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COHESION

The Key to Special Operations Teamwork

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COHESION
The Key to Special Operations Teamwork

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Foreword

Maj Ralph E. McDonald's study broaches a subject that no organization wants to admit it might have trouble with—cohesion. The report not only illustrates the importance of cohesion, but also distinguishes between types of cohesion that affect a unit. The study concentrates on the underappreciated cohesion found between different units, but essential to mission success.

United States special operations forces (SOF) has significantly matured since the infamous Iranian hostage rescue attempt. Cohesion played a critical role in this maturing. Major McDonald demonstrates the need to further maintain and improve cohesion. In times of reduced budget cuts and increased contingency operations, SOF does not have time to build this cohesion after responding. The cohesion required in life and death situations must already be there!

ROBERT M. JOHNSTON, Colonel, USAF
Director, Airpower Research Institute

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About the Author

Maj Ralph E. McDonald

Maj Ralph E. McDonald is the 1993–94 research fellow from Air Force Special Operations Command. The research fellowship is conducted through the Airpower Research Institute, Air University College of Aerospace Doctrine, Research, and Education at Maxwell Air Force Base (AFB), Alabama. He graduated from The Citadel in 1980 with a bachelor of science degree in business administration. As a cadet, he was a member of both the Air Force Reserve Officer Training Corps and the Arnold Air Society. Major McDonald is a graduate of the undergraduate pilot training (UPT) class 83-02 conducted at Columbus AFB, Mississippi. He is also a graduate of Squadron Officer School, Air Command and Staff College, Aircraft Mishap Investigation Course, and Joint Special Operations Staff Officer Course.

Following UPT, Major McDonald was assigned to the 67th Aerospace Rescue and Recovery Squadron (ARRS) at Royal Air Force Woodbridge, United Kingdom from June 1982 to June 1985. In August 1985, he was assigned to the 55th ARRS at Eglin AFB, Florida. While stationed at Eglin AFB, the composite 55th ARRS was split into two separate units with the HC-130s becoming the 9th Special Operations Squadron (SOS) and part of the 1st Special Operations Wing (SOW). Major McDonald's duties while assigned to the 55th ARRS and 9th SOS included chief of mobility, chief of plans and tactics, and duty with the 1st SOW at Hurlburt Field, Florida as the HC-130 standardization and evaluation pilot. From June 1991 to June 1993, he was reassigned to Hurlburt Field as the Headquarters Air Force Special Operations Command HC-130 pilot.

Major McDonald's flying has involved operations and exercises within North America, Europe, the Middle East, and the Pacific. He is qualified in night vision goggle (NVG) low level and NVG landings. Major McDonald's crew was the first of only two HC-130 crews to conduct NVG air refueling of special operations helicopters in Iraq during Operation Desert Storm. He is a senior pilot and flight examiner with more than 3,700 hours flying the T-37 Tweet, T-38A Talon, C-130E Hercules, and HC-130P/N Combat Shadow. He is married to the former Elizabeth Kemp. They have three children—Austin, Kendall, and Logan.

Preface

Little did I know what lay ahead, when Lt Col Patrick St. Romain suggested I volunteer to become the Air Force Special Operations Command's (AFSOC) research fellow. Before I knew it, a one-line topic had me on my way to Maxwell Air Force Base. I remember Col John Bridges, Headquarters AFSOC Director of Plans, Programs, and Acquisition Management and soon to be my reporting official, saying, "You should not be surprised when your thesis keeps getting massaged and does not look anything like the original." As predicted, the topic changed several times due to either the classified nature of a particular subject or the fact that someone else was already working the issue within headquarters and planned to have a staff package together in one to two months. Finally, I settled on the issue of cohesion.

The idea of cohesion surfaced when I was conducting my preliminary research. Unfortunately, cohesion is not easily defined. I also found that it is not used much when talking about separate units versus individuals in a group. Yet, this area needed to be explored the most. Since 1980 special operations forces (SOF) has made tremendous improvements in the joint realm. These improvements made it difficult to determine if cohesion could be improved further. I decided to try a different approach to gathering data. Most researchers interview commanders and their staff—I interviewed the average aircrew member (an important aspect of empowerment). SOF has made tremendous improvements in cohesion but it must continue to be improved.

I wish to thank Maj Gen Bruce L. Fister, AFSOC commander, for the opportunity to explore new territory. I am grateful to Cols John Bridges, Tim Davidson, and John S. Stephens and their doctrine staff for their support. Many thanks must go to my reading group—Col William Hudspeth, fellow special operator and subject matter expert; Maj Gary Storie, research advisor; Maj Budd Jones, buddy analyst; Dr Doris Sartor, substantive editor; and Dr James Titus, associate research director—for their ceaseless efforts in clarifying thoughts and correcting my inappropriate grammar. Special thanks also go to the production staff for their outstanding help.

This was a most challenging year for me and my family who resided in Fort Walton Beach, Florida. I must thank Beth and our three children, Austin, Kendall, and Logan, for their understanding and support. I love you very much.

RALPH E. MCDONALD, Major, USAF
Research Fellow
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Introduction

The challenge of military leadership is to identify and correct behavior that threatens cohesion, to assemble and reassemble soldiers into workable teams and create the environment in which cohesion can thrive.

—Gen Frederick J. Kroesen, USA, Retired

As General Kroesen suggests, cohesion is not something that just happens or can be left alone once it is developed. Cohesion must be continually nurtured. The question is—has special operations forces (SOF), particularly the air component, developed the cohesiveness required to meet the short notice contingencies likely to confront the US in current and future political situations? Further, are the mechanisms in place to continuously improve cohesion in this period of shrinking resources and joint tasking? SOF has been and will continue to be used throughout the world on short notice contingencies in flexible joint packages to minimize national risk and maximize strategic advantage.[1] This report will explore what cohesion is and how it can be nurtured.

Chapter 1 begins with Nora Kinser Stewart's definitions of four types of *cohesion* that are important to the military. However, these categories are not all inclusive. Cohesion between separate but equal units is also important. SOF finds this type of cohesion very important for the success of its flexible joint packages. Elements such as trust, respect, friendship, doctrine, training, and education are essential to building this cohesion.[2] Then the chapter looks at how SOF has improved cohesion since the failed Iranian hostage rescue attempt in 1980. The improved cohesion resulted in successful operations in Panama and the Persian Gulf.

Despite improvements in cohesion in SOF, there is still room for further improvements and the need to maintain high levels of cohesion. Chapter 2 examines how doctrine, education, and training are used as the building blocks of cohesion. Current joint special operations doctrine has stressed the importance of small, highly trained, joint-tailored units. Education ensures that doctrine is "growing and evolving."[3] Formal and informal education tools are used to first understand the current doctrine and then to examine doctrine's validity. Training can validate doctrinal ideas too. However, training's strength comes from the ability to build cohesion directly between units, hopefully based on sound doctrine. As with any joint force, SOF must understand the divergent viewpoints of its components. Gen Donn A. Starry, USA, Retired, says "[Cohesion] requires work—study; before the fact, not in the midst of crisis."[4] Doctrine, education, and training still need improvements to maximize General Starry's precrisis requirement.

One tool for improvement and maintenance of cohesion is war gaming. Chapter 3 begins by examining the idea of war games, finding it to have many different connotations. This report distinguishes war games from simulations and exercises. War games, especially those concentrating on education, can improve knowledge of units, build trust and understanding, explore tactics, and build the background necessary to plan SOF strategy. War games are a very cost effective way to build the knowledge

and familiarity necessary for cohesion when compared to other alternatives. Unfortunately, SOF aviation is poorly represented in war games.

Chapter 4 presents recommendations which are reasonably achievable and will increase cohesion within SOF. These recommendations also apply to objectives in the most recent *Air Force Special Operations Command Strategic Plan* including "improving combat training . . . commit to the professional development of our people . . . develop quality leaders . . . tailor doctrine to a dynamic global environment . . . cultivate visionary thinking, creativity, and innovation."[5] We must fulfill Maj Gen Bruce L. Fister's challenge to be "A Step Ahead."[6]

Notes

1. Hon James R. Locher III and Gen Carl W. Stiner, USA, *United States Special Operations Forces Posture Statement 1993*, i.

2. Nora Kinser Stewart, *South Atlantic Conflict of 1982: A Case Study in Military Cohesion* (Alexandria, Va.: US Army Research Institute for the Behavioral and Social Sciences, April 1988), x.

3. Air Force Manual 1-1, *Basic Aerospace Doctrine of the United States Air Force*, vol. 1, March 1992, vii.

4. Gen Donn A. Starry, USA, Retired, "Review of *Handbook for Joint Commanders*," *A Common Perspective* 2, no. 1 (February 1994): 26.

5. *Air Force Special Operations Command Strategic Plan 1993*, 16–17.

6. Ibid., 2.

Chapter 1

The Role of Cohesion

Four brave men who do not know each other will not dare to attack a lion. Four less brave men, but knowing each other well, sure of their reliability and consequently mutual aid, will attack resolutely.

—Ardant Du Picq

Has special operations forces (SOF), particularly the air component, developed the cohesiveness required to meet the short notice contingencies likely to confront the US in current and future political situations? This chapter examines the importance of cohesion in successful military organizations. It will also discuss why the United States Special Operations Command (USSOCOM) and the Air Force Special Operations Command (AFSOC) were formed. Finally, the chapter will identify areas requiring improved cohesion within the air assets of USSOCOM.

What is Cohesion?

Army Field Manual (FM) 22-100, *Military Leadership,* defines *cohesion* as "the existence of strong bonds of mutual trust, confidence, and understanding among members of a unit."[1] Air Force Manual (AFM) 1-1, *Basic Aerospace Doctrine of the United States Air Force,* says *cohesion* is "the cement that holds a unit together through the trials of combat and is critical to the fighting effectiveness of a force."[2] Nineteenth century French calvary officer and military analyst Ardant Du Picq further describes *cohesion* as, "the intimate confidence, firm and conscious, which does not forget itself in the heat of action and which alone makes true combatants."[3] While most of the writing on cohesion deals with the individual soldier and small units, cohesion is important in large organizations. Cohesion becomes a real factor in the joint SOF arena where several units from different services, possessing divergent backgrounds, are required to operate in complex interactions under dangerous and confusing situations.

Cohesion's Importance

The importance of cohesion has been recognized throughout history. Roman legionnaires were trained to maintain their ranks during the heat of hand to hand combat.[4] Nineteenth century military philosopher Clausewitz did not ignore the value of the individual soldier to unit effectiveness.

> An army's military qualities are based on the individual who is steeped in the spirit and essence of this activity; who trains the capacities it demands, rouses them, and makes them his own; who applies his intelligence to every detail; who gains ease and confidence through practice, and who completely immerses his personality in the appointed task.[5]

The United States Army (USA) so embraced the concept of cohesion, that in 1981, Gen Edward C. Meyer, then Army chief of staff, approved the cohesion, operational readiness training (COHORT) unit replacement system. "Meyer's vision was that Army personnel management policies ought to foster unit bonding, cohesion, competence, self-confidence, and trust in combat units that would 'ensure effective combat performance and organizational coherence while avoiding high levels of psychological breakdown in battle'."[6] The USA originally used the COHORT system to develop company-size units. Because of successful initial trends, the program was expanded to include battalion-size units in 1984 and division-size units in 1985.[7]

Four Types

Nora Kinser Stewart in her report, *South Atlantic Conflict of 1982: A Case Study in Military Cohesion,* defines *military cohesion* as "a special bonding that implies that men are willing to die for the preservation of the group, the code of honor of the group, or the valor and honor of the country."[8] Further, she identifies four types of cohesion that range from the individual to a nation—horizontal, vertical, organizational, and societal. References to horizontal, vertical, and organizational cohesion are found throughout military literature and are concerned with the micro or small unit level. Stewart's idea of societal cohesion is a new concept, or at least undervalued.[9]

Horizontal cohesion involves the following elements: peer bonding, sense of mission, technical proficiency, lack of turbulence, teamwork, trust, respect, and friendship. Vertical cohesion is the bonding or relationship between subordinates and superiors characterized by an open organizational climate, leaders' concern for their subordinates, leading by example, trust and respect for the leader, and shared unpleasantries and training. Organizational cohesion is the bonding or relationship of the individual to the military as an organization or unit and includes: loyalty to the nation and its values, patriotism, military tradition, religious beliefs, and a well-defined concept of valor, heroism, and masculinity. Societal cohesion is bonding of the military and the individual to the society or culture at large. Factors affecting societal cohesion include: military culture and values; defense budget; strategy and doctrine; training; command, control, and communications; intelligence; logistics; and medical care.[10] To get a better understanding of cohesion we will examine the South Atlantic conflict of 1982 in relation to Stewart's definitions.

The Falklands Example

The South Atlantic conflict of 1982 was fought over a group of isolated islands whose weather was unfavorable with 100 percent humidity and freez-

ing temperatures. The Argentines invaded and captured the Malvinas—the Falklands to the British—making the islands an Argentine stronghold. During the ensuing conflict to regain control, the British had seven ships sunk, 10 ships damaged, and lost 256 men; the Argentines lost approximately 90 aircraft and 746 men.[11] Neither the Argentines nor the British had a significant technological or equipment advantage. So, how could the British travel over 8,000 miles and win? Stewart believes that cohesion was a crucial factor for both sides.

The British have a long history of fighting battles far from home. They have aided fellow countrymen and women living the colonial British life-style for centuries. For British soldiers, it was a duty and an honor to defend the Falklands. In Britain, public opinion and morale were high. The British converted and modified ships and aircraft in record time. Practically every church in Britain has a memorial to military veterans. The Chapel of Christ Church in Oxford has a plaque which reads: "Dedicated to the memory of all ranks of the Oxfordshire and Buckinghamshire Light Infantry who have given their lives for their country and in the service of the regiment since its foundations in 1741."[12]

The British Army is focused around the regimental system. The regimental system uses local recruiting and pride to increase bonding. World War I highlighted this system, many villages lost inordinate numbers of young men due to death in battle. After World War II, the large size of the British Army was significantly reduced because of economic conditions. This downsizing did not impact unit pride or the individual's sense of bonding to his unit.[13] Military historian J. F. Guilmartin says the following about the regimental system:

> The excellent performance of British ground forces in the South Atlantic conflict came as no surprise to the historically well-informed . . . the British regimental system has . . . in modern times . . . produce[d] troops who would stand and fight, generally with considerable competence and often with uncommon valor. This is generally attributed to the system's ability to develop and maintain unit cohesion through effective socialization of the primary military group. . . . The soldier is bound to his regiment and to his primary military group because the regiment supports, nurtures, and protects him in real and concrete ways.[14]

Vertical and horizontal cohesion play an important part in the British regimental system. The British soldier is taught his mission from day one. In the case of the Falklands, the mission was to retake sovereign British territory. The soldier is trained in technical and tactical proficiency with emphasis on the ability to think independently. Routinely, British servicemen were innovative. When Harrier aircraft black boxes were malfunctioning due to the adverse weather, "British sailors dried out Harrier black boxes in warm galley ovens."[15] Personnel turbulence is reduced in the regimental system, since enlisted and officer alike serve long assignments in the same unit or regiment. Throughout a soldier's training, teamwork is stressed. During the conflict, the question arose concerning what to do with the wounded in ongoing engagements? Stewart recalls what one British paratrooper said: "We had been told that if we were hit . . . the other men would go on. We all knew that

we would be left. But you can't be a para and leave a buddy on the battlefield."[16]

Through training the officer corps has developed trust and respect with the enlisted force. One way the British developed this trust and respect is through an exercise called Tactical Exercise Without Troops (TEWT). Brig Gen Nick Vaux, former commander of the 42 Commando Royal Marines (then Lt Col), describes this as a time for "aspiring commanders to resolve tactical and logistic problems based upon marked maps of ground actually before them. The crucial preliminary is the 'Appreciation', in which 'Factors' are identified and then analysed to deduce the 'Courses Open'; the best is then identified."[17] We might call this war gaming. This helps develop the knowledge required for respect. This knowledge is taught to others and practiced during field training where officers lead by example using an open organizational climate, that instills ingenuity. Brig Gen Julian Thompson, Retired, 3 Commando Regiment commander at the time, described this cohesion during the Falklands conflict: "Once again superior training, aggressive soldiering, the ability to think fast and, it must be said, calling for and getting artillery fire quickly, had won the day. The value of worked-up and practised [sic] team was proving itself in this campaign as it had before."[18] The British seemed to have a firm grasp of cohesion. How about the Argentines?

The Argentine junta was dealing with major street fighting due to trade unions disputes only two days before the Argentine invasion. More than 2,000 people were arrested. But once the Argentines decided to take the Malvinas, all 2,000 protesters were released and without hesitation marched in parades against Britain.[19] The Argentines felt the invasion of the Malvinas was morally correct. Stewart interviewed many Argentine officers and ex-enlisted soldiers after the war, most felt the same as this one soldier: "I would go back tomorrow to free the islands. They are ours. They belong to us. The English can stay as long as they want. We will return."[20] Unity within the country ran deep; people made banners and shipped clothes to their troops in the Malvinas. The Argentines did not have the church memorials like the British, but they did have deep moral convictions.[21] The Argentines had been involved in the geopolitical strategy of South America for some time. This involvement did not require any significant use of conventional military forces. Over the last sixty years the Argentine military has been inconsistent in its size.

Between 1930 and 1983, there have been 19 governments in Argentina. Unlike the United States' civilian control of the military; the Argentine military has been the ruling junta several times. Depending on who government officials favor, the military budget would significantly fluctuate. The Argentine military relies on mandatory conscription at age 18. Some conscripts get waivers for medical problems, special family concerns, and so forth. Depending on the training budget, the rest are picked via a lottery to serve in one of the services for only one year. Most of the conscripts exit after their time expires. Actually, many conscripts are allowed to exit three-to-four months earlier than their one year commitment. Some horizontal bonding occurs between the enlisted during basic training. The one year or less tour is usually

insufficient for vertical cohesion. However Turner says, "In many cases, it was the heroism [an element of organizational cohesion] of new recruits fighting alone, that held the British as long as possible."[22] The officer system also has its problems.

First, one must be a native Argentine to become an officer. Until the 1960s, most cadet nominees had Spanish, English, or Italian ancestry and came from urban middle class families. Officer professional development comes in long drawn out (three-to-four years) schools with little independent thinking. This homogenous group of officers has been able to bond horizontally quite well within each service.[23] However, Guilmartin explains that politics has caused its share of problems of interservice rivalry.

> The Argentine Army, Navy, and Air Force engaged in a brief but active shooting war with one another in a confused series of coups and countercoups in the political chaos following the ouster of the Frondizi government in 1962. [There was] a news photograph showing a long line of burned-out Gruman F-9F fighters of the Argentine Naval Air Arm, victims of an Argentine Air Force raid. This sort of thing is not easily forgotten.[24]

As the foregoing suggests, cohesion can be a critical element in military success. The British had just as many young soldiers as the Argentines, but used the regimental system to build cohesion before combat. The British overcame unusual circumstances, due to open thinking allowed at all levels and well-developed horizontal and vertical cohesion. The Argentines possessed this vertical cohesion in their elite units only. Unfortunately, many of the regular units assigned to Malvinas consisted mostly of conscripts who had only completed basic training about a month earlier. Both countries showed strong signs of organizational cohesion with heroism, religious beliefs, patriotism, loyalty to nation, and values. Societal cohesion played a major role in this conflict. The Argentine political system and budget have kept the military from developing the doctrine, strategy, and training required. On the other hand, the British have been fine tuning their strategy, doctrine, training, budget, and so forth for more than two hundred years. Stewart suggests that these four types of cohesion are critical to a military organization's success. We have explored the makeup of each type of cohesion. However, the author believes cohesion does not fit nicely into just one category. Therefore, the important thing to remember about cohesion is that it is made of key elements. These elements are just as important to SOF as they are to any other organization.

SOF's Problem with Cohesion

The difficulties with cohesion experienced by American SOF in the late 1970s are clearly illuminated by the failed Iranian hostage rescue mission. This failed mission was a result of the overthrow of the Shah of Iran in 1979. Students inflamed by Islamic fundamentalism seized the American embassy on 14 February 1979. The Iranian government convinced the students to

release the hostages and leave the embassy. The embassy was again overrun on 4 November 1979 by revolutionary militia and militant students and this time they did not leave.[25] Thankfully, most Americans had been able to depart Iran by this time. The militia and students were not going to free the embassy hostages unless they would receive something of value, preferably the return of the Shah. American decision makers were divided about how to free the 53 hostages.

Possible options ranged from a special operations rescue mission to conventional naval blockades or possible retaliatory air attacks. The Joint Chiefs of Staff (JCS) advised that a special operations mission held the best chance for success. President Jimmy Carter agreed and thus approved the fateful plans for Desert One. Unfortunately, SOF had experienced drastic reductions in manpower and organizational scope following the Vietnam conflict. Before 1969 the Army had seven active duty special forces groups. By 1980 the Army was down to three with the possibility of deactivating another group. The Air Force had cut about 90 percent of its special operations capable aircraft and was seriously looking at transferring the rest to the reserves.[26] Col James H. Kyle, USAF, Retired, then the deputy commander, joint task force/air component commander (COMJTF/ACC), reported that "some myopic planner gave all of our heavy-lift choppers to a tactical communication unit. This left us without the means to deliver assault forces deep into hostile territory."[27]

In spite of SOF's manpower and equipment problems, those in this area had high morale and discipline. These troops knew their skills would be required one day. Unfortunately, before the eventual decision to form a joint task force (JTF), there had been no standardized chain of command or real integration between the different service's SOF. Maj Gen James B. Vaught, USA, COMJTF had established good command and control (C^2) from himself up to the president. However, command channels downward were less well-defined. A Marine officer who had been brought in to advise the COMJTF regarding helicopter operations, soon was informally supervising the helicopter operations. The deputy COMJTF/Air Force component (AFC) was named the Desert One "on scene" commander just before execution of the rescue attempt. Additionally, an Air Force officer who had been acting as a country expert was named the deputy COMJTF on 12 April 1980, quite late in the preparation process.[28]

For operational security reasons, units developed and practiced their specialized skills at separate locations, then would exercise together for short periods, only to return to their separate locations. This added to the C^2 confusion. During training, helicopter forces had the most problems with getting organized. The actual force composition was a lingering question. Even after this problem was decided, some helicopter crew members were replaced for various reasons after the joint training exercises.[29] The units which had been formed before the operation such as Delta and MC-130 aircrews only had to concentrate on new techniques and intelligence, while the helicopter aircrews

had to reacquaint themselves on a recurring basis with new crew members and new mission parameters.[30]

The separate and uncoordinated training exercises made vertical and horizontal cohesion difficult between units. Even though Stewart does not specifically discuss cohesion among different units, it is critical in the SOF arena. The elements of trust and respect (both for peers and leaders), friendship, technical proficiency, and shared unpleasantries also apply here. In this type operation, your life can depend on someone you really know nothing about. Some individual units such as the Army's Delta Force, who had just recently passed a readiness inspection, showed very high vertical and horizontal cohesion before the formation of the JTF.[31] On the other hand, the helicopter unit never truly reached this required cohesion.[32] We can assume that some sort of organizational cohesion existed, but it was not enough. Why else would an individual stay in SOF given the budgetary state and career opportunities of the time? Tactical Air Command's resentment of "missions involving counterterrorism, counterinsurgency, and guerrilla warfare"[33] along with inadequate command, control, and communications (C^3), strategy, doctrine, and training demonstrated a lack of societal cohesion.[34] The most important outcome of the failed Iranian hostage rescue mission is that it started the ball rolling toward creating a cohesive unified SOF command.

Creation of the United States Special Operations Command

The Rescue Mission Report, commonly referred to as the Holloway Commission Report or Holloway Report, made two significant recommendations. First, "that a Counterterrorist Joint Task Force (CTJTF) be established as a field agency of the Joint Chiefs of Staff with permanently assigned staff personnel and certain assigned forces."[35] Second, "that the Joint Chiefs of Staff give consideration to the establishment of a Special Operations advisory panel, comprised of a group of carefully selected high-ranking officers . . . who have career backgrounds in special operations. . . ."[36] The intent of the two recommendations was to get rid of the ad hoc nature of any future missions. Specifically, the report called for a centrally controlled organization, a reduction in interservice rivalries, and an increase in joint training to improve unity of command and cohesion of effort.[37] However, it appears the commission recommendations were not taken to heart.

The next challenge came during Operation Urgent Fury in Grenada in October 1983. Col Jerry L. Thigpen, former 8th Special Operations Squadron (SOS) commander, states the following concerning Operation Urgent Fury, "many of the same problems (command and control, joint operation[s], [demands for] participation by all services in the operations, etc., [interservice rivalry]) that had been identified during Desert One surfaced again."[38] Some would say there had been enough time between the two events to work out all the problems. In the meantime, the SOF budget had risen from $440 million

to $1.1 billion from 1981 to 1986, the size of units grew, and a Joint Special Operations Agency (JSOA) was formed at the Department of Defense (DOD) level. What seemed to be wrong? Deputy Secretary of Defense Paul Thayer believed the services were dragging their feet on SOF revitalization. He sent a memo to each service warning that "lowering the [revitalization] priority would not be tolerated."[39]

> Lt Gen John T. Chain, then Air Force deputy chief of staff for operations, warned members of Congress that having Special Forces is "like carrying a loaded gun." "Some people seem to think that the use of Special Forces would be less provocative than the use of overt conventional forces". . . they should only be used as traditional behind the lines commandos who organize guerrillas and engage in sabotage to support the US military during war.[40]

Congressional members were becoming upset with inadequate DOD efforts and passed the Cohen-Nunn Act in November 1986 only one month after the passage of the Goldwater-Nichols Department of Defense Reorganization Act.[41]

The Cohen-Nunn Act created USSOCOM (a unified command), a separate major fund program for USSOCOM, and a position for an assistant secretary of defense for special operations and low-intensity conflict.[42] USSOCOM is responsible for 10 specific areas:

- Developing strategy, doctrine, and tactics.
- Training assigned forces.
- Conducting specialized courses of instructions for commissioned and non-commissioned officers.
- Validating requirements.
- Establishing priorities for requirements.
- Ensuring the interoperability of equipment and forces.
- Formulating and submitting requirements for intelligence support.
- Preparing and submitting budget proposals to the secretary of defense.
- Exercising authority, direction, and control over expenditure of funds.
- Monitoring promotions, assignments, training, and professional military education of special operations officers.[43]

At least five of the above areas had a significant impact on cohesion. However, SOF's problems were not eliminated overnight. USSOCOM had a little over two years to prepare for its first real test, Operation Just Cause in Panama. Before Operation Just Cause, USSOCOM had finally established its chain of command. In the case of the Army, it had already made SOF a separate combat arms branch on 9 April 1987 under the First Special Operations Command, now the United States Army Special Operations Command (USASOC). The Naval Special Warfare Command (NAVSPECWARCOM) was established in April 1987 and controls all US based naval special warfare (NSW) forces since March 1988.[44] Air Force SOF remained under the Military Airlift Command (MAC) within Twenty-Third Air Force until 22 May 1990. This C^2 structure was the first step in complying with Congress' mandate and the Holloway Report.

Through this C^2, USSOCOM started to build trust, respect, and teamwork between the different components through routine exercises. Intelligence and commander in chief Southern Command (CINCSOUTH) played a vital role in designating Panama as a highly probable area of operations as early as the end of 1987.[45] Gen James Lindsay, first USSOCOM commander (CINCSOC), had several options available depending on the amount of planning and preparation time. As it turned out, the US had time on its side. This allowed CINCSOUTH to use both SOF and conventional forces and maximize their respective strengths in Operation Just Cause. SOF executed the initial operations.[46]

During the preliminary rehearsals, SOF had specific targets designated and conducted several practice exercises. Ground force training with AC-130s proved critical to the outstanding coordination during the operation. Good training had built the technical proficiency, teamwork, and trust between units. This was not the only example of cohesion building. Lt Col Joe Hunt, Ranger battalion commander, explains that joint readiness training (JRT) had prepared SOF for the airfield seizures: "The highest level [JRT] normally a battalion level, bringing all the pieces together . . . it's training for the Air Force just as much as it is for the Rangers and they'll bring a variety of different aircraft."[47] Colonel Hunt also says that the 14 December 1989 rehearsal for Rio Hato was almost identical to the actual assault. USSOCOM had spared no expense. This was a sign that the US government had started supporting its SOF strategy with the appropriate budget, C^2, training, and organization required for societal cohesion. Just around the corner was another example, the creation of Air Force Special Operations Command (AFSOC).

Evolution of Air Force Special Operations

In the seventies, AFSOF assets belonged to either Tactical Air Command (TAC), MC-130Es, AC-130s, H-1s and H-3s; Pacific Air Forces (PACAF), MC-130Es; or United States Air Forces Europe (USAFE), MC-130Es. Before the Iranian hostage rescue mission, the 1st Special Operations Wing (SOW) was almost on the verge of extinction due to SOF budgetary problems. Aircraft reliability was so bad that the 1st SOW was unable to get any of its aircraft airborne one night during an operational readiness inspection.[48] After the failed Iranian rescue attempt, nine HH-53 Pave Low aircraft were added to the 1st SOW to increase long-range assault capabilities. On 1 March 1983, Twenty-Third Air Force of the MAC was created. Twenty-Third Air Force was responsible worldwide for all Air Force SOF, search and rescue, missile site support aircraft, aeromedical evacuation, operational support aircraft, weather reconnaissance, and high-altitude atmospheric sampling. SOF comprised only about one-third of Twenty-Third Air Force's assets. Twenty-Third Air Force was baptized approximately eight months after creation with Operation Urgent Fury in Grenada.[49]

Recalling Colonel Thigpen's earlier comments, Grenada was not as much a success as advertised. This applies more to the overall picture than to just SOF. Areas that needed improvement included general coordination between the Army and Marine forces once on the island, call for fire with AC-130s, lack of intelligence, and logistics problems. Fortunately, the small size of the resistance prevented any item from becoming a critical situation for US forces. Progress within Twenty-Third Air Force was slowly made before USSOCOM came on line. Many SOF officers thought that the move of SOF to MAC would be detrimental to promotions and advancement. Actually, SOF only had two dedicated positions above the wing level, one at Ninth Air Force and one at Headquarters TAC. However, MAC had realized the important role SOF personnel would play in the future and had begun SOF integration within the command. "The dismal promotion rate for SOF personnel experienced under TAC in the 1970s and early 1980s began to change as early as 1984."[50] But there was much more to overcome.

Twenty-Third Air Force was the Air Force component to USSOCOM, but was still part of MAC. This dual-hatted role caused problems with C^2 and prioritization of missions. Many questions of strategy and doctrine were raised. Should the rescue mission belong to SOF? How many HH-53 should become Pave Lows? What force structure is required? Some of the issues were worked out quickly such as the decision to modify all HH-53s to MH-53 Pave Low IIIs. Others issues are still open, such as who should perform the rescue mission or should the Air Force SOF helicopter missions be given to the Army? In the meantime, three HC-130 units and one MH-60 unit were transferred to SOF along with the procurement of 24 MC-130Hs and 13 AC-130Us.[51] On 22 May 1990, AFSOC, formerly Twenty-Third Air Force shed all of its non-SOF assets and emerged as a new Air Force major command. Even though AFSOC contained all of the Air Force's SOF aircraft, it does not control all of SOF's aviation assets.

A Need for Further Cohesion

The Army through USASOC and its next command level, Integration Command, controls the 160th Special Operations Aviation Regiment (SOAR). The 160th SOAR is comprised of three active duty battalions—two at Fort Campbell and one at Hunter Army Airfield. Troops fly the MH-60, MH-47, and A/MH-6 helicopters.[52] USSOCOM Directive 10-1, *Organizations and Functions,* designates AFSOC as the USSOCOM "proponent for all air operations including fixed and rotary wing operations, COMAFSOC [commander, Air Force Special Operations Command] serves as USCINCSOC [commander in chief, United States Special Operations Command's] senior advisor on all matters pertaining to fixed and rotary wing training, doctrine, safety, equipment, and interoperability for USSOCOM AC [active component] and RC [reserve component] Forces."[53] Even though AFSOC is the air proponent to

USSOCOM, you will not find a direct link to the 160th SOAR. How can these two organizations be used to the maximum advantage?

During contingencies or exercises a joint special operations air component commander (JSOACC) can be appointed according to Joint Publication 3-05, *Doctrine for Joint Special Operations.* The JSOACC provides organization and resource allocation of limited SOF aviation assets, and coordination with conventional forces and SOF ground forces.[54] Routine daily activities to work such issues as training, doctrine, safety, and interoperability do not exist. Special meetings must be arranged between the required offices at Hurlburt Field, Fort Campbell, and MacDill Air Force Base (AFB). Routine exchange of new ideas is hampered by this process. Generally speaking, individuals who do not know each other well are not as likely to build the sound trust, respect, and confidence required in and of SOF. Despite the USSOCOM directive, AFSOC is still USSOCOM's Air Force, and not its air component. There have been recent instances that indicate the air assets of USSOCOM are not as cohesive or integrated as necessary.

The first instance is found in the Congressional Research Service report, *Special Operations Forces: An Assessment 1986–1993.* The author, John Collins, reports that the 160th "SOAR pilots and crews are helping Air Force SOF 'rewrite the book' on night flying."[55] USSOCOM has directed that joint regulations be written for flight, parachute, and scuba operations. AFSOC is the focal point for flight operations. The Army and Air Force SOF aviation have had different philosophies on flight operations ranging from who should fly helicopters to aircrew weather procedures. Some Air Force members took the earlier comment as derogatory, others brushed it off since they thought they were the best.[56] Hopefully, these attitudes just come from some good natured rivalry and will change.

An interview with Chief Warrant Officer (CWO) Vern Ward, Army Liaison to the 16th Special Operations Group (SOG), indicates there could still be some parochialism. Mr Ward runs a program called "Have Ace" which attempts to build knowledge, technical proficiency, trust, and respect between SOF ground forces and AFSOC personnel. Ninety-nine percent of the graduates rate the training as outstanding. Mr Ward received some negative feedback while trying to set the training up on a full-time basis. Antagonist's comments ranged from its a waste of time to those older Army types still think the Army should fly the Army.[57] In this case it appears the course is developing cohesion in the future leaders.

Col James Kyle in his 1990 book, *The Guts to Try,* says the following about special operations:

> It has been a decade since the Iran rescue mission failed, and yet many of the lessons we should have learned from that failure are being largely ignored. Our military leaders continue to exhibit disharmony and waffled commitment. They steadfastly cling to parochial service loyalties and shy away from coming out strongly in support of a viable Special Operations program.[58]

Colonel Kyle echoes the thoughts of former Delta Team leader, Col Charlie Beckwith that special operations must be a close-knit organization which

properly trains together, knows one anothers' strengths and weaknesses, and above all sticks together.[59] Has SOF overcome its problems since the failed Iran hostage rescue mission?

Some would say SOF has made significant improvements since 1980. Col Richard Comer, former 20th Special Operations Squadron (SOS) commander during Desert Storm, disagrees with that statement. He has described specific instances in his dealings with Army SOF. One episode focused on who should play in the destruction of the now famous Iraqi border radar sites. Originally, the mobile radar sites were within one mile of the border. The decision had been made to let the 5th Special Forces Group (SFG) infiltrate on the surface and exfiltrate by the 160th SOAR's UH-60s. AFSOF would provide rescue coverage. During further planning, the 5th SFG determined the austere terrain would require 72 hours instead of the original 60 hours prior notification to execute the operation. Gen Norman Schwarzkopf, CINC Central Command, had already told the president he needed 60 hours so 72 was considered out of the question. While an alternative solution was being considered, Iraq moved the radar sight approximately 35 miles back from the border. At this point, the 5th SFG original idea was terminated and an airborne attack by MH-53 Pave Low helicopters became the primary focus. Colonel Comer expressed doubt that the MH-53s' 50 caliber machine guns could silence the radar sites before the Iraqis could give a warning. Col Bennie D. Orrell, then 1st Special Operations Wing (SOW) deputy commander for operations (DO), suggested that the Army's AH-64 Apache helicopter would have the firepower required, but its navigational equipment was inadequate for the operation. The plan was approved when Brig Gen George A. Grey, then 1st SOW commander, briefed the plan to General Schwarzkopf.[60]

At the time of plan approval, only the MH-53s had the precision navigation systems required to lead the lethal Apaches to the attack point. Colonel Comer explains that this is when the 160th SOAR started its campaign to be included. He claims that the 160th SOAR initially attempted to discredit the Apache pilots' skills and their helicopters' reliability based on past operational experiences. By this point, both the Pave Low and Apache crews had been planning and rehearsing together for some time, resulting in a high degree of technical proficiency, trust, and friendship. Lt Col Comer describes the crews:

> They were professionals. This was the best joint helicopter flying operation I've ever seen. There was no jealousy between any one of the people over aircraft. The Apache was obviously made to shoot and destroy a target, and the Pave Low was made to take shooters to a target. . . . There was no mixing as to who had what job. The guys were looking forward to this mission going.[61]

Later, Lt Col Dick Cody, the 1/101st (Apache) commander, expressed his dislike of the tactics used by the 160th SOAR to replace the MH-53s with the 160th SOAR's UH-60s. Colonel Cody was told that the change "would be good for the Army's program" and "to join the Army team."[62] Colonel Cody told Colonel Comer that: "This kind of . . . just doesn't cut it with me. You Air

Force guys wear an American uniform, same as the Army. . . . It doesn't help anybody win."[63] Colonel Comer expressed similar thoughts.

Colonel Comer believes however that some good things did occur within SOF. Later in Operation Desert Storm, infiltration of special forces (SF) teams became the bulk of missions. Unfortunately, most of the SF teams were located an hour away by air from the nearest AF special operations base (AFSOB). But, Colonel Comer promised Chief Warrant Officer Vern Ward, then 5th SFG planner, that a crew would be given to each mission for its duration. This continuity allowed the SF teams to overcome the distrust for AFSOC that had developed previously. Mr Ward said this pairing of crews and teams was the way to do business.[64]

Is it possible that with all the advances in the SOF community, we still need to improve our cohesion among units? Some believe that familiarity (cohesion) breeds contempt and that conflict brings out better results. The author disagrees with this last statement when discussing units whose success and members' lives depend on each other. We have looked at various definitions of cohesion, identified key elements, and seen examples of the importance of cohesion. Cohesion between organizations is just as important as cohesion between individuals. But, it is through individuals that units build bilateral cohesion. AFSOC must continue to improve the cohesion within USSOCOM. This requires a knowledge of the differences in service doctrines and strategy, and a development of trust, friendship, respect, and confidence. SOF has come a long way, but there is still room for improvement. The following chapters will look at how doctrine, education, training, and war games can improve cohesion in SOF.

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Chapter 2

The Building Blocks of Cohesion

That's my point with the composite wing, to get the dynamic going that really has such a tremendous payoff in combat operations instead of meeting the guy that you are going to partner up with on the way to the fight. We ought to go to war like a team that has worked together on the practice field to where they can call the audibles at the line of scrimmage

—Gen Merrill A. McPeak

Composite units and the tailoring of forces within Air Force special operations forces (AFSOF) are nothing new. A prime example is the 16th Special Operations Wing (16th SOW) at Hurlburt Field, Florida. The 16th SOW, formerly the 1st SOW before October 1993, has been a composite wing for more than 15 years. It has three different C-130 missions (with far greater differences than between F-15s and F-16s) and two different types of helicopters. Also at Hurlburt Field is the 720th Special Tactics Group (STGP) which includes special operations combat control and pararescue forces.[1]

Although AFSOF units have standard unit type codes like every other Air Force unit, they rarely use them to execute contingencies or training. Instead, SOF routinely tailors its forces to match the threat. Operation Just Cause in Panama is a good example of where SOF planners and operators had preplanned and rehearsed their participation, so SOF was able to identify and tailor the forces required for a successful operation.[2]

It could be said that SOF has been into adaptive joint force packaging for quite some time. Personnel from the 24th Special Tactics Squadron (STS) were "part of the United Nations Operations in Somalia II/Task Force Ranger, joint-service team sent to capture militia leaders believed to be responsible for attacks on U.S. and U.N. troops."[3] The STS personnel provided the army contingent with crucial ground-to-air communications to helicopter gunships and medical expertise during an intense 18-hour battle on 3–4 October 1993. The nature of the battle and the 24th STS airmen's performances resulted in award of the Air Force Cross, two Silver Stars for gallantry, and several Bronze Stars.[4]

Why were the 24th STS personnel able to function so well with the other assets of Task Force Ranger? Why has SOF been using composite units and tailoring its deployments for more than two decades? The answers are attributed to SOF's development of doctrine which drives education and training. This chapter explores why doctrine is important and how it is developed, examines how education relates to training and doctrine, analyzes how train-

ing brings life to doctrine and education, and shows the importance of doctrine, training, and education to cohesion.

Doctrine

The organization of men and machines into military forces does not necessarily mean that they are equipped and trained for the accomplishment, if necessary, of decisive action in war. For this, the discipline of a coherent body of thought appears to be indispensable.

—Eugene Emme

Most military people would agree with Emme and say the cornerstone of this coherent body of thought is doctrine. This section defines doctrine and its subcomponents, explains its importance, and shows how various organizations develop doctrine.

Definitions

According to Joint Publication (Pub) 1-02, *Department of Defense Dictionary of Military and Associated Terms, doctrine* is the "fundamental principles by which the military forces or elements thereof guide their actions in support of national objectives. It is authoritative but requires judgment in application."[5] The Army emphasizes the time tested nature of these principles.[6] The Air Force adds "it is the starting point for solving contemporary problems."[7] Air Force doctrine provides such principles as objective, mass, offensive, surprise, and so forth.[8] Does doctrine cover all levels of a conflict?

Air Force Policy Directive (AFPD) 10-13, *Aerospace Doctrine,* describes three levels of doctrine which correspond to the three levels of conflict currently in use. Basic doctrine is broad, enduring guidance (principles and concepts) that unifies the team. Operational doctrine involves principles and ideas that are used in campaigns and major operations. It proposes ways to solve military problems and attain objectives. Tactical doctrine is concerned with specific alternatives, their advantages and disadvantages, and factors that determine their effectiveness.[9] AFPD 10-13 also breaks tactical doctrine into even smaller parts. Further, Joint Pub 1-02 says tactics is where doctrine is actually implemented.

Doctrine is implemented through the actions and methods of tactics, techniques, and procedures (TTP). Tactics is concerned with the employment of units in combat and their arrangement and maneuver in relationship to each other and the enemy to maximize their effectiveness.[10] To achieve the principle of objective (control of an airfield), the tactic of an airfield seizure might be considered. Techniques are the details of tactics. They are the basic methods used to carry out a tactical task.[11] Airfield seizure techniques include a helicopter or C-130 assault, parachute assault, or over land infiltration. Procedures are the lowest level and standardize the performance of critical or

recurring actions.[12] A minimum drop altitude for a particular type of parachute assault would be considered a procedure.

The definitions described above are universal within the Department of Defense with minor differences. When discussing more than one service, the terms *joint* or *multiservice* doctrine, and *joint TTP* (JTTP) are used. In the SOF community, joint doctrine and JTTP are very important due to the inherent jointness of almost all SOF operations.

Importance

SOF's capabilities are primarily a function of individual and small joint unit operations tailored to meet a specific threat.[13] The success of these small units is based on teamwork which is built through trust, cooperation, and delegation.[14] This unity of teamwork and cohesion are critical building blocks in SOF doctrine. The process for building teamwork begins with sound doctrine.

No one can learn all the things required to maximize their accomplishments in life through trial and error, especially in relationship to military operations.[15] Military doctrine provides thoughts on warfare from the distilled insights and wisdom of many of the world's renowned thinkers. These insights originate from past experiences which are analyzed and theorized, written about and taught, and finally reevaluated during new experiences. New technologies, cultural changes, and changes in threat can cause parts of doctrine to change or perhaps remain the same. Air Force Manual (AFM) 1-1 says, "doctrine should be alive—growing, evolving, and maturing."[16]

AFSOF doctrine before the Iran hostage rescue attempt might have existed, but it definitely was not growing, evolving, or maturing. For example, AFM 2-5, *Tactical Air Operations—Special Air Warfare,* was published on 10 March 1967 and rescinded on 1 April 1988.[17] Since then, SOF has identified several important characteristics of special operations (SO) and codified them into Joint Pub 3-05, *Doctrine for Joint Special Operations* and AFM 2-10, *Special Operations.* Some ways that SO differ from conventional operations are that SO are usually offensive with high physical and political risk, heavily politico-military in nature, frequently covert or clandestine, often conducted in hostile or politically sensitive areas, and usually involve specially trained personnel supported by detailed intelligence and thorough planning.[18] Where does sound doctrine come from?

Some say that doctrine comes from the service secretaries or theater commanders in chief (CINC). But this is too simple an answer even though such individuals might have the final review and approval authority. Doctrine is derived from various individuals critically discussing its advantages and disadvantages in past, current, and future military operations. These discussions create further debate and investigation through such things as war games and exercises. Many times a flaw in a new proposed doctrine is uncovered and in other rare instances a new insight is found. Gen Frederick M. Franks, Jr., commander of US Army Training and Doctrine Command (TRADOC), says

we should expect increased reassessments of the services' roles and missions since the US is "no longer a forward-based, fixed-threat, alliance-driven deterrent force, but a continentally positioned, capability-based power-projection force."[19] How do the services create and modify doctrine?

Service Roots

Until recently, only the Army had a central organization, TRADOC (established in 1973), responsible for exploring and developing doctrine, and then implementing it into service training. TRADOC is the focal point within the Army for coordinating and standardizing doctrine. This does not alleviate the various branches of the Army from exploring their own new ideas whether it be in a branch school, professional military education school, or exercise such as the Louisiana Maneuvers. Further, TRADOC is responsible for integration of joint concepts within the Army.

The Navy, on the other hand, has not had a central agency for doctrine until it opened the Naval Doctrine Command (NDC) in March 1993. Rear Adm Frederick L. Lewis, commander of the NDC, says "the Navy doctrine development process at all levels was a fragmented, bottom-up, fleet driven approach."[20] Deficiencies in doctrine were usually identified, reviewed, evaluated, and published by such organizations as the Naval Strike Warfare Center, Naval War College, and so forth. This approach led to some large disagreements between the fleets in the correct use of doctrine. The NDC is the primary authority for development of naval concepts and doctrine; coordinates Navy unique doctrine, Navy and Marine integration, and joint or combined doctrine; and incorporates doctrine into Navy training and education programs. The NDC will not replace the Marine Corps Combat Development Command Doctrine Division at Quantico which has been active since 1920.[21]

The Air Force experience was similar to the Navy in organizational history. In July 1993, the Air Force Doctrine Center (AFDC) was established and made responsible for development of all Air Force, joint, and combined doctrine.[22] Before the AFDC, the Air Staff coordinated and published Air Force doctrine. This process relied heavily on inputs from the major commands which might or might not coincide with each other.[23] The College of Aerospace Doctrine, Research, and Education (CADRE), Maxwell AFB, Alabama, had been and will continue to be responsible for researching and developing doctrinal concepts for approval by the Air Staff.[24] A classic example is the latest revision to AFM 1-1, *Basic Aerospace Doctrine of the United States Air Force,* which was written and edited by the CADRE staff with the Air Staff Doctrine Division as the office of primary responsibility (OPR).[25] CADRE also has been a prime player in educating airmen through such activities as war gaming, article publications, and administering courses on combat employment. Air University, CADRE's parent organization, is responsible for doctrine education within the Air Force through such programs as the service's three resident and correspondence professional military education (PME) schools for commissioned officers, and the United States Air Force (USAF) Senior NCO

Academy for enlisted personnel.[26] Joint doctrine is also taught within these schools in the Air Force and in similar schools in the other services.

Joint Roots

There was little emphasis on joint doctrine until 1986. Before that time, the services relied on understanding the operations and needs of the other services rather than making joint policy. This limited education process began as early as 1943 with the Army-Navy Staff College and then with the National War College in 1946. In January 1976, the National Defense University was established and acted as an umbrella headquarters over the joint schools. Col Robert A. Doughty, head of the Department of History at the US Military Academy, explains that the mere education process was not enough to cause military forces to function together.

Congress, with the passage of the Goldwater-Nichols legislation of 1986, made the chairman of the Joint Chiefs of Staff responsible for establishing joint doctrine, training, and education. In 1987, the joint staff was expanded to include a J-7 (Operational Plans and Interoperability Directorate) with a branch for joint doctrine and the Joint Doctrine Center (JDC) was established at Norfolk, Virginia. Initially, the JDC only evaluated doctrine (no writing), and ensured copies were properly distributed. The actual requirement to write joint doctrine was superimposed over existing institutions such as the services, the Joint Staff, and the unified commands.[27] On 1 July 1993, the Joint Warfighting Center (JWFC) was administratively established by combining the JDC, the Joint Warfare Center, and billets from the Joint Staff together. The JWFC will be fully operational by 1 October 1994 and its role in doctrine development should be clear before then.[28] Meanwhile, USSOCOM is tasked as the lead agent for Joint Pub 3-05, *Doctrine for Joint Special Operations.*[29]

SOF Roots

USSOCOM's Directorate of Plans, Policy, Doctrine, Simulations and Analysis (SOJ5) uses the Policy, Strategy, and Doctrine Division (SOJ5-O) to coordinate and write joint doctrine. They, as do other lead agents, must coordinate with other CINCs, parent services, components, and various staffs which can take some time. Working groups are routinely brought together to work difficult issues.[30]

Integration of new terms and philosophies were challenging for those who had a good grasp of doctrine. Comments made by AFSOC personnel during the review process of the draft Air Force Doctrine Document 35 (AFDD 35), *Special Operations,* the future replacement for AFM 2-10, highlighted this point. One such comment involved the use of the acronym JRC which stands for joint reconnaissance center and not the old familiar term joint rescue center.[31] This problem can be exacerbated in the joint environment especially with JTTP.

Within USSOCOM, establishing JTTP has been an important function. Three years ago, if an AFSOC C-130 crew was to take a parachutist from each of the three service components on a high altitude low opening (HALO) airdrop, the parachutists and crew could expect three different procedures. This led to obvious problems especially when the three parachutists were to conduct operations together. Since then, USSOCOM has directed the various components to act as proponents for such things as parachute, maritime, and most recently, air operations.[32]

When working groups have formed to resolve issues, they have found some acute differences in perspective between the components. These differences usually were caused either by a particular belief in operational and tactical doctrine, or a lack of knowledge of the other components' capabilities and limitations.[33] For example, AFSOF planners foresaw the need to have helicopters with terrain-following (TF) radar much earlier than the Army. Some experts might conclude it came from the after action report of the Iranian hostage rescue attempt while others agree it came from lessons learned in training. Both reasons deal with the underlying problem of how to handle bad weather and accomplish the mission. Is this a doctrinal issue? It is probably a tactical doctrinal issue that deals with both a tactic and a technique. The requirement to perform an all-weather infiltration is a tactic, the need for TF radar would be a technique, and how to actually fly using the TF radar would be a procedure.

It does not matter exactly how we define the above example. The point is that basic and operational doctrine establish the guidelines and the JTTP attempts to fill the gaps. Understanding the relationship between the three is important in order to know what the individual airman, soldier, or sailor's role is and how the individual contributes to the joint SOF mission. Education can help clarify these relationships.

Education

If you know your enemy and know yourself, you need not fear the results of a hundred battles.

—Sun Tzu

One aspect of knowing yourself comes through education. Joint Pub 1-02 defines *military education* as "the systematic instruction of individuals in subjects which will enhance their knowledge of the science and art of war."[34] Lt Col Lawrence O. Short in his report, *Air University in War: The Role of Education in Wartime,* says "education and training seem virtually interchangeable [however] they are closely related but distinct."[35] Further, Colonel Short says training's emphasis is on precise, efficient hands-on methods whereas education's emphasis is to enrich a person's mental understanding of facts, values, principles and so forth. This enriched education is what allows an individual to evaluate and formulate new ideas, especially under pressure.

The Air Force uses two other terms which also are included in education. First, *professional military education* (PME) is concerned with education directed at the general development in such formal environments as schools, academies, and colleges. Second, *professional continuing education* (PCE) is concerned with the specific functional areas and can be conducted in formal or informal environments. Informal environments include such things as written works, symposia, and colloquia.[36] This section explores SOF educational opportunities available in formal and informal environments.

SOF Formal Education

The individual SOF service components have had some form of formal education system in place for quite sometime. Naval Special Warfare personnel receive training at the Naval Special Warfare Center (NSWC) in Coronado, California. The NSWC, for the most part, is concerned with training versus education. However, the NSWC is developing educational courses and meanwhile relies on conventional naval or other service SO courses, especially the USAF Special Operations School.[37]

Since 1952, Army special operations forces (ARSOF) have had their training and education roots at Fort Bragg, North Carolina. Currently, ARSOF uses the John F. Kennedy Special Warfare Center and School (JFK SWCS) to conduct both training and education from the perspective given earlier.[38] In addition, the JFK SWCS develops SOF doctrine and new equipment. Students from all the services and foreign countries can participate in more than 70 courses which range from SF military occupational specialty (MOS) qualification courses to graduate level classes in international studies.[39] The Special Operations Staff Officer Course (SOSOC) has a particularly interesting history.

The SOSOC was designed to build future leaders capable of expressing ideas and advice about ARSOF issues based on sound doctrine in a comprehensible and attractive way to superiors and other SOF components, especially at the highest levels. The ARSOF officer corps has always produced highly trained, and technically and tactically proficient individuals. However, the officer corps was deemed to need further improvement in the doctrinal and the staff arena.

The SOSOC was broken down into three phases—phase one consisted of national strategic-policy formulation; phase two consisted of establishment of United States Special Operations Command (USSOCOM), its operational concepts, and the service components' roles; and phase three consisted of intensive research into ARSOF and joint doctrine. Students were to be taught in seminars of 10 or less and each seminar was to have a dedicated mentor.[40] Research indicates the course has not been taught in more than three years, and information on its length or curriculum is outdated. A new Special Operations Staff Course is scheduled to begin in 1995 lasting approximately seven weeks. JFK SWCS officials indicate that the 10-day Joint Special Operations

Staff Officer Course (JSOSOC) taught at the USAF Special Operations School (SOS) is too compressed.[41]

AFSOF has conducted its formal education through the USAF SOS at Hurlburt Field, Florida since 1967. The SOS educates personnel in the missions, functions, and environment of special operations activities through 15 courses presented 72 times per year. Courses range from regional affairs, international terrorism, revolutionary warfare, foreign internal defense, and special operations workshop and staff course.[42] AFSOC aircrew and flight training is separate from the SOS. Aircrew basic mission qualification primarily takes place at Kirtland AFB, New Mexico through Air Education and Training Command (AETC) or at Hurlburt Field.

Over half of the SOS courses have some strategy or doctrine involvement. The courses range in length from three to 10 days. Some courses such as the Introduction to Special Operations Course (ISOC) are at the beginner's stage, and others such as the JSOSOC are taught at the more advanced level.[43] AFSOC has recently included the ISOC into the aircrew basic mission qualification course. This is designed to teach personnel as soon as possible about their mission and how they fit into joint SOF operations.[44] AFSOC has launched into new territory with a professional development program nicknamed Commando Edge.

Commando Edge is based on the concept that *e*ducation plus personal *de*velopment and *g*rowth will result in *e*nhanced AFSOC professionals capable of filling positions of responsibility within the command, service, and joint community. Individuals will have to meet such various requirements as attending formal military courses and actual field experience in both a service and joint environment at certain stages throughout their careers.[45] This plan reflects the view of Gen John R. Galvin, USA, former CINC US European Command, "that strategists do not spring full blown from virgin soil; they must, in fact, be developed."[46]

General Galvin further states that three elements should be used to develop strategists. In order of importance the elements are self-development, in-unit education, and formal schooling. Formal schooling was to be the capstone on the education process. It allows the students to explore the full range of information and examine current policy. In the process, students would sharpen their oral and written skills to implement future changes.[47] This is probably the biggest problem with the SOS courses. The length and the introductory nature of most of the courses do not allow time to further develop these communication skills and fully critique current policies.

Some of Commando Edge's requirements to participate in joint exercises are important to General Galvin's in-unit education theory. Individuals must know what the manual says, but the school of hard knocks can teach as much if not more of how things actually are. Further, General Galvin believes that many units and individuals get caught up in the "grindstone" syndrome of focusing excessively on day-to-day operations. The only way to overcome this syndrome is to make time for reflective activities, whether they be listening to guest lecturers, discussing doctrine, or critiquing professional readings.[48] Cur-

rently, these type activities are not part of the Commando Edge program and would be considered informal tools.

SOF Informal Education

General Galvin believes that history has shown that highly motivated self-development is the most important element to developing a strategist. The Army and Marine Corps have professional reading lists for their personnel. Is this a formal tool or a way to give individuals guidance for self-development? It depends on the way it is approached. If an individual must read a certain book and complete a book review in a certain time, the process is formal. On the other hand, if there is a suggested reading list of 20 books with no other requirement, the process is informal.

Capt Tom Sexton, USAF exchange pilot with the 160th Special Operations Aviation Regiment (SOAR), reports that 160th personnel are highly self-motivated. During deployments, he encounters personnel discussing books on various military subjects because they want to.[49] Do similar programs exist in the AFSOF community? One officer reports that his former commander, Lt Col William ("Slim") Conner, routinely reinforced the squadron's mission through the study of doctrine. The officer felt that this created a unique and desired atmosphere in the unit.[50] For the most part, those midcareer officers interviewed felt that there is a lack of mechanisms within the units to build professional military development. Further, most people felt only the most critical aircrew TTP were routinely discussed.

The informal structure is further complicated by joint issues. Just as with the training issues discussed earlier, location of USSOCOM components apart from each other prevents the natural day-to-day interface. Again, interface is crucial for building cohesion between the units and USSOCOM is working at a disadvantage. Recently, CWO Michael Durant, the Task Force Ranger pilot held prisoner, went to Hurlburt Field and briefed members of the 16th SOW on his experiences in Somalia. Capt Clay Hutmacher, USA exchange pilot with AFSOC's 55th Special Operations Squadron, claims this is an excellent example of the necessary informal joint education. He goes on to say that this is how AFSOF and ARSOF can learn about and discuss such issues as why SOF aviation plays mostly a support role, why some AFSOF training restrictions are not similar to AFSOF policy on how it is going to fight a war and so forth.[51] Should these informal tools stay informal?

Some of the tools, such as unit unique requirements, could remain informal. However, many joint issues are probably harder to keep informal and produce a successful program. USSOCOM's Joint Special Operations School Integration Committee (JSOSIC) was formed to achieve economies of scale at the joint level without disrupting service schools. The JSOSIC's focus is on curriculum review and institutional training versus unit training.[52] The JSOSIC has been looking at ways to combine the SOF service component schools into a SOF university. The idea is to address SOF specific issues at a high, joint level, not to duplicate the service's PME schools. As this paper is being writ-

ten, the JSOSIC is evolving into the Joint Special Operations Forces Institute (JSOFI). The JSOFI could become responsible for the next issue we explore depending on the evolutionary process.

Can major command magazines such as USASOC's *Special Warfare,* NAVSPECWARCOM's *Full Mission Profile* or AFSOC's *Night Flyer* help improve joint education and cohesion? Obviously, the magazines cater to their personnel. However, *Special Warfare* has included articles on such areas as the USAF SOS and the NSWC. Review of *Special Warfare, Marine Corps Gazette, Air Force Magazine,* and *Night Flyer* demonstrate that joint education can occur through service magazines. Tools such as editorials, book reviews, historical articles, tactics problems, and so forth provide formal and informal means to express oneself and an informal way for others to reevaluate their thoughts.

Whether SOF personnel are formally or informally educated on doctrine and JTTP, this education will affect training. The development of JTTP is what allows the individual teams to conduct meaningful training. If subtle differences exist in development of doctrine, these differences will also affect training.

Training

USSOCOM Directive 350-25 (USSOCOM D 350-25), *Training,* states that training objectives should develop bold, capable leaders with initiative; highly skilled and disciplined individuals; small units or crews well-versed in technical and tactical skills; well-prepared commanders and staff; programs that focus on mission essential and battle-focused training; and programs that are realistic.[53] These ideas come from common sense and lessons learned. To accomplish them all, one step must come first.

The mission essential task list (METL) or joint METL (JMETL) is the first step in conducting training. All commanders must evaluate possible tasks based on doctrine and strategy. The commander then focuses on those tasks that are essential to his part of the battle. Some of these tasks may stem from an unique need of only one theater. These battle-focused tasks allow commanders to concentrate their effort on the most important, basic items. This process recognizes a limited amount of time and resources exist to accomplish all training tasks. As the process continues down the organizational structure, METLs become more specific allowing individual units and ultimately individual personnel to train only to the most vital tasks.[54] For example, a USSOCOM JMETL requires USSOCOM to provide trained SO forces to US combatant commanders, and an individual unit's METLs might require crews trained in infiltration through night vision goggle (NVG) landings and static line airdrop operations.[55]

SOF Training Tools

There are several tools to conduct SOF training. USSOCOM uses its Major Coordinated Exercise Program (MCEP) to manage joint training and force assessment in the theater operational environment. MCEPs are also used to

improve interoperability between SOF and conventional forces.[56] These exercises allow SOF to train at all levels from individuals up to a joint special operations task force (JSOTF) organization. Aircrew members say these type exercises do not normally allow the aircrews and user time to learn much about each other and explore new ideas. The exercise time lines usually drive the next event and do not allow time to debrief, consult, discuss, and so forth. Joint readiness training (JRT) seems to provide some time to talk even though not much time to explore new ideas.[57] The success of Operation Just Cause in Panama has been contributed to JRT.[58] Maj Mark Transue, an AC-130 pilot during Operation Just Cause, says that JRT contributed to the critical and successful employment of the new AC-130 "Top Hat" tactic during the operation.[59]

At a lower level, individual wings and battalions conduct direct coordination with each other to arrange what is commonly referred to as bilateral training even though it is between two services. USSOCOM D 350-25 highly encourages SOF units to maximize bilateral training.[60] Some bilateral training is conducted from the units' home stations. For example, the 16th Special Operations Group (SOG) flies a MC-130 from Hurlburt Field to Lawson Army Air Field (AAF) to pick up parachutists for airdrops at Fort Benning. The aircrew and parachutists only coordinate what is required for that particular airdrop. Face-to-face time is important for the success of the mission, but this is not the type of interaction that builds knowledge and identity leading to trust. Capt Tom Sexton, an AFSOC helicopter pilot assigned to Delta Company of the 1/160th SOAR, says frequent interface with the customer improves "mission attitude" and "improved user assessment of the crew" which improves cohesion.[61]

The Have Ace program (discussed in chapter 1) at the 16th SOG, Hurlburt Field, is an attempt to improve cohesion between the air assets and users. Normally, an A Team or a sea-air-land (SEAL) platoon would deploy to Hurlburt Field for two weeks. Training usually begins with unit orientation, followed by such familiarization training as calls for fire or fast rope, and finishes with several days of joint mission planning and situational training exercises. Throughout the process, JMETLs are used as the guide. During joint mission planning, participants are encouraged to discuss and explore JTTP. The situational training is designed to combine all areas together while allowing opportunities to try new ideas.[62] Have Ace uses these elements to build the participants' knowledge, share training, work out problems, and build trust.

Unfortunately, the program has not achieved its full potential. Since Have Ace's conception more than 49 A Teams, 26 SEAL platoons, and 18 Ranger units have participated in training. At this rate, it would take over 15 years to get every A Team through once! This problem is the result of several deficiencies. First, there are not enough air assets to conduct all the training desired. Many real-world taskings, major exercises, long-term maintenance and so forth reduce the number of aircraft available to train with at this level. The teams therefore have to come to Hurlburt Field, where more than one aircrew

can use the aircraft in a day. The Eglin AFB range complex is highly utilized and AFSOF priority is only about 350 out of 700 possible users. The small size of ranges limits some of the realism desired such as AC-130 live fire missions. If the range problems could be overcome, the Have Ace program would require more personnel to manage the significantly desired increase in day-to-day activities.[63] A recent aircrew critique of the Have Ace program indicates training has become more scripted like a JRT.[64] The bottom line is that effective bilateral training does not occur often enough.

Obviously, real-world contingencies could also provide spin-off opportunities to train. The standard isolation and planning procedures would normally constitute the last chance to prepare for a possible mission. The Desert Shield buildup and the Bosnia situation are good examples of where the different groups have extra time to train while awaiting eventual real employment events. However, these are exceptions and cannot be counted on. Teams and aircrews must already be prepared when taskings are received. Can some of this knowledge gathering, idea exploring, and trust building be done some other way? The Special Operations Aircrew Interfly Program (SOAIP) provides another possibility.

The SOAIP was designed to bring aircrews together to discuss and demonstrate concepts on SOF TTP. Some people might compare the SOAIP to a fancy tactics conference. A conference is limited to discussions, but the SOAIP provides aircrews an opportunity to closely experience some of the TTP through actual flying. The most recent SOAIP was held at Kirtland AFB in 1988 and involved AFSOF and Royal Air Force SOF aircrews from the United Kingdom. AFSOC planned to include ARSOF aviation in future SOAIPs and possibly include Army Special Forces (SF) and Navy sea-air-land team personnel in later SOAIPs. Both fixed-wing and rotary-wing aircrew members learned a lot and many issues were taken back to Twenty-Third Air Force to be staffed. However, an aircrew critique of the last SOAIP said it had turned into a dog and pony show for upper echelon observers (VIP). Many crew members felt too much time was spent on long elaborate missions for VIPs instead of working short to the point missions for maximum exchange of ideas.[65] Another way to discuss tactics is through classroom instructions.

Currently, AFSOF crews attend USAF training at such places as the Combat Aircrew Training School (CATS) at Nellis AFB and the Advance Airlift Tactics Training Course (AATTC) at Saint Joseph, Missouri. This training is excellent for learning about threats and how to defeat them. But, neither CATS nor AATTC interface with our Army or Navy users. Unit level training is the core for individual training. This training also lacks routine interface. There is no school or course allowing AFSOF to interface and grow with ARSOF and NAVSOF personnel in this technical training way.

Possible Training Problems

The unit level is the most likely place were problems can begin to occur. Let us examine a potential problem associated with a C-130 static line personnel

airdrop. One source exaggerates this problem—"The fifteen pound training bundle even takes the place of the most capable paratrooper."[66] A pilot and a navigator may be fully qualified and never have dropped an actual parachutist. Even though this situation usually does not last long, it may be quite some time between air drops of actual parachutists. A loadmaster must have initial and recurring training with an actual parachutist to be qualified. Aircrews are taught techniques that can help reduce the enemy's threat. These techniques can make the last minutes of flight before the airdrop release especially difficult for the parachutist. Feedback before, during, and after the flight is crucial. An aircrew with little recent experience with actual parachutists may be too aggressive with aircraft maneuvers. This aggressiveness may prevent the parachutist from performing all safety checks in a timely manner. The results could range from a successful airdrop to a fatality. To explore how SOF assets overcome these type problems, we need to first consider a few terms.

Military training is instruction that enhances an individual's capacity to perform specific military tasks.[67] It may be done individually or in a group. Units may train unilaterally (their unit only), bilaterally (with another unit), multilaterally (with more than two units), or jointly (more than one service). Training may be done through such tools as classes, computer tutorials, simulators, hands-on actual equipment, war games, and exercises.

USSOCOM D 350-25 states that components will train in a joint environment when required.[68] There is no minimum number of times that a certain event must be conducted jointly. Using the earlier airdrop example, the situation can also be reversed for the parachutists. Parachutists could conduct most if not all of their training using non-SOF assets such as an Air Combat Command (ACC) C-130 or a forestry service C-47.[69] Recalling that there is a shortage of SOF aviation assets, could an organizational change help?

Collocation

Both ARSOF and AFSOF pilots who have been collocated with the users believe cohesion is inherently fostered in this arrangement.[70] Currently, the 353d SOG is the only AFSOC group collocated with their users. On the other hand, the 160th SOAR has all of its assets collocated at two different bases.[71] AFSOC's only stateside operational group is located at Hurlburt Field and the nearest operational user is more than 200 miles away. This still leaves five of the largest enclaves of Army SF and Rangers, and Navy SEAL teams without collocated SOF air assets. If AFSOC stateside assets were to collocate with their users, this would result in small numbers of aircraft and personnel at a location further reducing the economy of scale that aviation assets face on a day-to-day basis. However, collocation would significantly increase the various training opportunities discussed earlier in this section thus increasing cohesion. Collocation would also add to both the formal and informal educational opportunities.

Summary

Understanding and using doctrine is essential to building cohesion. In this chapter, we explored General McPeak's idea of working closely with those with whom we would go into battle. SOF doctrine tells us that this close cooperation is crucial. To understand how doctrine is written, we first described its components. Second, the importance of sound doctrine was discussed along with the fact that it must be alive and evolving. We saw the effect that stagnant doctrine had on the pre-1980 SOF community and how it has changed. Third, we took a cursory look at how doctrine is currently made within the services. This highlighted the emphasis on joint doctrine leading the way for service specific efforts. However, doctrine cannot be appreciated without education.

SOF doctrine also requires individuals to demonstrate ingenuity and to react decisively. To accomplish these requirements, individuals must know as much as possible about their jobs and those of the components they work with. This education process should allow individuals to gain mutual respect through understanding and reevaluation of one another's beliefs. We examined how the SOF service components conduct formal training and education at their schools. This examination led us to General Galvin's belief that a leader must be trained to artfully express himself, something that is lacking in the SOF formal education process. General Galvin goes on to say that this overall professional development occurs over a significant amount of time. AFSOC has developed the Commando Edge program to address the formal school and field experience issues. However, General Galvin's grindstone syndrome of overly focusing on the day-to-day operational commitments appears to be alive and well within AFSOF. The best way to overcome this syndrome would be through informal education, however it may take formal guidance. No matter how well education teaches and develops doctrine training is what brings doctrine to life.

Doctrine provides the guidance and direction to accomplish training of individuals and units to achieve a common goal. Within SOF, this means training with small units in a joint environment. The joint training will build trust and confidence or bring out areas that need to be improved to increase cohesion. Mission essential tasks should create battle-focused training. This training should be conducted as realistically as possible. We then explored advantages and disadvantages of tools used in SOF training. Deficiencies were found in routine joint training due to a lack of aviation assets. Last, the advantages of collocation of units building cohesion were addressed. However, conditions do not appear favorable for collocation.

Some leaders would argue that one or another of these areas is most important and is a prerequisite for the others. What is important is that "doctrine provides the basis for harmonious actions and mutual understanding" and is essential for building cohesion.[72] Training and education allow individuals and units to build the trust and cooperation required for cohesion. With the

building blocks of cohesion laid, chapter 3 will explore war games as a device for building cohesion.

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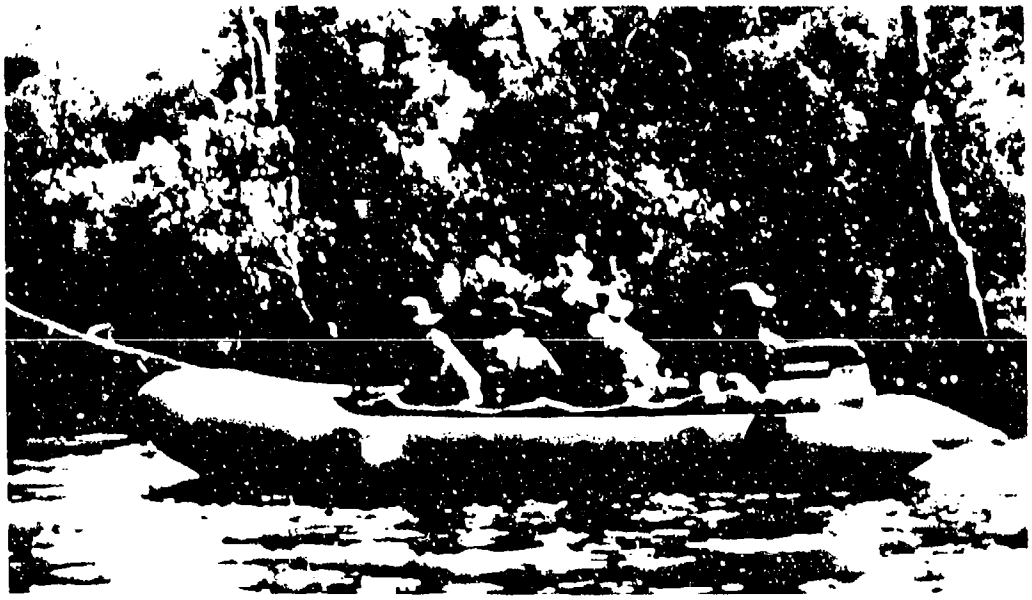
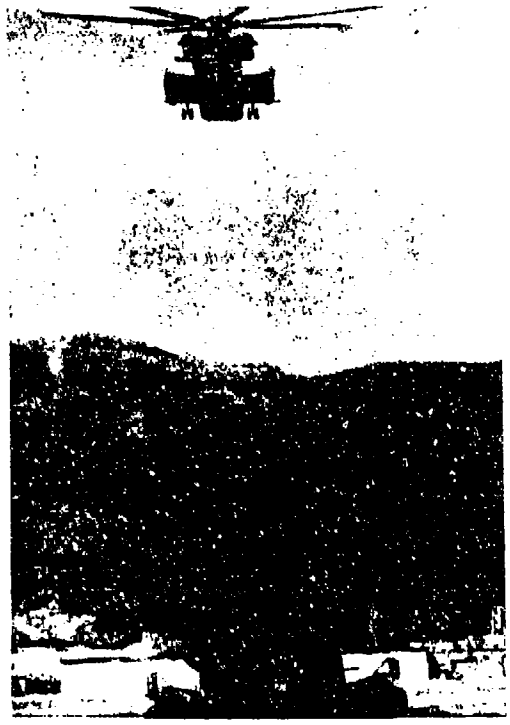
PHOTO SECTION

Obviously a 15-pound training bundle is not the same as a combat-equipped parachutist.

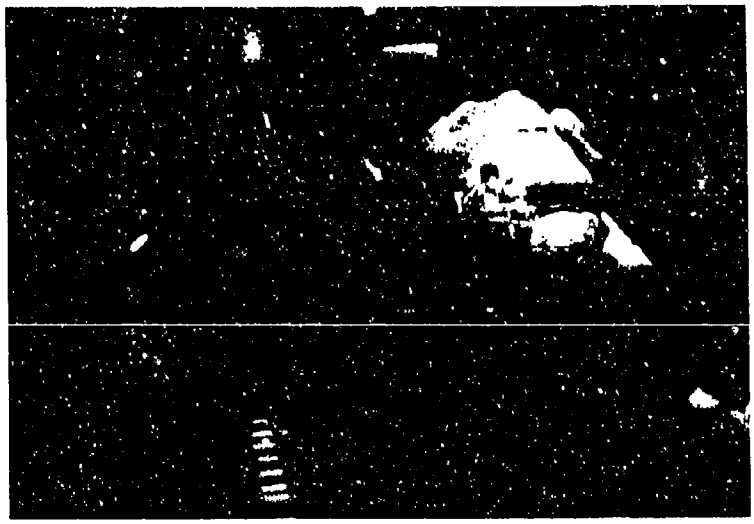
The use of such aircraft as this Basler Turbo 67 (a modified C-47) provides bona fide training for parachutists. But, this type of training does little for interunit cohesion.



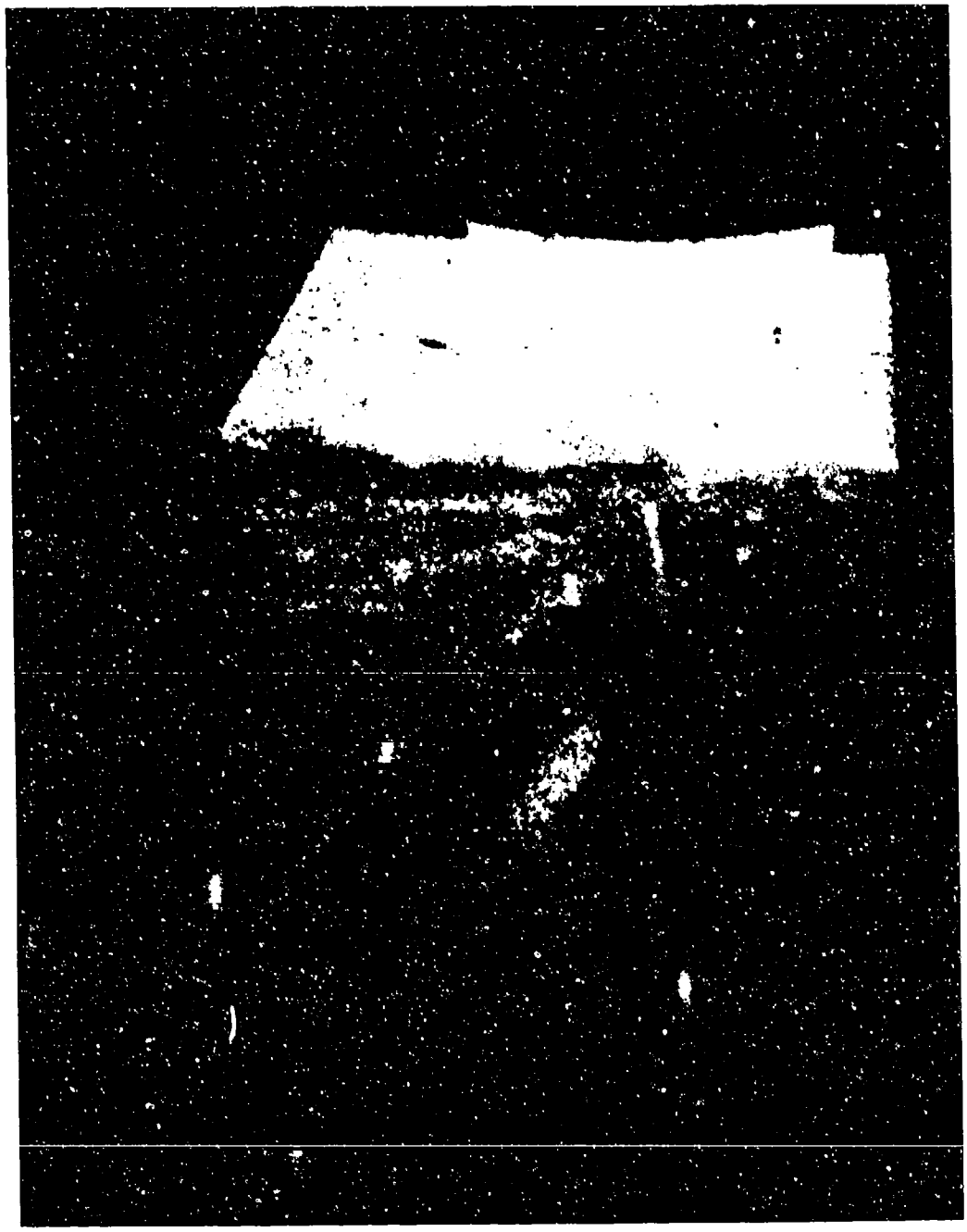
Can special operations aviation support riverine operations? In today's environment, it is too late to ask the question after being tasked.



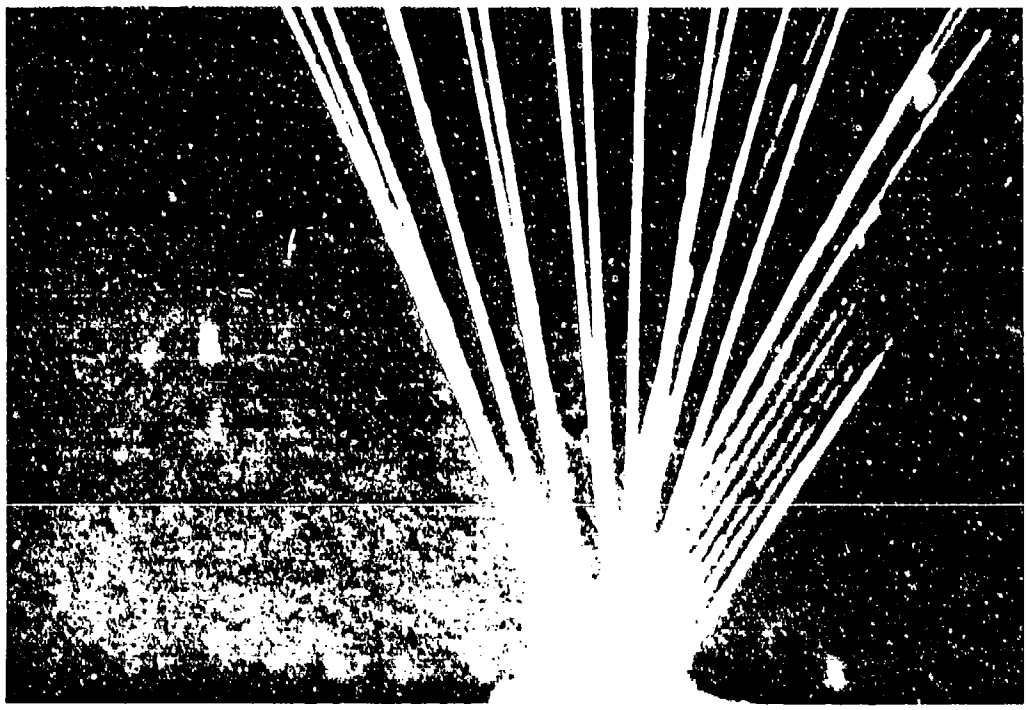
Tactical doctrine requires helicopter infiltrations. Knowing the capabilities and limitations of aviation assets can help make sound decisions on which techniques to use, such as this MH-53J Pave Low III formation.



Special operations doctrine requires aircrews and customers to train jointly in small teams with conditions as close to real as possible as depicted in these low-light photos. MH-53J Pave Low III crew and customer preparing for combat rubber raiding craft operations.



A MC-130E Talon I infiltrating the customer using night vision devices.



The awesome firepower of an AC-130H demonstrates the crew's need to build trust among the customers. This must be done through technical training (i.e., proper radio procedures) and through actual live fire exercises with the customer.

Cohesion requires trusting each other and anticipating each other's needs. This could be as simple as understanding and anticipating the customers' problems associated with fast roping out of a MH-60G or the problems associated with traveling with a full combat load of equipment.

Chapter 3

War Gaming and Cohesion

Together with other in-theater forces . . . the joint force is greater than the sum of its parts.

—Brig Gen Joseph K. Kellogg, Jr., USA

General Kellogg believes that use of special operations forces (SOF) is synergistic. In other words, the use of SOF has a multiplying effect on the cumulative affect of military forces. To maximize this, the staffs of both the joint force commander (JFC) and the joint force special operations component commander (JFSOCC)—a coequal to a theater service component or a subunified command—must know the capabilities and limitations of SOF as they integrate operations. Future contingency planning has significantly changed since the end of the cold war. We no longer face an obvious worst case Soviet scenario to guide planning. However, the concept of fighting two major regional conflicts is being used to determine the next scenario.[1] In the nineties alone, the US, without any warning, has been tasked to support such operations as the Kurdish and Somalia relief efforts, and the Bosnian peace efforts.[2] Not only must contingency operations staffs understand SOF's capabilities (and perhaps more importantly—limitations), but so must every individual special operator. Special operators must know as much for two main reasons. First, some individual operators usually augment contingency staffs. Second, individual operators are truly responsible for the ultimate outcomes in the field. In times of reduced budgets and unannounced contingencies, SOF must learn as much as possible about itself to continue building the needed cohesion to meet the challenges of the future. One possible answer is in war gaming. This chapter looks at the history of war games; defines and contrasts simulations, war games, and exercises; highlights advantages and disadvantages; looks at services' current use; explores purposes; and shows SOF limited war-gaming usage.

History of War Gaming

Though no one knows exactly when war gaming began, the modern development of war gaming is attributed to the Germans. In the early nineteenth century, a Prussian military official Herr von Reisswitz and his son, an artillery officer, changed war games from chessboard-based affairs to ones using terrain models and large-scale maps. Prussian Chief of Staff Karl von Muf-

fling, impressed by von Reisswitz's advancements, proclaimed, "It's not a game at all, it's training for war. I shall recommend it most emphatically to the whole army!"[3] By the late nineteenth century, war gaming umpires were added to settle disputes. However, Prussian reformists thought game play should be based on proven tactical experiences in a free play atmosphere. The German army found war games extremely useful during the reduction-in-force and budgetary constraints following World War I.[4]

Other countries—Great Britain, Japan, and the United States—have also found war gaming to be useful. The British have used the Tactical Exercise Without Troops to build leaders' knowledge which results in respect and trust from both subordinates and peers.[5] The Japanese developed such tactics as shallow water torpedo attacks, later successfully used at Pearl Harbor.[6] Adm Chester W. Nimitz said interwar gaming at the Naval War College refined much of the World War II strategy of island hopping and aircraft carrier usage.[7] His strong belief in war gaming is captured in these comments: "nothing that happened during the war was a surprise—absolutely nothing except the Kamikaze tactics toward the end of the war; we had not visualized those."[8] According to James Dunnigan, a respected war-game designer, the Pentagon officials used commercial hobby store war games to develop courses of action after Iraq's invasion of Kuwait.[9] War games can improve knowledge, build trust and understanding, explore tactics, and build strategy. For SOF, war games can work at two levels—inform the strategic planner of the usefulness of forces and solve problems or play out scenarios which develop integration and respect at the interunit level. Further, we will see that human interaction is essential to true war games as are all elements to building cohesion. Next, we determine what makes a war game to fully appreciate its usefulness.

What is War Gaming?

Many people view war gaming as a simple term. However, war gaming has many different connotations. Joint Pub 1-02, *Department of Defense Dictionary of Military and Associated Terms,* defines *war game* as "a simulation, by whatever means, of a military operation involving two or more opposing forces, using rules, data, and procedures designed to depict an actual or assumed real life situation."[10] This definition does very little to clarify the issue. Many experts agree that understanding the terms *simulation, war game,* and *exercise* are essential to maximize a war game's usefulness.

Simulations

The purpose of a simulation is to create an environment where a function may be explored without the actual event having to occur. Simulations may be used separately or as a part of a war game. However, simulations are never the total content of a war game. Today, we conduct most simulations with computers due to the increased complexity of simulations. Many feel

that research scientists dominate today's simulations. These scientists attempt to answer questions on such topics as force structure, weapons systems effect, and so forth. The former Military Airlift Command's M-14 airlift system simulation is a good example of an analytical tool. The M-14 system could simulate more than 450 airfields and resolve such issues as the number of work hours, by specialty, needed to complete a deployment. In these type cases, very little human involvement decides outcomes other than to input data and ask for solutions.[11]

Another area of simulations that continues to expand rapidly is the simulator. A simulator can be a very detailed and realistic replicate (i.e., Boeing 747 aircraft cockpit) or a simple mock-up (i.e., Nintendo-type computer tank game). For the most part, simulators include human interface, but not one against the other. The most important aspect about simulations is accurately determining a realistic outcome as opposed to war gaming's concern with the process.

War Games

Peter P. Perla, a well-known naval war gamer, and James Dunnigan believe a more classical and useful definition would restrict war gaming to any type model or simulation that does not involve any actual military forces but uses two opposing sides represented by players.[12] In other words, this separates a war game from an exercise. Does the restriction of no actual military forces limit the number of people who could be involved in a war game? No, the restriction is intended to use the human mind to represent the forces without using the actual resources required. As an example, an entire joint special operations task force (JSOTF) and its functions could be a desired level of a war game. But the support organizations, such as AFSOF aircraft and aircrew, ARSOF Special Forces (SF) A Teams, or electronic warfare aircraft would be simulated as required. What about opposing forces mentioned in Joint Pub 1-02? Perla and Dunnigan further state the opposing teams must be actual people and not be simulated. The purpose of a classical war game is not just the rigorous, quantitative dissection of a problem, but also "an exercise in human interaction, and the interplay of human decisions and the outcomes of those decisions make it impossible for two games to be the same."[13] Other experts say that war gaming should not be limited to the classical definition.

Exercises

Experts believe that actual forces may be used to act out the simulated battles or engagements like a real life size chessboard. The Army's Louisiana Maneuvers would be an excellent example. Joint Pub 1-02 describes an *exercise* as "a military maneuver or simulated wartime operation involving planning, preparation, and execution. It is carried out for the purpose of training and evaluation."[14] Maj C. Parks Schaefer in his report, *Computer-Assisted Wargaming for the Military Airlift Command,* describes two types of exer-

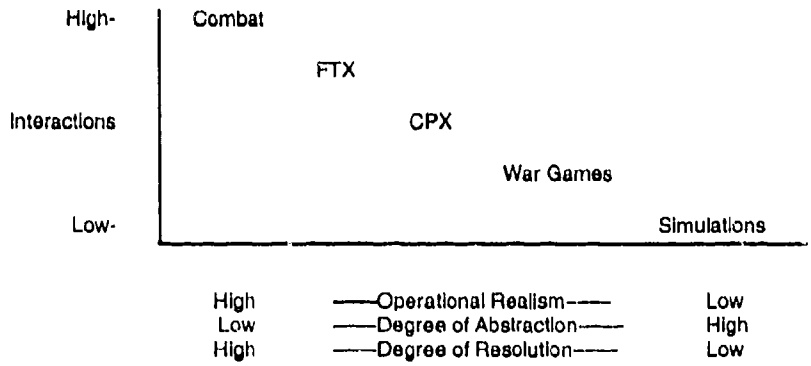
cises—command post exercise (CPX) and field training exercise (FTX). CPXs such as Air Combat Command's Blue Flag are designed to exercise a commander, the staff, and communications without involving the other forces. Whereas, FTXs actually take place in the field with at least one team's troops and armament present against a notional or actual opponent.[15]

Relationships

Schaefer goes on to say that the actual boundaries between simulations, war games, CPXs, and FTXs are not always clear and at times overlap. For example, the JSOTF scenario mentioned earlier could be used to train individuals in specific duties—a CPX. Or it could be used to explore the human decisions made in determining courses of action—a war game. Table 1 is a graphic representation of a war game's place in the military continuum. Combat is depicted, but we do not enter combat just for the sake of gaining experience. When deciding which tool in the military continuum to use, such terms as realism, abstraction, resolution, and level of interactions are essential.

Table 1

Military Continuum and Relationships



Source: Adapted from *Joint Special Operations Awareness Program, Caribbean Scenario*, 1 November 1993, figure 2.

Realism is concerned with the degree of actual operational accuracy required. Abstraction is concerned with the player's ability to think and express an idea or action without all the details. In the context of war gaming, resolution is the integration of realism and abstraction into one term. That is, high resolution would mean high realism and low abstraction. The opposite holds true for low resolution. Resolution can be applied across the entire continuum, but is more commonly associated with the level of a war game. Interactions are concerned with the number of individual actions required to accomplish the tool. A war game's desired level of play determines how much realism, abstraction, and interaction are required.

Most experts identify three levels of play—global/strategic, theater/operational, and local/tactical. Generally, resolution requirements of a game are proportional to the level of play (i.e., tactical games require high resolution compared to strategic games' need for lower resolution). Some games are a hybrid of these levels such as operational-tactical games which use higher level decision making with a lower level of combat resolution.[16]

In global/strategic games, the players usually represent the opposing national command authorities. The focus is to test strategies, identify important issues, and gain perspective. Areas that have been looked at include prehostilities and transition politics, D-day engagements, escalation, and termination criteria. The results are normally qualitative narratives with little numerical data. This level requires a great deal of time to play with a large supporting cast. These games tend to bring together such experts as political affairs advisors and scientists who would not otherwise exchange ideas. With this in mind, the games are not played often and seldom repeated with the same circumstances.[17]

The theater/operational games usually represent a combatant command commander in chief (CINC) and his staff. At this level, the games explore and identify strategic, operational, and tactical problems. The main concern is the force level and employment options required to accomplish the missions. These games are more frequently played than strategic games and have similar results. However, they generate more numerical data and identify unforeseen solutions or areas requiring further study.[18]

The primary purpose of local/tactical games is to improve the perspective of participants at the division/wing level and below. The focus is on force levels and tactical deployments, weapon and sensor performance, interrelationships between various warfare areas, and identification of areas for further study. These games are played more often than the other two categories. Local/tactical games create more of a balance between the qualitative and quantitative results. These games are the most difficult to design accurately which questions the reliability of numerical results. However, properly designed games provide an excellent opportunity to explore tactics, to identify valid and invalid assumptions, and to assess potential usefulness.[19] There are certain advantages and disadvantages of war games over other tools in the military continuum.

Advantages and Disadvantages

The first and foremost advantage of war gaming is it makes people think about war, without the risk of losing lives or destroying equipment. War gaming is usually quite inexpensive compared to running an exercise. Actual game play seldom involves more than a few dozen players and support personnel for a few days compared to the hundreds or thousands of personnel required to run a FTX or CPX. The planning and analysis of both a war game

or an exercise can take several months, but war games are generally less expensive.[20]

Another significant advantage of war gaming is that the games may be replayed repeatedly without expending resources and causing unit fatigue or stress as opposed to an exercise. Time can be compressed or expanded during war games to focus on the issues and discuss options. This approach makes the most efficient use of time by eliminating hours of boredom between the moments of stress found in actual combat or an exercise.[21]

Unlike exercises, war games can be played anywhere, since they are usually fought on a map. Computer-assisted war games can increase learning by minimizing time-consuming calculations whose only functions are to determine the effect of a decision. The player still makes the decisions and calls the shots. At the same time, noncomputer-assisted games, such as the Joint Special Operations Awareness Program, can also be an excellent tool.

The emphasis on human interaction and role playing can make war gaming a powerful learning tool. War games are best used to investigate processes, not to calculate outcomes as in a pure simulation. This allows commanders to overcome the reluctance to experiment with new ideas with their staffs. Further, most exercises do not permit a commander to experiment with new ideas since the exercises are normally graded. At the same time, players can build and test their skill in the art of decision making. Educational war games allow for greater abstraction by forcing participants to look at reality from a different angle and may lead to fundamental changes in how they see that reality. War gaming can also lead to the discovery of other factors whose importance have been unsuspected or undervalued. As an intellectual exercise, it is probably the best in simulating the fog and friction of war than time constraints, imperfect information, and luck.[22]

No matter how good the war game, Adm Arleigh A. Burke says, "nobody can actually duplicate the strain that a commander is under in making decisions during combat."[23] Lt Col David B. Lee, in his article "War Gaming: Thinking for the Future," says war games do not convey the threat of death or severe punishment for losing or inappropriate play. Therefore, players may not act in the same way as in an actual conflict. Some players may attempt to read the school solution or appease the sponsor.[24] The Russians are a prime example. They have had a very good program since World War II. However, the players always ensured that results conformed to the Marxist-Leninist dogma. No one wanted to risk their career on other results.[25] The point to remember is that war games are not perfect. Their best use is in attempting to "teach us what we didn't know we didn't know."[26]

Other prime advantages of war gaming are that it allows participants to further learn their skills, develop a sense of the mission, explore doctrine and tactics, bond with peers, and build trust. These are many of the same elements required for cohesion discussed in chapter 1. Further, war gaming's success is based on human interaction, the most important element of cohesion. With the advantages appearing to outweigh the disadvantages, how has the Department of Defense (DOD) used war gaming?

Current Service Uses

Dunnigan estimates that the US military has more than 600 different games, simulations, and models of which war games are a minority.[27] Many of these are older and have not been used in quite a while. War games within DOD cover a wide range from educational to analysis, strategic to tactical, and manual table top to sophisticated computer assisted. War games are located throughout the world. This section takes a brief look at some of the service's war game programs.

Since 1978, the Navy has used the Naval Tactical Game (NAVTAG) to help its naval officers and midshipmen study the fundamentals of tactics. Players can control individual ships or entire battle groups. NAVTAG originally started as a manual game and was updated to a computer-assisted version. Adm Thomas Haywood, former chief of Naval Operations, saw NAVTAG as an important educational tool to help naval officers keep their tactical skills current.[28]

The Army manages the bulk of its programs through the US Army Training and Doctrine Command (TRADOC), with Fort Leavenworth, Kansas hosting the National Simulation Center (NSC). One of the NSC's programs is the brigade/battalion battle simulation (BBS). BBS is designed to provide conventional army forces, battalion and brigade commanders and their staffs, an environment to execute the tactical level of the AirLand Battle Doctrine.[29] BBS is used primarily as a CPX driver.

The Army also incorporates war gaming into such branch schools as the Armor School at Fort Knox and the Aviation School at Fort Rucker. Maj Ed Strickland, operations officer of the Aviation Training Brigade, Fort Rucker, says the school will commence operations of a new Janus air war game in mid-February 1994. The war game will allow resolution down to the individual aircraft and concentrate on tactical operations. Major Strickland says that SOF aviation is not specifically designed into the game, nor was it planned. However, it should not be a complicated affair to do so in the future.[30]

The Air Force Wargaming Institute (AFWI) is located at Maxwell AFB as part of Air University's College of Aerospace Doctrine, Research, and Education (CADRE). The AFWI supports not only the service's senior, intermediate, and company grade schools; but also special projects of Headquarters Air Force and select foreign nations. Col Robert O. Williams, director of Operations, says the AFWI's emphasis is on education, even though some ancillary training or analysis might occur.[31] On the other hand, Col Tom Geary, director of CADRE's Combat Employment Institute, says his Contingency Wartime Planning and Joint Doctrine Air Campaign courses use war gaming as a training tool to complement classroom academics.[32]

The USAF Battle Staff Training School (BSTS) operates Blue Flag, a realistic command, control, and communications (C^3) exercise focused on an Air Operations Center. Blue Flag is more a sophisticated CPX than a war game. However, BSTS uses simulation to provide enemy inputs and resolve actual execution. The player's main focus is on training, but elements of education

are also occurring especially for decision makers. An interesting side note is that BSTS includes briefings on SOF's integration into the theater air campaign.[33] Another significant twist is the school's use of a distributed war-gaming system. This system allows BSTS personnel to deploy to another location, such as a CINC's headquarters or other participants' home station, and interface with the game at the school. Even though the distributed system reduces cost, participants can be distracted easier by their home station daily routines. Col William Meeboer, Commandant of the USAF BSTS, says prototyping is going on to interface between the various service systems. He believes, that with reduced budgets and increased deployment costs, joint distributed systems will become even more important.[34]

The Joint Warfighting Center (JWFC) at Hurlburt Field, Florida (soon to be located at Fort Monroe, Virginia) is concerned with operational issues of the war-fighting CINCs. The JWFC has just begun to look at operations other than war. However, SOF involvement has only been representative of the CINC's staff involvement. In conjunction with the Defense Modeling and Simulation Office, the JWFC is attempting to integrate the MH-53 mission rehearsal simulator into the virtual war-gaming simulator. The intent is to explore the technology and usefulness of such a system.[35] Does the decision maker at the operational level have to see what the pilot does? The author contends that decision makers could become saturated watching all the details, if not careful. This begs the question, what are war games' main purposes?

Purposes of War Games

The Military Operations Research Society's 1987 workshop on simulation says there are two main uses of simulation and war gaming—analysis or training and education. These divisions are not always mutually exclusive and can be hard to classify.[36] Colonel Williams says the Air Force divides war games into three purposes: education, training, and analysis.[37] On the other hand, Maj Pete Gibson of the Army's Battle Command Training Program (BCTP), says the Army uses the terms training and combat development analysis to classify war games.[38] Since all three groups are similar in nature, we will use the terms *analysis, training,* and *education.*

Training and education are taken together since they are closely related and concerned with knowledge. Training involves greater knowledge than mere stimulus-response performance. It allows one to follow directions and execute sequential instructions, but does not give the ability to create original thoughts. Some would describe this as procedural knowledge. For example, initial medic training would be concerned with teaching known ways to stop bleeding. On the other hand, education is concerned with conceptual knowledge without the necessity of hands-on practice. This is the area where we express fundamental relationships, and develop and test theories. In this case, the medic would build on previous knowledge in understanding the

principles of bleeding, and possibly develop a new method to stop the bleeding. It is not always possible to separate education and training when designing war games.[39]

Training and education is further broken down into skill development and exercise drivers. Skill development can focus on either the individual or the team. In a training context, this might include the ability to prepare and use an air tasking order. Whereas in the educational context, the emphasis would be on how the air tasking order fits into the big plan and its importance. As an exercise driver, training might be concerned with teaching AC-130 pilots how to communicate with ARSOF during close air support missions. But in the educational sense, pilots would be concerned with understanding the users' needs and the possibility of developing new ways to support the user. If this relationship between education and training is not confusing enough, what about war games used for analysis?

Analysis is more concerned with processing information to calculate the outcome of events. This is usually done through a preordained sequence of calculated events using fixed information about forces and capabilities. Human involvement is usually limited. The sequence is run repeatedly with analysts making adjustments at the beginning of each run, until they feel both sides are optimally using their forces.[40]

The Military Operations Research Society further divides analysis into research and evaluation tools, and operations support tools. Research and evaluation tools are primarily concerned with weapon systems development and effectiveness. Operations support tools are used as decision aids for combat development, and force capability and requirements. Combat development focuses on policy, strategy, and doctrine. Force capability and requirements are concerned with courses of action, mix, effectiveness, and resource planning.[41]

In respect to strategy, doctrine, courses of action, and so forth, it is quite easy for education and analysis to overlap. Education is more concerned with the human process involved. It allows decisions to be made that ripple throughout the game. How and why an engagement occurred is more important than the analysis approach of what happened and how much was lost. Even though analysis might be concerned with the same subject matter as education, it does not factor in such things as brilliant hunches or incredible blunders. Peter Perla says, "there are no Chancellorsvilles in campaign analysis."[42] How does one know which type of war game is desired or being used? Col Michael E. Heenan, former Director of AFWI, uses table 2 to show the relationships between a war game's purpose and its goals.[43]

War Gaming within SOF

Earlier, we read about the JWFC's attempt to integrate the MH-53 mission rehearsal simulator into war games. Could this integration be a possible first step toward integrating SOF into war gaming? First let's look at SOF's current involvement. Generally speaking, SOF is only notionally involved in all

service and CINCs war games. When taking a closer look at the services' individual war games, SOF's aviation assets are involved even less. For example, the NSC's BBS has modeling for Army aviation, but not specifically for SOF aviation. The tactical Air Force is represented, but even it is minimal.[44] The AFWI is just as guilty.[45] Does SOF have any of its own war games?

Table 2

War-Gaming Goals

Education	Training	Analysis
• Concepts	• Procedures	• Capabilities
• Questions	• Learn	• Examine
• Decisions	• Tasks	• Results
• Understanding	• Skills	• Choices
• Synthesis	• Integration	• Isolate

Until recently, the answer was no. Aircraft simulators have been around for some time in the Army and the Air Force. But they were primarily used as a training device to learn a weapon system. Only recently have simulators seen use as mission rehearsal devices. There are still a lot of questions to be answered here. For example, the MH-53 device would allow crew members to attempt several options in the terminal area, but how do they communicate their preferences to the user to ensure their needs are also being met? Who is playing the opposing forces—the computer? Initial attempts appear to be more concerned with results than the process. This does not diminish mission rehearsal devices' usefulness, but it does not appear to be a war game. Maybe the joint distributed war-gaming systems advancements will take care of this.

In February 1993, the Army SOF Warfighting Center was established at Fort Bragg. The center provides computer-simulation to support the academic programs at the John F. Kennedy Special Warfare Center and School (JFK SWCS) and the Army Special Operations Command operational units. The SOF Warfighting Center is using the BBS and Janus programs mentioned earlier. They are scheduled to become a regular part of the academic course beginning in January 1994.[46] The aviation capability within the programs is still basic Army, it is not SOF unique.[47]

The only two assets which come close to SOF aviation war gaming are the USAF Special Operations School's Joint Special Operations Planning Workshop (JSOPW) and USSOCOM's Joint Special Operations Awareness Program (JSOAP). The JSOPW prepares participants to develop courses of action for decision makers such as a theater SOC or a joint special operations task force commander. The participants receive seven days of academics followed by three days of practicum. This is not a war game in the true sense, since there is no enemy countering the players' decisions. However, participants discuss many of their concerns thereby developing a better understanding and exploring different avenues.[48] JSOAP is primarily designed to train and edu-

cate non-SOF commanders and key staff. First, it teaches about SOF assets and then uses a seminar game to explore the capabilities and limitations of SOF assets.[49] During a seminar held at the Air Force's Air War College, the JSOAP was found to be useful to even experienced SOF personnel.[50] Further, both the JSOPW and the JSOAP are primarily concerned with the operational level and staff integration.

Some crew members would say that SOF aviation war gaming is done through tactics training programs. AFSOC has a program call Special Operations Aircrew Planning (SOAP). SOAP requires crews, twice a year, to plan a contingency response operation and brief the plan to a verification review board. During the planning, crew members analyze threats, select tactics, and develop alternatives for any possible problems. However, there are three things that separate SOAP from a war game. First, a SOAP is only conducted up through the verification review board briefing. Therefore, crew members cannot develop decision making skills under dynamic conditions of execution. A second problem is no one represents the opposing force to throw problems into the actual execution. Finally, crew members conduct SOAPs in the confines of a unit with no user interface. Both the enemy's and the user's input come from canned intelligence data and personal knowledge.[51]

Other SOF aviators contend that free play exercises accomplish the same thing as war games. This might be true in some cases, but exercises are very costly in personnel and equipment requirements. War gaming would permit the already stretched aviation resources to be used more efficiently. Even in free play exercises, players cannot stop or control time to gain understanding or explore issues.

Much is occurring in the world of simulations, war games, and exercises. It is becoming harder and harder to distinguish between them. However, we can see a distinct lack of SOF aviation participation in war gaming, particularly at the tactical level. Should SOF aviation become more involved? After reviewing the advantages and disadvantages of war gaming, the author believes the answer is yes. SOF must further explore and exploit war-gaming educational opportunities, especially in the tactical environment.

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29. Maj Pete Gibson, US Army Battle Command Training Command Operations Group, Fort Leavenworth, Kans., telephone interview with author, 25 October 1993.

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Chapter 4

Conclusion and Recommendations

The Pentagon's task force on readiness, headed by Gen Edward E. Meyers, USA, Retired, recently reported that US forces would have difficulty fighting two regional wars due to recent downsizing, budget constraints, and strategy changes. The report goes on to say that units will "be subject to some degraded readiness," and the resulting "turbulence is the no. 1 enemy of cohesiveness in units and concomitant readiness."[1] If the current operations tempo continues, combined with further reductions in defense spending, the author believes SOF's cohesion will degrade to an untenable level.

Conclusion

Chapter 1 showed that cohesion has historically played an important role in war fighting. Nora Kinser Stewart used the South Atlantic Conflict of 1982 to describe four types of cohesion—horizontal, vertical, organizational, and societal. Additionally, another unnamed type involves the cohesion of different units with each other in a more horizontal fashion (e.g., the cohesion required between a Ranger company and an AC-130 crew). However, we discovered that the individual elements of cohesion are more important than what type of cohesion is being defined. These elements include trust, peer bonding, sense of mission, teamwork, respect, friendship, relationships between subordinates and superiors, shared unpleasantries, loyalty to the nation, valor, heroism, defense budget, strategy and doctrine, training, and command, control, and communications (C^3). After determining what cohesion was, the paper looked at cohesion's role in the joint SOF environment.

At the beginning of the 1980s, a general lack of societal cohesion existed within all of SOF which was caused by poor funding, lack of training, and inadequate C^3. Vertical and horizontal cohesion varied greatly between such units as the recently certified Delta Force to the quickly formed Iranian rescue helicopter unit. In the mid-1980s, with the help of Congress, SOF saw the creation of United States Special Operations Command (USSOCOM) which began to improve cohesion within SOF. The results of Operations Just Cause and Desert Storm showed significant improvements not only in SOF internal cohesion but also between SOF units and conventional forces as well. However, the task is far from complete. Chapter 1 presented several examples of how SOF needs to improve its cohesion. These examples are concerned with

the cohesion between units of different organizations such as Air Force special operations forces and Army special operations forces.

Chapter 2 explained that doctrine, education, and training are the building blocks of cohesion. We have seen tremendous improvement in SO doctrine in the last 10 years. The most significant accomplishment was how doctrine defined SO organization and training. SO doctrine details the need for small highly trained joint units to conduct its missions. We learn about doctrine through education and experiences. The service components have had individual educational programs until USSOCOM implemented the Joint Special Operations School Integration Committee (JSOSIC). The JSOSIC has tackled problems of standardizing training and education. Still, the service components tailor their programs to meet their specific needs.

On the positive side, AFSOC has developed Commando Edge to improve its formal professional development. Having a solid foundation of education allows individuals to learn and understand others' strengths and weaknesses. This education builds respect and trust along with developing sound doctrine and tactics which can then be practiced and explored in training.

Joint mission essential task lists, developed from the war fighting CINCs, provide guidance to design specific training tasks. However, at the lowest unit level, many tasks that would be performed jointly in an actual operation are done unilaterally during training. While unilateral training may be economical, it stabs at the heart of cohesion. Cohesion between units of different services can only be developed as they practice their individual skill together as a team. Unilateral training thus forgoes the opportunity to foster joint cohesiveness. Once the building blocks of cohesion have been laid, war games could improve and maintain cohesion.

Chapter 3 examined the differences between simulations, war games, and exercises while realizing that these activities overlap. A war game's main contributions come through human interaction, especially in respect to education. Players can explore new ideas about tactics and doctrine without the constraints of an exercise schedule or fear of making mistakes in front of subordinates. Further, costs are minimal compared to exercises or actual combat. On the other hand, war games do not present the same challenges as actual combat and do not adequately convey the results of the player's decisions (especially negative consequences, like death). Within the realm of war gaming, we discovered that SOF games are virtually nonexistent. SOF is represented in the various services' programs, but for the most part this representation is notional. Further, SOF does not have any tactical games for its service components to develop knowledge of tactics and doctrine. In this area in particular, SOF has a major deficiency. War games also allow players to learn about and build respect for each other and their units. All this begs for an answer to the question, "Can SOF improve its cohesion?"

SOF has made tremendous improvements in cohesion since the early 1980s. However, SOF aviation lags in developing the necessary cohesion between its components and its customers. Also, cohesion could be hindered by the current trend in reducing budgets and increasing operational commitments, in

addition to the established shortage of SOF aviation assets to support users' needs. Much of the training SOF conducts does not allow for individual aircrews to get to know the user and vice versa. The nature of SOF aviation, special forces (SF), sea-air-land (SEAL) teams, and Rangers missions does not require them to be together all the time. For example, a SF or SEAL team's percentage of time that is required to ensure proper cohesion with aviation might only be five percent compared to aviation's need to be with the user 40 percent. Since the joint training time is so critical, AFSOF personnel must have a firmer understanding of their role. This is about to take a significant step forward with the Commando Edge program. However, most of the SO courseware appears to be introductory in nature.

To build future strategists we must challenge constructive thinking and communications. Courses that require writing and speaking will develop these talents. SOF personnel will gain from a comprehensive, challenging program resulting in improved cohesion within SOF and with the conventional forces.

Recommendations

We must address two issues before presenting the recommendations to improve cohesion within and between SOF aviation, its customers, and conventional forces. First, the late Congressman Dan Daniels (D-Va.) and others have held the belief that a fifth service should have been created instead of creating USSOCOM.[2] While it is likely that creating a fifth service would have improved cohesion within the SOF arena, it is also probable it could have created more problems with conventional forces. The discussion of a fifth service is beyond the scope of this paper since it would involve much more than just the question of cohesion. The second issue deals with creating a national SOF training center. One proposal would have the center include areas for doctrine and tactics development, readiness (training) and evaluation, professional development, and war gaming. This proposal goes on to state that the headquarters of USSOCOM and the SOF service components should be collocated with this training center.[3] This center would certainly improve cohesion within SOF. But in light of today's financial reality, the national center is not going to occur any time soon even with possible savings from the reductions in the headquarters' staffs. Further, more is required to build cohesion than just what the proposed center could offer. However, this idea should be kept handy in the advent of financial changes or for long-term planning excursions. The following recommendations should improve cohesion and still be economically affordable. Further, these recommendations are divided by command level responsibility.

AFSOC

The recommendations are founded on the assumption that SOF personnel must understand doctrine. First, AFSOC must issue Air Force Doctrine Docu-

ment 35 (AFDD 35), *Special Operations,* to all AFSOC officers and NCOs; and issue Joint Pub 3-05, *Doctrine for Joint Special Operations,* to all captains or higher and selected NCOs (determined by mission necessity). Just as Gen Merrill McPeak says in the foreword of AFM 1-1, *Basic Aerospace Doctrine of the United States Air Force,* "the contents of these two volumes are at the heart of the profession of arms for airmen," the same is true of AFDD 35 and Joint Pub 3-05 for special operators. This would reinforce the teaching of the Introduction to Special Operations Course at Kirtland AFB. Joint Pub 3-05 would prepare most officers and NCOs as they begin to become more involved in the joint arena. To ensure the issuing of these publications has the desired effect, the next recommendation is closely tied to the first.

Second, the USAF Special Operations School (SOS) should develop a correspondence course as part of the Commando Edge program which would ensure AFSOC officers and selected NCOs appreciate the similarities and differences between basic AF doctrine, AF special operations doctrine, and joint special operations doctrine. One example is to explain why AFSOF is part of the theater SOC's organization versus the theater air component commander's organization. This course would prepare individuals for the next level of SOF in residence courses. For example, the USAF SOS's Joint Special Operations Staff Officer Course could then reduce the currently used fire hose technique so the students could carry on more seminar discussions and possibly write short papers.[4] Appendix A has a proposal from the College of Aerospace Doctrine, Research, and Education (CADRE) which could be used as a possible model. The proposal also points out that CADRE can help others develop and set up appropriate doctrine training.[5] As a minimum, the course should also include ARSOF aviation doctrine, but thought should be given to a joint ARSOF, NAVSOF, and AFSOF program. Why go to all this effort?

Gen Michael J. Dugan, USAF, Retired, during an address of the 1994 Air and Space Doctrine Symposium, expressed his belief that not enough time is spent thinking about doctrine and that doctrine cannot be captured in a two-day effort.[6] Further, Col Michael D. Wyly, USMC, Retired, in his article "At the Forefront of Tactical Thought" reminds us that doctrine is the basis for tactics. But he also reminds us that "doctrine that does not grow—evolve in consonance with other changes—is a danger rather than a helpful device . . . all doctrinal publications, need revision from the very day they are issued."[7] Lastly, Maj Gen Richard C. Bethurem, USAF, states most people "probably do not truly understand its [doctrine] implication on daily activity."[8] Assuming that we do a good job of keeping our doctrine current, not just tinkering with it, we should use our joint doctrine and tactics to train.

As mentioned earlier, there is a deficiency of SOF aviation assets to train with other SOF assets as often as desired. AFSOC has recently gone to the hard aircrew concept to build more cohesion among its crews. SF groups train toward a specific area of orientation.[9] Here is a two-fold recommendation derived from these facts. First, stateside aircrews must be assigned a primary and secondary theater of operations to concentrate on. For example, a certain number of MC-130E aircrews might augment European assets and also be the

primary assets for South America. These crews should then be the primary aircrews to train and exercise with the respective SF groups. The assignment of an area of responsibility does not restrict world-wide use of that crew, but enhances its capabilities. Second, these crew should take the appropriate regional orientation courses before assignment to a unit. This would maximize the usefulness of the course versus attending halfway through an assignment. It would also minimize the effects of another temporary duty assignment to the states for tasked saturated overseas units. The next recommendation should be taken in light of further budgetary cutbacks and possible reductions in forward presence.

This recommendation applies only if AFSOF overseas units are relocated stateside due to a forced reduction in forward presence. These units should collocate with a SF group reinforcing the previous recommendation. This option could also be used for present stateside units, but would involve additional costs compared to a forced reduction in forward presence. The 353d Special Operations Group at Kadena Air Base, Okinawa is the only AFSOC group collocated with users. However, these units must deploy to accomplish significant training. Still, this close proximity allows units to occasionally meet and discuss tactics, needs and desires, and so forth on a more routine basis. These routine meetings are essential to building cohesion.

Finally, I believe AFSOC should further explore the following issues. Would the issuing of Joint Pub 3-05.3, *Joint Special Operations Operational Procedures,* at the squadron level help build the technical knowledge of those tasked to augment a staff during a contingency? If Joint Pub 3-05.3 is issued at the squadron level, would a primer with practice exercises further its usefulness? Next, aircrew members commented that exercises need to have less canned scenarios and include more time to work with the customers. Given the constraints of an exercise this might be difficult. One suggestion was to use isolation procedures not only to plan the exercise mission, but as a time to learn more about each others' requirements. Last, should AFSOF initial mission qualification graduates attend the ARSOF's green platoon initial training upon graduation? This experience would expose AFSOF personnel to future ARSOF leaders and operators at an earlier stage, many of whom they will be working with in the near future. The course is designed to build cohesion and could prove very useful during an actual mission. However, AFSOC would have to determine what portions, if not the whole course, fill required training needs.

USSOCOM

The next recommendation would require a significant paradigm shift in SOF professional publications. I propose that USSOCOM combine components' publications into a joint publication. Originally, I gave thought to just improving the current command magazines by increasing the cross flow of ideas between the components, especially in regards to aviation assets. However, this would leave much of the things that are important to a specific unit

or a specialty unappreciated by the other components. These fine details are important in developing understanding and concern for the other units. The idea is to develop along similar professional lines and to build cohesion with our sister services. This joint publication should have an editorial section as in NAVSPECWARCOM's *Full Mission Profile,* AFSOC's *Night Flyer,* or the *Marine Corps Gazette* in addition to standard articles as found in USASOC's *Special Warfare.* The editorial section will give readers a chance to informally exchange ideas and explore new ideas, thus expanding on USSOCOM's SOF Clearinghouse concept.[10] This portion of the recommendation would probably be the hardest to accomplish, but would be a barometer of professional development within all of SOF. Finally, there should be a CINC's recommended reading list and quarterly topic list. These lists would be a starting point for discussions with the troops when the CINC or service component commanders make field visits.

The following recommendation applies to both collocated and noncollocated SOF units. War games are a way for units to share doctrine, strategy, policy, tactics, techniques, and general bonding. SOF aviation must use war gaming, especially tactical games, to build understanding and explore new concepts and ideas with fellow aviators and customers. USSOCOM Manual 350-1, *Training Joint Readiness Exercise Manual,* says "the mission areas of SO [special operations], PSYOP [psychological operations], and CA [civil affairs] are particularly difficult to represent in a realistic model or simulation [war game]" and the games have an "associated difficulty in predicting quantifiable outcomes to alternate courses of action."[11] For this reason, the games should be designed for education versus training or analysis as mentioned in chapter 2.

Further, policymakers should use care not to confuse war games with the integration of mission rehearsal simulators which seem to focus on analysis and training. The games should be computer assisted to maximize their usefulness. Player interface (playing at one location) is essential to building cohesion. An alternative would be to have games that could be played by satellite link but these would not be as effective in building cohesion. A central wargame facility should be established to develop and conduct the games. However, the games should be capable of being played remotely from the central war-game facility like the USAF Battle Staff Training School. This remote capability would allow participants to visit the host participants home station gaining further insights toward cohesion. The initial content should emphasize SOF aviation and user interface. During the developmental stage, thought should be given to possibly using a modification of the Army Aviation Center's new war-game facility. After conquering the SOF perspective, both operational and tactical war gaming with conventional forces should be improved. Unfortunately, a war game is not something that an individual can only play once and expect to maximize its benefits. Joint war games should be played at least once a year, preferably twice, and their duration should be between three-to-five days.

If SOF units cannot be collocated in the future as mentioned under the AFSOC recommendations, another recommendation allows noncollocated

SOF units to exchange ideas. A Special Operations Aviation Integration Program should be established. It would go beyond the Special Operations Aircrew Interfly Program mentioned in chapter 2 and would not be limited to just SOF aviators, but include SOF aircrews and users. Instead of the standard tactics conference, groups would be formed to work specific issues and develop new ideas. Preliminary testing on these new ideas would take place while the originators are still at the conference. Appropriate headquarters personnel should be available to validate the test. A thumbs up to the preliminary testing could result in refinement by the appropriate authority and inclusion in the appropriate publication. The process might be similar to a joint process action team or tiger team with a limited time to work and authority to act.

Many of these recommendations should have already occurred. However, feedback indicates these recommendations need to become more formal to ensure they become a reality—thus this paper. At the same time, we should not implement any recommendations as just another bureaucratic policy, but as a real attempt to increase cohesion. SOF cohesion has come a long way, but there is still room for improvement especially in a continually changing world with less time to gear up and practice as a team for contingencies.

Notes

1. Gilbert A. Lewthwaite, "After Cutbacks, U.S. Forces Would be Hard-Pressed to Handle 2 Conflicts," *Baltimore Sun*, 19 February 1994, 3.

2. Col William G. Boykin, USA, "The Origins of the United States Special Operations Command" (Paper prepared by USSOCOM, no date), 9–11.

3. Air Force Special Operations Command, "National SOF Command and Training Center," white paper, October 1993, 7–8.

4. Author's perspective as student of Joint Special Operations Staff Officer Course 93C.

5. Background paper on "College of Aerospace Doctrine, Research, and Education (CADRE) Doctrine Education Proposals," 28 February 1994.

6. Gen Michael J. Dugan, USAF, Retired, address to the 1994 Air and Space Doctrine Symposium, Maxwell AFB, Ala., 9 March 1994.

7. Col Michael D. Wyly, USMC, Retired, "At the Forefront of Tactical Thought," *Marine Corps Gazette* 78, no. 1 (January 1994): 45.

8. Maj Gen Richard C. Bethurem, address to the 1994 Air and Space Doctrine Symposium, Maxwell AFB, Ala., 8 March 1994.

9. Joint Pub 3-05, *Doctrine for Joint Special Operations*, 28 October 1992, A-4.

10. For more details on SOF Clearinghouse see "SOF Warriors: Quiet (and Thinking) Professionals," *Night Flyer*, 1st Quarter 1994, 3.

11. United States Special Operations Command Manual 350-1, *Training Joint Readiness Exercise Manual*, 24 May 1992, 15-1.

Appendix A

Extract on Doctrine Education Proposals

The following extracts are taken from the background paper "College of Aerospace Doctrine, Research, and Education (CADRE) Doctrine Education Proposals"[1] for the 1994 USAF Air and Space Doctrine Symposium. The extracts correspond to the background paper's paragraph numbers.

Paragraph 1:

> Air Force Policy Directive (AFPD) 10-13, *Aerospace Doctrine,* 30 Apr 93, assigns Air University (AU) the responsibility for doctrine education within the Air Force . . . CADRE provides advice, assistance, and research support to the Headquarters USAF Director of Plans, the Air Force Doctrine Center, major commands, and field operating agencies. CADRE has drafted Air Force Instruction 10-1302, "Air and Space Doctrine Education," to implement AFPD 10-13, to formalize AU's role, and to explain CADRE's tasks in doctrine education.[2]

Paragraph 2:

CADRE proposes to enhance doctrine education, awareness, and understanding Air Force-wide though a videotape series and a new AU course on air and space doctrine.

a. The videotape series will consist of eight 20- to 30-minute videotapes and will examine foundations of US air doctrine, air power theory, the doctrine-strategy link, principles of war, tenets of air and space power, and operational air doctrine.

b. A three-day doctrine course will be taught at AU, or at the unit via either traditional instruction or distant learning media (such as videoteleseminar or teleconference). The course can be tailored to the audience and the teaching medium.

Paragraph 3:

> CADRE . . . would seek to create a more consistent "AU voice" regarding doctrinal subjects and promote a common doctrinal foundation among programs . . . ensuring doctrine curriculum reflects Air Force thinking . . . promote a fuller understanding of doctrine among doctrine educators.[3]

Notes

1. Prepared by Lt Col Johnny Jones as found in the USAF Air and Space Doctrine Symposium notebook, 8–10 March 1994.
2. Ibid.
3. Ibid.

Appendix B

Definitions

Knowing joint- and service-approved definitions is an essential part of the educational process for developing cohesion. Several terms have recently changed or have double meanings. Most of the important words and phases in this report along with other routinely used special operations (SO) terminology are included below. This list is not all inclusive. The source of the definition appears in parentheses if other than Joint Pub 1-02, *Department of Defense Dictionary of Military and Associated Terms.* Some entries will have "JMTGM#" followed by a number. These entries have been approved but Joint Pub 1-02 has not been updated to reflect the change.

Air campaign. A connected series of operations conducted by air forces to achieve joint force objectives within a given time and area of operations. (AFM 1-1)

Air Force special operations base (AFSOB). That base, airstrip, or other appropriate facility that provides physical support to USAF special operations forces. The facility may be used solely to support AFSOF or may be a portion of a larger base supporting other operations. As a supporting facility, it is distinct from the forces operating from or being supported by it. (JMTGM# 002-1369-93)

Air Force Special Operations Command (AFSOC). The Air Force major command with responsibility for SO. The air component commander for United States Special Operations Command. Do not confuse with Air Force special operations component. (Author's definition)

Air Force special operations component (AFSOC). The AFSOC of a unified or subordinate unified command, or joint special operations task force. (JMTGM# 002-1369-93)

Air Force special operations detachment (AFSOD). A squadron-size headquarters, which could be a composite organization composed of different Air Force special operations assets. The detachment is normally subordinate to an Air Force special operations component, joint special operations task force, or joint task force, depending upon size and duration of the operation. (JMTGM# 002-1369-93)

Air Force special operations element (AFSOE). An element-size Air Force special operations headquarters. It is normally subordinate to an Air Force special operations command or detachment, depending on size and duration of the operation. (JMTGM# 002-1369-93)

Air Force special operations forces (AFSOF). Those active and reserve component Air Force forces designated by the secretary of defense that are specifically organized, trained, and equipped to conduct and support SO. (JMTGM# 002-1369-93)

Antiterrorism. Defensive measures used to reduce the vulnerability of individuals and property to terrorism. See also counterterrorism and terrorism.

Architecture. A framework or structure that portrays relationships among all the elements of the subject force, system, or activity. (JMTGM# 002-1369-93)

Area oriented. Personnel or units whose organizations, missions, training, and equipping are based on projected operational deployment to a specific geographic or demographic area. (JMTGM# 002-1369-93)

Army special operations component (ARSOC). The ARSOC of a unified or subordinate unified command or joint special operations task force. (JMTGM# 002-1369-93)

Army special operations forces (ARSOF). Those active and reserve component Army forces designated by the secretary of defense that are specifically organized, trained, and equipped to conduct and support SO. (JMTGM# 002-1369-93) Army SOF active and reserve component Army forces designated by the secretary of the Army that are capable of supporting and sustaining SOF. (Joint Pub 3-05)

Campaign plan. A plan for a series of related military operations aimed to accomplish a common objective, normally within a given time and space.

Cell. Small group of individuals who work together for clandestine or subversive purposes.

Clandestine operation. Activities sponsored or conducted by governmental departments or agencies in such a way as to assure secrecy or concealment. (It differs from covert operations in that emphasis is placed on concealment of the operation rather than on concealment of identity of sponsor.) In SO, an activity may be both covert and clandestine and may focus equally on operational considerations and intelligence-related activities.

Combatant command (COCOM)(command authority). Nontransferable command authority established by Tile 10, *United States Code,* section 164, exercised only by commanders of unified or specified combatant commands. COCOM (command authority) is the authority of a combatant commander to perform those functions of command over assigned forces involving organizing and employing commands and forces, assigning tasks, designating objectives, and giving authoritative direction over all aspects of military operations, joint training, and logistics necessary to accomplish the missions assigned to the command. COCOM (command authority) should be exercised through the commanders of subordinate organizations; normally this authority is exercised through the service component commander. COCOM (command authority) provides full authority to organize and employ commands and forces as the CINC considers necessary to accomplish assigned missions.

Combat control team (CCT). A team of Air Force personnel organized, trained, and equipped to establish and operate navigational or terminal guidance aids, communications, and aircraft control facilities within the objective area of an airborne operation.

Combat recovery. The act of retrieving resources while engaging enemy forces. (Draft of Air Force Doctrine Document 35)

Combat search and rescue (CSAR). A specific task performed by rescue forces to effect the recovery of distressed personnel during wartime or contingency operations.

Combatting terrorism. Actions, including antiterrorism (defensive measures taken to reduce vulnerability to terrorist acts) and counterterrorism (offensive measures taken to prevent, deter, and respond to terrorism), taken to oppose terrorism throughout the entire threat spectrum.

Counterdrug (CD). Those active measures taken to detect, monitor, and counter the production, trafficking, and use of illegal drugs. (JMTGM# 002-1369-93)

Counterinsurgency. Those military, paramilitary, political, economic, psychological, and civic actions taken by a government to defeat insurgency.

Counterterrorism (CT). Offensive measures taken to prevent, deter, and respond to terrorism.

Cover (military). Actions to conceal actual friendly intentions, capabilities, operations, and other activities by providing a plausible, yet erroneous, explanation of the observable.

Covert operations. Operations which are so planned and executed as to conceal the identify of or permit plausible denial by the sponsor. They differ from clandestine operations in that emphasis is placed on concealment of identity of sponsor rather than on concealment of the operation.

Denied area. An area under enemy or unfriendly control in which friendly forces cannot expect to operate successfully within existing operational constraints and force capabilities. (JMTGM# 002-1369-93)

Emergency resupply. Resupply mission based on a predetermined set of circumstances and time interval should radio contact not be established, or once established, is lost between the main base and the operating team. (JMTGM# 002-1369-93)

Evasion and escape net. The organization within enemy-held or hostile areas that operates to receive, move, and exfiltrate military personnel or selected individuals to friendly control.

Exfiltration. The removal of personnel or units from areas under enemy control.

Force multiplier. An element that, when added to and employed by a combat force, significantly increases the combat potential of that force and thus enhancing the probability of successful mission accomplishment. (JMTGM# 002-1369-93)

Foreign internal defense (FID). Participation by civilian and military agencies of a government in any of the action programs taken by another

government to free and protect its society from subversion, lawlessness, and insurgency.

Guerrilla warfare. Military and paramilitary operations conducted in enemy-held or hostile territory by irregular, predominantly indigenous forces.

Humanitarian assistance. Programs conducted to relieve or reduce the results of natural or manmade disasters or other endemic conditions such as human pain, disease, hunger, or privation that might present a serious threat to life or that can result in great damage to or loss of property. Humanitarian assistance provided by US forces is limited in scope and duration. The assistance provided is designed to supplement or complement the efforts of the host-nation civil authorities or agencies that may have the primary responsibility for providing humanitarian assistance. (JMTGM# 002-1369-93)

In extremis. A situation of such exceptional urgency that immediate action must be take to minimize loss of life or catastrophic degradation of the political or military situation. (JMTGM# 002-1369-93)

Infiltration. 1. The movement through or into an area or territory occupied by either friendly or enemy troops or organizations. The movement is made either by small groups or by individuals, at extended or irregular intervals. When used in connection with the enemy, it infers that contact is avoided. 2. In intelligence usage, placing an agent or other person in a target area in hostile territory. Usually involves crossing a frontier or other guarded line. Methods of infiltration are: black (clandestine); grey (throughlegal crossing point but under false documentation); and white (legal).

Insurgency. An organized movement aimed at the overthrow of a constituted government through use of subversion and armed conflict.

Irregular forces. Armed individuals or groups who are not members of regular armed forces, police, or other internal security forces.

Joint force air component commander (JFACC). The JFACC derives his authority from the joint forces commander (JFC) who has the authority to exercise operational control, assign missions, direct coordination among his subordinate commanders, redirect and organize his forces to ensure unity of effort in the accomplishment of his overall mission. The JFC will normally designate a JFACC. The JFACC's responsibility will be assigned by the JFC (normally these would include, but not be limited to, planning, coordination, allocation, and tasking based on the JFC's apportionment decision). Using the JFC's guidance and authority, and in coordination with other service component commanders and other assigned or supporting commanders, the JFACC will recommend to the JFC apportionment of air sorties to various missions or geographic areas.

Joint force commander (JFC). A general term applied to a commander authorized to exercise combatant command (command authority) or operational control over a joint force. (JMTGM# 070-1050-92)

Joint force land component commander (JFLCC). The commander within a unified command, subordinate unified command, or joint task force responsible to the establishing commander for making recommenda-

tions on the proper employment of land forces, planning and coordinating land operations, or accomplishing such operational missions as may be assigned. The JFLCC is given the authority necessary to accomplish missions and tasks assigned by the establishing commander. The JFLCC will normally be the commander with the preponderance of land forces and the requisite command and control capabilities. (JMTGM# 002-1369-93)

Joint force maritime component commander (JFMCC). The commander within a unified command, subordinate unified command, or joint task force responsible to the establishing commander for making recommendations on the proper employment of maritime forces and assets, planning and coordinating maritime operations, or accomplishing such operational missions as may be assigned. The JFMCC is given the authority necessary to accomplish missions and tasks assigned by the establishing commander. The JFMCC will normally be the commander with the preponderance of maritime forces and the requisite command and control capabilities. (JMTGM# 002-1369-93)

Joint force special operations component commander (JFSOCC). The commander within a unified command, subordinate unified command, or joint task force responsible to the establishing commander for making recommendations on the proper employment of special operations forces and assets, planning and coordinating special operations, or accomplishing such operational missions as may be assigned. The JFSOCC is given the authority necessary to accomplish missions and tasks assigned by the establishing commander. The JFSOCC will normally be the commander with the preponderance of special operations forces and the requisite command and control capabilities. (JMTGM# 002-1369-93)

Joint special operations air component commander (JSOACC). The commander within the joint force special operations command responsible for planning and executing joint special operations aviation missions and for coordinating and deconflicting such operations with conventional nonspecial operations air activities. The JSOACC normally will be the commander with the preponderance of assets and/or greatest ability to plan, coordinate, allocate, task, control, and support the assigned joint special operations aviation assets. The JSOACC may be directly subordinate to the joint force special operations component commander or to any nonspecial operations component or joint force commander as directed. (JMTGM# 002-1369-93)

Joint special operations area (JSOA). A restricted area of land, sea, and airspace assigned by a unified or subordinate unified commander or the commander of a joint task force to the commander of joint special operations forces to conduct special operations activities. The commander of joint special operations forces may further assign a specific area or sector within the joint special operations area to a subordinate commander for mission execution. The scope and duration of the special operations forces' mission, friendly and hostile situation, and politico-military considerations all influence the number, composition, and sequencing of special operations forces

deployed into a JSOA. It may be limited in size to accommodate a discrete direct action mission or may be extensive enough to allow a continuing broad range of unconventional warfare operations. (JMTGM# 002-1369-93)

Joint special operations task force (JSOTF). A joint task force composed of special operations units from more than one service, formed to carry out a specific special operation or prosecute special operations in support of a theater campaign or other operations. The JSOTF may have conventional nonspecial operations units assigned or attached to support the conduct of specific missions. (JMTGM# 002-1369-93)

Low-intensity conflict (LIC). Political-military confrontation between contending states or groups below conventional war and above the routine peaceful competition among states. It frequently involves protracted struggles of competing principles and ideologies. LIC ranges from subversion to the use of armed force. It is waged by a combination of means employing political, economic, informational, and military instruments. LIC conflicts are often localized, generally in third world, but contain regional and global security implications.

Low-visibility operations. Sensitive operations wherein the political-military restrictions inherent in covert and clandestine operations are either not necessary or not feasible; actions are taken as required to limit exposure of those involved and/or their activities. Execution of these operations is undertaken with the knowledge that the action and/or sponsorship of the operation may preclude plausible denial by the initiating power.

Marine expeditionary unit (special operations capable) MEU (SOC). A forward-deployed, embarked US Marine Corps unit with enhanced capability to conduct special operations. The MEU (SOC) is oriented toward amphibious raids, at night, under limited visibility, while employing emissions control procedures. The MEU (SOC) is not a secretary of defense designated special operations force but, when directed by the national command authorities and/or the theater commander, may conduct hostage recovery or other special operations under in extremis circumstances when designated special operations forces are not available. (JMTGM# 002-1369-93)

Maritime special purpose force (MSPF). A tasked-organized force formed from elements of a MEU (SOC) and naval special warfare forces that can be quickly tailored to a specific mission. The MSPF can execute on short notice a wide variety of missions in a supporting, supported, or unilateral role. It focuses on operations in a maritime environment and is capable of operations in conjunction with or in support of special operations forces. The MSPF is integral to and relies directly upon the MEU (SOC) for all combat and combat service support. (JMTGM# 002-1369-93)

Military operations other than war (MOOTHW). The range of military actions required by the national command authorities, except those associated with major combat operations conducted pursuant to declaration of war or authorized by the War Powers Limitation Act, in support of national security interests and objectives. These military actions can be applied to

complement any combination of the other instruments of national power and occur before and after war. (Draft AFDD 35)

Mobile training team (MTT). A team consisting of one or more US military or civilian personnel sent on temporary duty, often to a foreign nation, to give instruction. The mission of the team is to train indigenous personnel to operate, maintain, and employ weapons and support systems, or to develop a self-training capability in a particular skill. The national command authorities may direct a team to train either military or civilian indigenous personnel, depending upon host nation requests. (JMTGM# 002-1369-93)

National command authorities (NCA). The president and the secretary of defense or their duly deputized alternates or successors.

Naval special warfare (NSW). A specific term describing a designated naval warfare specialty and covering operations generally accepted as being unconventional in nature and, in many cases, covert or clandestine in character. These operations include using specially trained forces assigned to conduct unconventional warfare, psychological operations, beach and coastal reconnaissance, operational deception operations, counterinsurgency operations, coastal and river interdiction, and certain special tactical intelligence collection operations that are in addition to those intelligence functions normally required for planning and conducting special operations in a hostile environment. (JMTGM# 002-1369-93)

Naval Special Warfare Command (NAVSPECWARCOM). The naval command with responsibility for naval special warfare. (Author's definition)

Naval special warfare forces (NAVSOF). Those active and reserve component naval forces designated by the secretary of defense that are specifically organized, trained, and equipped to conduct and support special operations. (JMTGM# 002-1369-93)

Naval special warfare group (NSWG). The Navy organization to which most naval special warfare forces are assigned for some operational and all administrative purposes. It consists of a group headquarters with command and control, communication, and support staff, sea-air-land teams, special boat squadrons and subordinate special boat units, and sea-air-land team delivery vehicle teams. The group is the source of all deployed naval special warfare forces and administratively supports the naval special warfare units assigned to the theater CINCs. The group's staff provides general operational direction and coordinates the activities of its subordinate units. A NSWG is capable of task-organizing to meet a wide variety of requirements. (JMTGM# 002-1369-93)

Naval special warfare special operations component (NAVSOC). The Navy special operations component of a unified or subordinate unified command or joint special operations task force. (JMTGM# 002-1369-93)

Naval special warfare task group/unit (NSWTG/TU). Task organized elements that provide command, control, and communications for naval special warfare forces deployed in support of fleet commanders, special operations commands of unified and subordinate unified commands, and joint special operations task forces. (JMTGM# 002-1369-93)

Naval special warfare unit (NSWU). Permanently theater-deployed command element to control and support attached naval special warfare forces. (JMTGM# 002-1369-93)

Operational control (OPCON). Transferable command authority that may be exercised by commanders at any echelon at or below the level of combatant command (COCOM). OPCON is inherent in COCOM (command authority) and is the authority to perform those functions of command over subordinate forces involving organizing and employing commands and forces, assigning tasks, designating objectives, and giving authoritative direction necessary to accomplish the mission. OPCON includes authoritative direction over all aspects of military operations and joint training necessary to accomplish missions assigned to the command. OPCON should be exercised through the commanders of subordinate organizations; normally this authority is exercised through the service component commanders. OPCON normally provides full authority to organize commands and forces and to employ those forces as the commander in OPCON considers necessary to accomplish assigned missions. OPCON does not, in and of itself, include authoritative direction for logistics or matters of administration, discipline, internal organization, or unit training.

Overt operations. The collection of intelligence openly, without concealment. (Joint Pub 1-02) Operations conducted openly without concealment. (Joint Pub 3-05)

Paramilitary forces. Forces or groups which are distinct from the regular armed forces of any country, but resembling them in organization, equipment, training, or mission.

Pararescue team. Specially trained personnel qualified to penetrate to the site of an incident by land or parachute, render medical aid, accomplish survival methods, and rescue survivors.

Psychological operations (PSYOP). Planned operations to convey selected information and indicators to foreign audiences to influence their emotions, motives, objective reasoning, and ultimately the behavior of foreign governments, organizations, groups, and individuals. The purpose of PSYOP is to induce or reinforce foreign attitudes and behavior favorable to the originator's objectives.

Psychological warfare (PSYWAR). The planned use of propaganda and other psychological actions having the primary purpose of influencing the opinions, emotions, attitudes, and behavior of hostile foreign groups in such a way as to support the achievement of national objectives.

Rangers. Rapidly deployable airborne light infantry organized and trained to conduct highly complex joint direct action operations in coordination with or in support of other special operations units of all services. Rangers can also execute direct action operations in support of conventional nonspecial operations missions conducted by a combatant commander and can operate as conventional light infantry when properly augmented with other elements of combined arms. (JMTGM# 002-1369-93)

Sabotage. An act or acts with intent to injure, interfere with, or obstruct the national defense of a country by willfully injuring or destroying, or attempting to injure or destroy, any national defense or war material, premises, or utilities, to include human and natural resources.

Sea-air-land (SEAL) teams. A group of officers and individuals specially trained and equipped for conducting unconventional and paramilitary operations and to train personnel of allied nations in such operations including surveillance and reconnaissance in and from restricted waters, rivers, and coastal areas.

Search and rescue (SAR). The use of aircraft, surface craft, submarines, specialized rescue teams and equipment to search for and rescue personnel in distress on land or at sea.

Security assistance. Groups of programs authorized by the Foreign Assistance Act of 1961, as amended, and the Arms Export Control Act of 1976, as amended, or other related statutes by which the United States provides defense articles, military training, and other defense-related services, by grant, loan, credit, or cash sales, in furtherance of national policies and objectives.

Special activities. Activities conducted in support of national foreign policy objectives which are planned and executed so that the role of the US government is not apparent or acknowledged publicly. They are also functions in support of such activities but are not intended to influence US political processes, public opinion, policies, or media and do not include diplomatic activities or the collection and production of intelligence or related support functions. (JMTGM# 002-1369-93)

Special forces (SF). US Army forces organized, trained, and equipped specifically to conduct special operations. Special forces have five primary missions: unconventional warfare, foreign internal defense, direct action, special reconnaissance, and counterterrorism. Counterterrorism is a special mission for specially organized, trained, and equipped special forces units designated in theater contingency plans. (JMTGM# 002-1369-93)

Special mission unit (SMU). A generic term to represent a group of operations and support personnel from designated organizations that is task-organized to perform a specific mission. Often used to describe highly classified activities. (JMTGM# 002-1369-93)

Special operations (SO). Operations conducted by specifically organized, trained, and equipped military and paramilitary forces to achieve military, political, economic, or psychological objectives by unconventional military means in hostile, denied, or politically sensitive areas. These operations are conducted during peacetime competition, conflict, and war, independently or in coordination with operations of conventional, nonspecial operations forces. Political-military considerations frequently shape SO, requiring clandestine, covert, or low-visibility techniques and oversight at the national level. SO differ from conventional operations in the degree of physical and political risk, operational techniques, mode of employment,

independence from friendly support, and dependence on detailed operational intelligence and indigenous assets. (JMTGM# 002-1369-93)

Special Operations Command (SOC). A subordinate unified or other joint command composed of designated special operations forces that is established by a unified or other joint force commander to prepare for, plan, and execute, as directed, joint or single-service special operations within the joint force commander's assigned area of operations, or as directed by the national command authorities. (JMTGM# 002-1369-93)

Special operations forces (SOF). Military units of the Army, Navy, and Air Force which are designated for special operations, as that term is defined, and are organized, trained, and equipped specifically to conduct special operations. (JMTGM# 002-1369-93)

Special operations peculiar. Equipment, materials, supplies, and services required for special operations mission support for which there is no broad conventional force requirement It often includes nondevelopmental or special category items incorporating evolving technology but may include stocks of obsolete weapons and equipment designed to support indigenous personnel who do not possess sophisticated operational capabilities. (JMTGM# 002-1369-93)

Special operations weather team/tactical element (SOWT/TE). A task-organized team of Air Force personnel organized, trained, and equipped to collect critical weather observations from data-sparse areas. These teams are trained to operate independently in permissive or semipermissive environments, or as augmentation to other special operations elements in nonpermissive environments, in direct support of special operations. (JMTGM# 002-1369-93)

Special tactics team (STT). An Air Force team composed primarily of special operations combat control and pararescue personnel. The task of the team is to support joint special operations air, ground, or maritime missions by selecting, surveying, and establishing assault zones; providing assault zone terminal guidance and air traffic control; conducting direct action and personnel recovery missions; providing medical care and evacuation; and coordinating, planning and conducting air, ground, and naval fire support operations. (JMTGM# 002-1369-93)

Subversion. Action designed to undermine the miliary, economic, psychological, political strength, or morale of a regime.

Tactical control (TACON). The detailed and, usually, local direction and control of movements or maneuvers necessary to accomplish missions or tasks assigned.

Tailor. The act of designing an operating force, support staff, or logistics package of specific size and composition to meet a unique task or mission. Characteristics to examine when building the force include, but are not limited to: training, experience, equipage, sustainability, and mobility. (Air Force Manual 2-10)

Task-organizing. The act of designing and operating force, support staff, or logistics package of specific size and composition to meet a unique task or

mission. Characteristics to examine when building the force include, but are not limited to: training, experience, equipage, sustainability, operating environment, enemy threat, and mobility. (JMTGM# 002-1369-93)

Terrorism. The unlawful use or threatened use of force or violence against individuals or property to coerce or intimidate governments or societies, often to achieve political, religious, or ideological objectives.

Unconventional warfare (UW). A broad spectrum of military and paramilitary operations conducted in enemy-held, enemy-controlled, or politically sensitive territory. UW includes, but is not limited to, the interrelated fields of guerrilla warfare, evasion and escape, subversion, sabotage, and other operations of a low-visibility, covert, or clandestine nature. These interrelated aspects of UW may be prosecuted singly or collectively by predominantly indigenous personnel, usually supported and directed in varying degrees by (an) external source(s) during all conditions of war or peace.

United States Army Special Operations Command (USASOC). The major command with responsibility for special forces, civil affairs, psychological operations, Ranger, and special operations aviation within the Army. *(United States Special Operations Forces Posture Statement 1993)*

Appendix C

Acronyms

Knowing and using acronyms properly is one step toward building cohesion within special operations forces. This list includes acronyms used in this report or commonly encountered when working with special operations forces, special operations aviation, Air Force special operations, and the Air Force. This list is not all inclusive.

AATTC	Advance Airlift Tactics Training Course
AC	active component (concerning force structure)
ACC	Air Combat Command
	air component commander
AFCC	Air Force component commander
AFDC	Air Force Doctrine Center
AFDD	Air Force Doctrine Document
AFM	Air Force manual
AFFOR	Air Force forces
AFPD	Air Force policy directive
AFR	Air Force regulation
AFRES	Air Force Reserve
AFSOB	Air Force special operations base
AFSOC	Air Force Special Operations Command
	Air Force special operations component
AFSOD	Air Force special operations detachment
AFSOE	Air Force special operations element
AFSOF	Air Force special operations forces
AFWI	Air Force Wargaming Institute
AMC	Air Mobility Command
ANG	Air National Guard
AOC	Air Operations Center
AOR	area of responsibility
ARFOR	Army forces
ARSOA	Army special operations aviation
ARSOC	Army special operations component
ARSOF	Army special operations forces
AT	antiterrorism
AVN	aviation
BCTP	Battle Command Training Program

BBS	brigade/battalion battle simulation
BSTS	Battle Staff Training School (USAF)
CADRE	College of Aerospace Doctrine, Research and Education
CAS	close air support
CATS	Combat Aircrew Training School
CEI	Combat Employment Institute
CCT	combat control team
CINC	commander in chief
CJCS	chairman, Joint Chiefs of Staff
CN	counternarcotics
COCOM	combatant command (command authority)
COHORT	cohesion, operational readiness training
COMAFSOC	commander, Air Force Special Operations Command
COMARFOR	commander, Army forces
COMJTF	commander, joint task force
COMNAVFOR	commander, naval forces
COMSOC	commander, Special Operations Command
CONVL	conventional
CPX	command post exercise
CSAF	chief of staff, Air Force
CSAR	combat search and rescue
CT	counterterrorism
DA	direct action
DOD	Department of Defense
DZ	drop zone
E&E	evasion and escape
FARP	forward arming and refueling point
FID	foreign internal defense
FM	field manual
FOB	forward operating base
FTX	field training exercise
GW	guerrilla warfare
HA	humanitarian assistance
HAHO	high-altitude high-opening (parachute technique)
HALO	high-altitude low-opening (parachute technique)
HQ USAF/XOX	Headquarters Air Force, Director of Plans
HQ USAF/XOXD	Headquarters Air Force, Doctrine Division
ISOC	Introduction to Special Operations Course
JCS	Joint Chiefs of Staff
JDC	Joint Doctrine Center
JFACC	joint force air component commander
JFC	joint force commander

JFK SWCS	John F. Kennedy Special Warfare Center and School
JFLCC	joint force land component commander
JFMCC	joint force maritime component commander
JFSOCC	joint force special operations component commander
JMETL	joint mission essential task list
JRT	joint readiness training
JSOACC	joint special operations air component commander
JSOAP	Joint Special Operations Awareness Program
JSOFI	Joint Special Operations Forces Institute
JSOPW	Joint Special Operations Planning Workshop
JSOSIC	Joint Special Operations Integration Committee
JSOSOC	Joint Special Operations Staff Officer Course
JSOTF	joint special operations task force
JTF	joint task force
JTTP	joint tactics, techniques, and procedures
JWFC	Joint Warfighting Center
LIC	low-intensity conflict
LOG	logistics
LZ	landing zone
MAC	Military Airlift Command (now ACC)
MARFOR	Marine forces
MCEP	Major Coordinated Exercise Program
MEU (SOC)	marine expeditionary unit (special operations capable)
METL	mission essential task list
MFF	military free fall
MOB	main operating base
MOS	military occupational specialty
MTT	mobile training team
NAF	numbered air force
NAVFOR	Navy forces
NAVSOC	naval special warfare special operations component
NAVSOF	naval special operations forces
NAVSPECWARCOM	Naval Special Warfare Command
NAVTAG	Naval Tactical Game
NCA	national command authorities
NDC	Naval Doctrine Command
NEO	noncombatant evacuation operation
NSC	National Simulation Center (USA)
NSW	naval special warfare
NSWC	Naval Special Warfare Center
NSWG	naval special warfare group
NSWTG/TU	naval special warfare task group/unit
NSWU	naval special warfare unit
OCA	offensive counterair

OD	operational detachment
ODA	operational detachment-alpha
OPCON	operational control
OPS	operations
PCE	professional continuing education
PJ	pararescue
PME	professional military education
PSYOP	psychological operations
PSYWAR	psychological warfare
RC	reserve component (concerning force structure)
SA	security assistance
SAR	search and rescue
SBU	special boat unit
SEAL	sea-air-land (team)
SF	special forces
SFG	special forces group
SFOB	special forces operating base
SFOD-A/B/C/D	Special Forces detachment
SO	special operations
SOAIP	Special Operations Aircrew Interfly Program
SOAP	Special Operations Aircrew Planning
SOAR	Special Operations Aviation Regiment
SOC	Special Operations Command
SOCCE	special operations contingency communications elements
SOCCENT	Special Operations Command, Central
SOCCT	special operations combat control team
SOCEUR	Special Operations Command, Europe
SOC-K	Special Operations Command, Korea
SOCLANT	Special Operations Command, Atlantic
SOCPAC	Special Operations Command, Pacific
SOCSOUTH	Special Operations Command, South
SOF	special operations forces
SOG	special operations group
SOPJ	special operations pararescue personnel
SOS	Special Operations School special operations squadron
SOUTHCOM	Southern Command (US)
SOW	special operations wing
SOWT/TE	special operations weather team/tactical element
SR	special reconnaissance
SRC	search and rescue center
STGP	special tactics group
STS	special tactics squadron
STT	special tactics team

TA	terrain avoidance
TAC	Tactical Air Command (now ACC)
TACC	theater air control center
TACON	tactical control
TACS	theater air control system
TEWT	Tactical Exercise without Troops
TF	terrain following
TRADOC	US Army Training and Doctrine Command
TTP	tactics, techniques, and procedures
USAFSOF	USAF special operations forces
USAF SOS	USAF Special Operations School
USASOC	United States Army Special Operations Command
USC	United States Code
USCINCSOC	commander in chief, United States Special Operations Command
USSOCOM	United States Special Operations Command
UW	unconventional warfare

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