those with a negative outlook will consequently negatively affect the program.

Motivation and attitudes can have a positive or negative impact can also affect the individual's retention of the information. If the learning environment is more negative in nature, individuals are less likely to want to learn. When the learning environment is positive, it is easier for individuals to retain the information taught and easier to relate the new information to real-world situations. An individual's desire and motivation to increase their knowledge and to perform better is a reflection of the learning atmosphere.

The goal of any training program is to take the information learned in training and to apply it in the real world. When individuals are motivated, they are more likely to transfer the information gained from training.[39] Additionally, when individuals believe and see that what they

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[36]Salas et. al, *Science of Training and Development in Organizations*, 84.
[37] Barry J. Zimmerman. "Self-Efficacy: An Essential Motive to Learn" *Contemporary Educational Psychology.* Vol 25, 2000. 82-91. Pg. 83. For a more complete understanding of the term self-efficacy, see authors Albert Bandura, B.J. Zimmerman, and D.H. Schunk.
[38] Scott I. Tannenbaum, Janis A. Cannon-Bowers, Eduardo Salas, and John E. Mathieu. "Meeting Trainees' Expectations: The Influence of Training Fulfillment on the Development of Commitment, Self-Efficacy, and Motivation." *Journal of Applied Psychology*. Vol 76. No. 6, 1991. 759-769. Pg. 760.
[39] Tannenbaum, et. al, Factors That Influence, 45.

are learning helps them outside the training environment, they remain motivated. Individuals tend to apply more effort in the learning environment when they can see and understand how their increased knowledge is used in their daily duties.[40]

While self-efficacy drives motivation, the latter drives commitment. When individuals have a desire to learn, they are more likely to be committed to the program and organization. The commitment level that the person shows affects the importance they apply to the program. This level will have an impact on the results the program produces.

ISD experts define an individual's commitment to the organization as "the relative strength of an individual's identification with and involvement in a particular organization."[41] Three factors influence an individual's commitment level:

1. A strong belief in and acceptance of the organization's goals and values;
2. A willingness to exert considerable effort on behalf of the organization; and
3. A strong desire to maintain membership in the organization.[42]

It is essential to a training program to have the members of the organization believe in themselves and the training. If they believe in both, they are more likely to be motivated to do well and want to learn. If their desire to learn remains high, they will continue to be committed to the organization and the organization will have a successful training program.

Possessing these three characteristics, self-efficacy, motivation, and commitment, provide an organization with quality but not an abundance of people. In other words, such a training program stresses

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[40] Salas et. al, Science of Training and Development in Organizations, 79.
[41] Tannenbaum, et. al, Factors That Influence, 759.
[42] Tannenbaum, et. al, Factors That Influence, 759.

quality over quantity. These characteristics, evident in the original Air Commandos, define the culture in special operations aviation. One author on special operations forces suggests the quality of the people define the organization.[43] Having the right person for the job is not just a reflection of their selection but also how they are trained. As former USSOCOM Commander, General Bryan D. Brown (ret), stated, "Remembering that people are the key to success, I chose to put money into the facilities and personnel at our schoolhouses to allow SOF to grow the 'right' people, not to simply get bigger."[44]

TOOLS

The third pillar of the training triad is comprised of the tools used in the process. When appropriately used, the simulator is one of the most beneficial tools used by aviation Air Commandos. Simulators have been a part of military training for many years. In fact, simulators have been a part of training military members since before World War I.[45] The first flight simulator called the "pilot-maker, can be traced back to 1929" and was invented by Edwin Link.[46] Even though initially conceived as an amusement park ride, Link saw the importance of flight simulation well before most professional aviators of his time. Despite the fact the flight schools did not acknowledge his first simulators he continued to improve the capabilities it offered. By 1934, the Army Aviation Corps saw the

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[43] Spulak, Robert G. *A Theory of Special Operations: The Origin, Qualities, and Use of SOF* (Hurlburt Field, FL: JSOU Press, 2007), Pg. 13.
[44] John D. Gresham. "General Bryan D. Brown Interview" (Defense Media Network, October 15, 2009), http://www.defensemedianetwork.com/stories/interview-gen-bryan-d-brown-usa-ret/
[45] "A Primer on Modeling and Simulation: The World of M&S" http://www.trainingsystems.org. [accessed 13 Apr 16]
[46] National Aviation Hall of Fame. http://www.nationalaviation.org/link-edwin/. [accessed 13 Apr 16]

benefits of the simulator and purchased six.[47] Aviation simulation in the military was born as a result.

Throughout the years, simulation technology has advanced tremendously. Simulators have become a part of every AFSOC training syllabus, from initial qualification to continuation training, and especially refresher training. Currently, many training curricula incorporate simulator training as a requirement to complete training, and for the special operations community, "modeling and simulation (M&S) remains a key enabler."[48] Some advantages to using simulators in training include:

1 Ability to practice and test dangerous scenarios
2 Simulators provide a realistic combat environment
3 Real-world environmental issues do not restrict simulators
4 Ability to control the learning environment[49]

In the early 1990s, AFSOC created a networked system called Special Operations Force Network (SOFNET) that showed great potential to advance training. This system "created a true, shared mission rehearsal (MR) and training capability since multiple aircraft (crews) [could] plan, prepare, and execute a joint mission."[50] The system would train to standards closely resembling those aircrew members would be encountering upon course completion.

Simulators give aircrew members a place to test hypothetical situations or scenarios they generate based on real-world situations.

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[47] http://www.nationalaviation.org/link-edwin/. [accessed 13 Apr 16]
[48] Marty Kauchak, "SOF: Leveraging Training Technology." *MS&T Magazine*. 3/4 (2015): 16-19. Pg. 16.
[49] Lieutenant Colonel Michael J. Kingsley, Transformation *Dilemma: Air Force Special Operations Command and the Role in the Future of the Air Force and Special Operations*. Air University Press Maxwell AFB, AL. April 2003. Pg. 27.
[50] Steven J. Tourville, V. Alan Spiker, Robert T. Nullmeyer, *Analysis of the Special Operations Forces Network Training for Joint Mission Operations Simulator Training*. Air Force Research Laboratory Human Effectiveness Directorate Warfighter Training Research Division. October 1998. Pg. 1.

Aircrew members can identify potential results of a given situation using the simulator. Understanding the possible outcomes of potential actions allows leaders to make better-informed decisions rather than uninformed ones.

Simulators also provide aircrew members with a more realistic combat environment through "integration of electronic warfare systems, countermeasure, improved visual systems, and correlated sensors [which enabled the aircrew to] perform real-world joint operation missions in a simulated environment."[51] According to one author: "The training device simulation elements use latest technologies to provide as close to real-world training as possible to support advanced, realistic mission rehearsal type training to prepare those who will go into harm's way."[52] For example, in a simulator, the enemy's air defense systems can fire on the aircraft. The aircrew can then practice their defensive maneuvers against the threat without fear of harm. It is also a way for the aircrew to trust and believe in the tactics they have been taught.

Along the same lines, the aircrew can maneuver the aircraft following the appropriate tactics. In the simulator, the aircraft is in no danger of colliding with another aircraft or violating airspace. Several training areas in the United States are saturated with airplanes. In the simulator, the aircraft have all the space required to get the mission done. Therefore, the aircrew can conduct the missions appropriately without any environmental limitations.

Finally, one of the biggest benefits of using the simulator is the ability to control the learning environment. In the simulator, the instructor or evaluator can stop the scenario, reposition the aircraft to a specific location, have the aircrew perform a particular action again, and

[51] Tourville, et. al. SOF Network Training, 2.
[52] Kauchak, SOF: Leveraging Training Technology, 17.

a variety of other things. It allows the aircrew to be in control of their learning.

While simulation is useful for certain aspects of training, it is not a comprehensive solution. Another tool that aids in making a successful training environment is the capability of distributed mission operations (DMO). DMO "provide warfighters routine in-garrison access to multiple, simultaneous, and large/small training or mission rehearsal events within a joint force environment while avoiding the traditional expense and disruption of having to assemble assigned units and opposing forces for training at a common and observable physical location."[53] This objective exemplifies what the AFSOC commander has envisioned for the future of training. During a speech at the 2015 Air and Space Conference, he stated AFSOC should, "buy the high-end simulators" because he envisions conducting the majority of training in simulators to use DMO.[54] This tool allows aircrew to plan and execute joint missions similar to those conducted in combat operations today. DMO would allow all assets to link together during a mission, actually communicating and visually "seeing" the other platforms in the simulator. Such operations allow building of an aircraft stack above an objective realistically.

DMO provide the capability that allows aircraft and ground forces to execute a mission or rehearsal without having to send their forces to a common location. This tool gives the leadership the ability to conduct more of these large-scale missions and scenarios, thus training more individuals and allowing more practice at the specific task. DMO also

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[53] Grover Lollar and Orris Hambleton, "USAF Distributed Mission Operations (DMO) 2005 NATO M&S Group Conference," In *The Effectiveness of Modeling and Simulation – From Anecdotal to Substantive Evidence* (pp. 7-1 – 7-16). Meeting Proceedings RTO-MP-MSG-035, Paper 7. Neuilly-sur-Seine, France: RTO. Available from: http://www.rto.nato.int/abstracts.asp. 2005. Pg. 7-1.

[54] Heithold, 2015 Air and Space Conference. September 15, 2015. [Accessed 11 Apr 16]

allows aircrew and ground forces to "train like they fight." Simulating the interaction between aircrew and the ground force when there is no actual ground force can produce a negative learning environment.[55]

DMO open a new realm of possibilities for training by allowing air and ground forces from different parts of the country to work together through simulation. Aircrew has the potential to plan, prepare, and assess concepts just as though they were conducting the actual battle, with all the relevant players.[56] This capability reduces the amount of money required for training while improving its quality against realistic threats.[57] It provides aircrew the ability to conduct training scenarios anywhere in the world.[58]

Even with simulators and DMO, there is still nothing better than training in the actual aircraft. No simulator can replicate the physical and psychological factors of actual flight. The smells, feel, distractions, noise, and overall psychological effects are important aspects of successful aircrew training. Additionally, the noise, turbulence, and other distractors are tough, if not impossible, to replicate in a simulator.

LIMITATIONS

AFSOC created and organized the Air Commando Development Program to develop the universal Air Commando. Its stated goal is to create an AFSOF member capable to answer questions specific to AFSOC and all AFSOC operations in the same way a SEAL can. As with any

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[55] Many times an instructor will "play" the role of the ground force. This can have negative learning as the air instructor is not qualified in the role they are replicating. It is critical to ensure the appropriate tools, to include people, are used to ensure successful training.

[56] Lollar and Hambleton, "USAF Distributed Mission Operations (DMO) 2005 NATO M&S Group Conference," 7-6.

[57] Lollar and Hambleton, "USAF Distributed Mission Operations (DMO) 2005 NATO M&S Group Conference," 7-6.

[58] Lollar and Hambleton, "USAF Distributed Mission Operations (DMO) 2005 NATO M&S Group Conference," 7-5.

nascent program, the Air Commando Development Program has some limitations.

The first of these limitations relates to people. Untrained personnel currently teach the Air Commando Development Program. Leaders and instructors tasked with implementing the program by AFSOC do not receive extensive guidance on how to execute it. While the lack of guidance is by design, to allow flexibility and creativity, the program requires more structure during the initial implementation. The program relies heavily at these crucial stages in an Air Commando's training on squadron instructors and Commanders to instruct general topics using general guidelines outlined in the workbooks.[59] For example, each unit discusses the history of their unit and platform in the Air Commando Development Program. However, each instructor could teach these events differently since the program does not include standardized guidance on what to teach.

Along with the instructor's personal preference is the next challenge with people, the unit Commander's preference. Each Commander has their style and priorities and these influence how instructors implement the program in the squadron. This influence has the potential to change the original intent of the program. As the program is currently structured, there are no guidelines to ensure units meet the objectives of the program, much less evaluate them.

A second limitation of the program is the ability to identify and weed out those who do not possess the traits of an Air Commando. One of the training triad pillars is people, but this does not mean just any person. Air Commandos, as previous chapters have identified, require the right person with specific qualities. Such qualities and characteristics include motivation, commitment, and desire. Instructors cannot teach these characteristics but can accentuate them with proper

[59] See the workbooks for the generic topics identified for instruction in MC-130H.

training. The characteristics, however, must be resident in the trainee. The ACDP does not have a process in place to remove personnel who do not demonstrate these appropriate characteristics even after they have received training. The flight evaluation board (FEB) is the only removal process for aviators is convened after a flight-related incident.[60] To forgo a removal process and to keep these members in the units increases the potential for toxic followers, who can corrupt the integrity of the program. As Robert Kelley stated, "Organizations stand or fall partly on the basis of how well their leaders lead, but partly also on the basis of how well their followers follow."[61]

A third limitation of the ACDP is the evaluation process. As the author has suggested, evaluation is a necessary step in any training program. Evaluations identify where programs could benefit from adjustments.[62] The ACDP evaluation process consists of a formal review every two years.[63] AFSOC headquarters collects and stores suggested change or identified potential shortfalls until it is time to review the program.[64] Most evaluation comes in feedback form, whether it is from

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[60] Air Force Instruction (AFI) 11-402 *Flying Operations,* 13 December 2010, Certified Current, 5 February 2013. Pg. 11. The FEB will remove the member's ability to conduct flight related duties. This may or may not be the goal of the leadership. Currently there is not a process to remove a member from AFSOC if they do not possess the required commitment, desire, or motivation to the mission of the unit, but may benefit another flying unit outside of AFSOC.

[61] Robert Kelley. "In Praise of Followers." *Harvard Business Review*, November 1988. https://hbr.org/1988/11/in-praise-of-followers#.

[62] Eduardo Salas et. al., *Training Evaluation in the Military*, 5.

[63] Colonel Steven Breeze, "Air Commando Development Program Initial Interview." Personal interview. 06 November 2016.

[64] Steve Eells, Hector Collazo, Pete McDonough, and George Hock. "Air Commando Development Program AFSOC/A3T Interview." Personal interview. 25 Jan. 2016. The author asked specifically if the program would be able to incorporate changes prior to this timeline and as of the interview date changes would only be made during planned revisions—every two years. While the program is maturing, the training office will receive suggested updates and revisions to incorporate into the program at six-month intervals until the two-year point is met.

the squadron Commander or the instructors. Feedback usually focuses on training implementation rather than the overall objectives and goals of the program. This focus is surprising as the organizational goals should set the requested training.[65] Currently, the review process allows the training to change the organizational goals.

Finally, a fourth limitation of ACDP is the potential to rely on simulators and DMO rather than exercises and actual flights in the aircraft. While a simulator is an exceptional tool to use for training, and DMO makes working with other trainees and units convenient, neither can replace directly working with others on exercises and flying the aircraft. Hands-on use of the equipment within the aircraft is required to train Air Commandos. Even though simulation and DMO do much for training, they need to replicate the operational conditions of the actual aircraft, including the sights, sounds, smells, and motion, to the greatest extent possible. Special operators take training much more seriously if it is realistic and does not appear to be merely "flying the simulator."

Conducting all training in the simulator has an added danger. Such training has the potential to create a negative learning environment.[66] Each aircraft simulator has nuances that differ in minute, but identifiable ways from the aircraft. When conducting the majority of training in the simulator, aircrew could transfer the simulator idiosyncrasies to the aircraft. Simulators are useful tools to train aircrew, but there is still a limit on how much training should occur in them versus the aircraft. Simulator training teaches trainees the mechanics of their job. Aircraft training instructs trainees in the art of being an aviation Air Commando.

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[65] Eduardo Salas et. al., *Training Evaluation in the Military*, 10

[66] The author flew MC-130H simulator certification flights at Hurlburt Field, FL. The goal of these flights was to certify the simulator and to ensure it flew just like the aircraft.

CONCLUSION

The first Air Commandos continuously evaluated their training. They supported a ground force deep in enemy territory, a capability that did not exist before. Their objectives were to not only insert but also resupply the Chindits at their remote locations. After Alison and Cochran had identified the requirements to make the mission successful, their training began. To ensure success, the first Air Commandos constantly evaluated their process. The different aircraft of the unit led to a diverse group of aircrew coming together and generating numerous ideas.[67] Throughout the build-up process, Alison and Cochran evaluated what they needed, who they needed, and how they were going to use the tools available.[68]

The development of the first Air Commandos had the right people in the right place at the right time. Arnold was the right leader as he showed dedication and motivation to the plan and trust towards Alison and Cochran to get the job done. Their personal experience gave them the knowledge needed to lead Air Commandos. In addition, they chose men who had all the attributes necessary to build a culture that could generate success. With their commitment, motivation, and belief in their abilities, Cochran and Alison were the two best officers to assemble this elite force.

Finally, the Air Commandos used the aircraft available to plan and execute a successful mission. Initially, Alison and Cochran did not know what capabilities the mission would require but through planning identified specific ones. They acquired gliders, fighter aircraft, bombers, and even six experimental helicopters to execute the mission efficiently.

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[67] Surowiecki, *The Wisdom of Crowds,* xix.

[68] The "what," "who," and "how" pertain to the tool, people, process, and the overall objective.

With little time available, they built their platforms at the same time as they were training.

The initial Air Commandos were able to adapt their training to meet the requirements of the mission. They did not have much in the way of aircraft and personnel, so they used the attributes each brought to the organization. Each member's drive, motivation, and commitment to the mission identified new and creative ways to use the tools available.

Aviation training now differs from early aircraft training in that it follows a prescribed program with an overall objective to produce a qualified aircrew member. To evaluate the effectiveness of the program, aircrew members typically complete an end of course survey.[69] This survey acts as the trainees' evaluation of the program. Unfortunately, the trainee receives this survey late and it reflects a snapshot of the individual trainee's perspective at that particular moment. Training programs overall typically do not get a more in-depth evaluation, much less assessment by individuals of the value of training over time, since the organization is meeting their overall objective of producing qualified aircrew members.

AFSOC today differs from the initial Air Commandos is the ability to choose who joins. While the initial Air Commandos were individually selected, the Air Commandos of today are not. Alison and Cochran needed individuals who already possessed the attributes of an Air Commando--motivation, commitment, maturity, and self-efficacy--because they had to create and deploy a capability without precedent. The initial Air Commandos were building the culture, not trying to maintain one, with all the problems the latter presents.

[69] The author has experience in completing and reviewing end of course critiques for all types of aviation programs. Many times individuals rush through these evaluation forms. Additionally, these forms are a snapshot in time and do not take into account what the trainee has learned and can apply once operational.

Chapter 6

Conclusion

> *Peculiarly, the officer who exercises initiative, dares to think differently, and succeeds, no matter how brilliant his success may be, is often sidetracked in his career at the first opportunity. Neither his associates nor his superiors understand him, and lack of understanding leads to lack of confidence. But I believe that men who 'insist upon flexibility in all things' and who retain their individualism are the ones who win battles, especially in the air. Fortunately, our nation had had enough of them when they were needed. I hope we always do.*
>
> - Harry "Heinie" Aderholt

This thesis set out to answer how Air Force Special Operations Command (AFSOC) should train future Air Commandos to adapt and innovate in future complex environments. The conflicts today differ from those of the past, as will those of the future. Having the ability to adjust rapidly to the changing environment and achieve the necessary results is part of the Air Commando heritage. The proper balance of people, procedure, and tools in training give the Air Commandos of today and tomorrow the flexibility required to meet the demands of the environment.

The training triad supports the ability for individuals to think outside the box to complete a mission. The first Air Commando leaders, John Alison and Phil Cochran, were forward thinkers who supported innovative initiatives and efforts from their men. As the deputy operations officer, Alison identified a way for his squadron to continue training even when his Wing and Group leadership prohibited it. When leadership canceled the day training lines due to the number of accidents, he chose to fly at night, hiding under the cover of darkness. Alison had the ability to identify when regulatory guidance hindered

training and he would find a way to train despite the regulations. He understood the rules, why they were in place, and he knew the consequences of breaking them.

Cochran was not a traditional officer and did not limit his thinking to traditional ideas and procedures. He took advantage of this strength when he and Alison were creating the Air Commandos by encouraging Wingate to generate additional requirements. Cochran enjoyed inventing new ways to achieve mission success. To Cochran, mission success was more important than anything else.

Both Alison and Cochran, and even to an extent Henry "Hap" Arnold, did not concern themselves with factors that did not directly affect the mission. Therefore, Alison and Cochran created the first Air Commandos using ad hoc procedures generated by experienced aircrew flying a few select types of largely outdated aircraft. The ability to produce success from almost nothing, to use innovation and foresight, is the basis of the Air Commando culture.

After World War II, Air Force Special Operations Forces (AFSOF) were built during times of need and disbanded when their mission was complete. For this reason, AFSOF training programs were never institutionalized. Alison and Cochran's unit disbanded once Japan surrendered. Established training programs for AFSOF would not become a reality until 1990 when AFSOC officially became a major command (MAJCOM). At this time, the training programs that generated AFSOC aircrew relied heavily on exploiting already skilled and experienced aircrew.

Training programs for platforms such as the MC-130H were dependent on individuals having some experience. Many aircrew members came from different backgrounds such as the B-52 and other C-130 units. Additionally, most aircrew members arrived in AFSOC with varying degrees of airland and airdrop experience. No matter what their background, all aircrew were able to bring in their expertise and a

different perspective on solving issues and accomplishing missions. AFSOC capitalized on these various perspectives to generate new and creative ways to solve problems. These new ideas allowed training programs to adapt and foster creativity by focusing on how to identify new ways to use old techniques and to generate new techniques.

AFSOC built training upon this solid foundation of aircrew experience. For many years, a majority of AFSOC aircrew members were on their second operational assignment. This experiential base allowed AFSOC training programs to focus on educating individuals about their particular weapon system rather than the basics. Aircrew became experts in their weapon systems in a short amount of time, allowing them to focus on advanced tactics and procedures.

Unfortunately, the formal establishment of the Command and its overreliance on experienced personnel began to impede the training program's effectiveness. Training programs of the 1990s focused on Cold War-era tactics and were no longer adaptable or flexible enough to meet the demands of AFSOC in the early 2000s. AFSOC could no longer rely on the older, more experienced aircrew members given wartime requirements imposed on all special operations forces (SOF). Additionally, the regulatory guidance of aircrew actions would increase as the Command matured. The result was MAJCOM-built training programs that focused on training experienced aircrew bounded within regulations.

As AFSOC grew, the ingenuity and innovation slowly diminished. In 2005, AFSOC had the opportunity to change. The U-28 program had the potential to change the manning and training model. Instead, the 1990s AFSOC cultural mindset of "this is how it has always been done" influenced the initial cadre. The comparison between what the first Air Commandos set out to accomplish and the task of the four initial U-28 cadre members to create a specialized unit is relatively straightforward.

Cochran and Alison built and staffed a unit, smaller than most, to support the Chindits with infiltration, exfiltration, and resupply in Operation THURSDAY. The four initial U-28 cadre built and staffed a unit, smaller than other AFSOC units, to support ground forces using Intelligence, Surveillance, and Reconnaissance (ISR). In both instances, external ground force users placed a high demand on their air assets to continue to provide their respective capabilities. Also, those in charge developed a solution to an unprecedented problem with little external interference. They had the right tools, the right people, and had unconditional support from the leadership to build the force as they envisioned. Nevertheless, these two instances differ drastically in terms of their training programs.

The first Air Commandos relied on ad hoc procedures to get the job done, including disregarding standard procedures. Alison, Cochran, and Arnold knew the mission required the expertise of these individuals for a short amount of time. Since the unit never intended to remain operational beyond their support for the Chindits, so they trained to the most demanding conditions. As for the U-28 program, the initial cadre built their force under a Command with established regulations. They focused on building the unit with predetermined procedures rather than adjusting the method to fit their needs. The initial cadre concerned themselves with the experience they were getting, rather than how they would conduct the mission.

AFSOC leadership has recognized the need to adjust the current training program and their solution is the Air Commando Development Program. The intent of the program is to create a universal Air Commando, one who identifies with the history of Air Commandos, understands the missions of the various platforms in AFSOC, expertly plans and executes special operations missions, and exhibits all of the qualities of their predecessors.

RECOMMENDATIONS

The Air Commando Development Program is a necessary, and in parts worthwhile, program for aspiring Air Commandos to complete. The three phases give incoming Air Commandos a glimpse into what it takes to be an Air Commando and highlight important traits. Not every Air Commando selectee possesses these traits—innovation, creativity, motivation, and commitment—and AFSOC should have a way to remove those individuals lacking the important characteristics of an Air Commando. Currently all personnel assigned to AFSOC will remain whether or not they possess these traits. As one of the vertices of the training triad, people are the most important. Without the right people, training programs will fail. AFSOC needs a process, such as a quality assurance or reassignment program, to remove those without such traits before they have a potentially serious negative effect on the force.

Next, AFSOC should look at changing how the flight-training unit (FTU) conducts initial flight training. Currently the Air Commando Development Program does not adjust any training that occurs at the FTU. The inability to adjust FTU training is a lost opportunity for AFSOC leadership to identify those who do not possess the appropriate skills necessary to become an Air Commando. The FTU is the best place to begin teaching trainees about the heritage and qualities of an Air Commando. It is also where trainees should begin to understand the culture of AFSOC. The individuals identified for removal should return to their previous command or have the opportunity for reassignment without repercussion or prejudice.

A third recommendation for ACDP is to integrate more fully the characteristics of an Air Commando into its various phases of training. While the program highlights motivation and drive by making it a self-paced program, it does not promote creativity and broad mission knowledge. There are only two times during ACDP where an Air Commando has the freedom and flexibility to develop and apply a

creative solution to a problem: first during the full mission profile requirement and later, at the end of the program, during the capstone exercise. If the ACDP incorporated the FTU courses, the Air Commando could use several of these sorties to develop their ability to generate innovative solutions to complex problems.

A final recommendation for ACDP is for the creation of a leadership and instructor course, until the program has full support and understanding throughout AFSOC. While headquarters, AFSOC, has little oversight by design, it needs to be more explicit in providing initial direction and guidance to the units conducting the training in order to ensure the units meet the goals of ACDP. There are Majors and Lieutenant Colonels who have not been through the program and will return as a squadron Commander. Without initial headquarters guidance, these individuals may interpret the program differently. At worst, they may not support ACDP and jeopardize its implementation in their units, putting the program at risk. Therefore, AFSOC should create an initial leadership course outlining the objectives and goals of the ACDP and provide unit leaders to discuss and better understand the headquarters vision for its implementation.

While not an all-encompassing list, these are just some recommendations to improve the ACDP and achieve its overarching goal of restoring an overall Air Commando culture. As this thesis has argued, any training program must strike a balance between people, programs, and tools. Only by rebalancing the training triad will AFSOC be able to train future Air Commandos to develop their ability to adapt and innovate in future complex environments. Restoring this balance will aid AFSOC operations and programs now and in the future, regardless of the challenges future Air Commandos face.

Appendix A

Kirkpatrick's four-level Implementation Guidelines:

Level 1: Reaction

Determine what you want to find out
Design a form that will quantify reactions
Encourage written comments and suggestions
Attain an immediate response rate of 100 percent
Seek honest reactions
Develop acceptable standards
Measure reactions against the standards and take appropriate action
Communicate the reactions as appropriate

Level 2: Learning

Use a control group, if feasible
Evaluate knowledge, skills, or attitudes both before and after the training. For example, use a paper-and-pencil test to measure knowledge and attitudes and a performance test to measure skills
Attain a response rate of 100 percent
Use the results of the evaluation to take appropriate action

Level 3: Behavior

Use a control group, if feasible
Allow enough time for a change in behavior to take place
Survey or interview one or more of the following groups: trainees, their bosses, their subordinates', and others who often observe trainees' behavior on the job
Choose 100 trainees or an appropriate sampling
Repeat the evaluation at appropriate times
Consider the cost of evaluation versus the potential benefits

Level 4: Results

Use a control group, if feasible
Allow enough time for results to be achieved
Measure both before and after training, if feasible
Repeat the measurement at appropriate times
Consider the cost of evaluation versus the potential benefits
Be satisfied with the evidence if absolute proof isn't possible to attain

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