

United States Marine Corps
Command and Staff College
Marine Corps University
2076 South Street
Marine Corps Combat Development Command
Quantico, Virginia 22134-5068

MASTER OF MILITARY STUDIES

TITLE:
TACTICAL AIR CONTROL PARTY SUPPORT IN DISTRIBUTED AND SPECIAL
OPERATIONS

SUBMITTED IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF MILITARY STUDIES

AUTHOR:
MAJOR JAMES A SCHNELLE

AY 07-08

Mentor and Oral Defense Committee Member: Paul D. Grube, Jr.

Approved: [Signature]

Date: 6 MAY 2008

Oral Defense Committee Member: [Signature]

Approved: [Signature]

Date: 6 May 2008

Report Documentation Page

Form Approved
OMB No. 0704-0188

Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.

1. REPORT DATE 2008		2. REPORT TYPE		3. DATES COVERED 00-00-2008 to 00-00-2008	
4. TITLE AND SUBTITLE Tactical Air Control Party Support in Distributed and Special Operations				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S)				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) United States Marine Corps Command and Staff College, Marine Corps University, 2076 South Street, Marine Corps Control Development Command, Quantico, VA, 22134-5068				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution unlimited					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT Same as Report (SAR)	18. NUMBER OF PAGES 43	19a. NAME OF RESPONSIBLE PERSON
a. REPORT unclassified	b. ABSTRACT unclassified	c. THIS PAGE unclassified			

Executive Summary

Title: Tactical Air Control Party Support in Distributed and Special Operations

Author: Major James A. Schnelle, United States Marine Corps

Thesis: The United States Marine Corps (USMC) should embrace the Distributed Operations concept. The innate Tactical Air Control Party support built around the Air Officer, Forward Air Controller, Joint Terminal Attack Controller, and newly proposed Joint Forward Observer, is able to liaison in the best interests of the ground commander. Remaining true to the core strength of the Marine Air-Ground Task Force, staffing, educating, and equipping conventional units to be able to execute Distributed Operations in the littoral regions of the "arc of instability" will enable United States success in the Long War.

Discussion: The Marine Corps is the United States' choice expeditionary force. The expeditionary strength of the Marine Corps is exemplified in the Marine Corps Air-Ground Task Force (MAGTF). The MAGTF of choice to support Combatant Commands' Theater Security Cooperation Plans is the Marine Expeditionary Unit (Special Operations Capable). United States Special Operations Forces (SOF) have all requisite skills and strengths to support when partner nations request a small US presence. However, due to operational tempo of SOF units and the continued large demand for forces by the Theater Security Cooperation Plans, the Marine Corps can alternatively be utilized to support. Inherent to both the MAGTF and SOF is the ability to utilize kinetic or non-kinetic airpower when required. The liaison position in the ground unit is filled by an Air Officer, Forward Air Controller or Joint Terminal Attack Controller. To continue support of the heavy unit demand from a wide range of US national interests, USMC Distributed Operations can support in environments conducive to overt US military presence. National interests fostered through Combatant Commands' Theater Security Cooperation Plans continue to foster stability in nations within the "arc of instability". However, resolute security needs persevering engagement to ensure indigenous population security and developing nation prosperity. Marine Corps Distributed Operations and US Special Operations Forces supported by airpower are capable of synchronization and burden sharing of Small War commitment in the "arc of instability".

Conclusion: Leveraging airpower in support of USMC expeditionary operations has been an intrinsic strength since the advent of aircraft. In the Long War against violent extremism, specifically in the Department of Defense's focus on Theater Security Cooperation, it is imperative for the Marine Corps to continue to provide Combatant Commands units with imbedded personnel, capable of integrating airpower in Distributed and Special Operations.

DISCLAIMER

THE OPINIONS AND CONCLUSIONS EXPRESSED HEREIN ARE THOSE OF THE INDIVIDUAL STUDENT AUTHOR AND DO NOT NECESSARILY REPRESENT THE VIEWS OF EITHER THE MARINE CORPS COMMAND AND STAFF COLLEGE OR ANY OTHER GOVERNMENTAL AGENCY. REFERENCES TO THIS STUDY SHOULD INCLUDE THE FOREGOING STATEMENT.

QUOTATION FROM, ABSTRACTION FROM, OR REPRODUCTION OF ALL OR ANY PART OF THIS DOCUMENT IS PERMITTED PROVIDED PROPER ACKNOWLEDGEMENT IS MADE.

Preface

I became interested in the improvements in the Marine Corps Tactical Air Control Party process of support to the ground commander during my tour as a Force level Inspector-Instructor (I-I) at 3d Air Naval Gunfire Liaison Company. Due to my location in Southern California and the unit's requirement to augment the active duty ANGLICOs with FACs, JTACs and Company and Battalion level Fire Support Coordination Teams, I had a fantastic opportunity to observe potential means and method to do so. Working with the Expeditionary Warfare Training Groups in Coronado, CA and Little Creek, VA, and the Naval Strike Air Warfare Center in Fallon, NV, 3d ANGLICO was able to build three detachments during my two years time on station.

Prior to the ANGLICO tour, I flew multiple AV-8B CAS sorties in support of ground training, exercises, and combat operations. Being involved in five Marine Expeditionary Unit (Special Operations Capable) deployments to the Western Pacific, Indian Ocean, and Arabian Gulf, I realize how much the USMC Marine Air-Ground Task Force can offer to Combatant Commanders, the Department of Defense, and to the national interests of the United States of America. I view this paper as an opportunity to give mid-career level thoughts towards the ability of the USMC to leverage airpower through existing and developing liaison personnel to support the Ground Combat Elements mission.

This project would have never gotten started if I was not given the opportunity to serve at ANGLICO. My immediate commanders and professional mentors while at 3d ANGLICO were Colonel Dennis Cunniffe and Lieutenant Colonel Greg Martin. The USMCR Air Officers whom I worked with to build JTACs at 3d ANGLICO were Major Mark "Skip" Larsen, Lieutenant Colonel Mark "Sledge" Seilhamer, and Lieutenant Colonel Roland "Moose" Stenberg. In-depth TACP planning, execution, and their many personal sacrifices helped put three deployments of JTACs (3 FACs and 18 JTACs) and Fires Liaison Teams into Active Duty ANGLICO units for deployment to Operation Iraqi Freedom as well as support of PACOM and EUCOM exercise, to include BALIKATAN, COBRA GOLD, TALISMAN SABRE, ULCHI FOCUS LENS, BRIGHT STAR and BURMESE CHASE. While at 3d ANGLICO, the value of discussion in all operational planning and execution cannot be overstated.

Personnel at EWTGPAC whom I discussed TACP training issues at length were Lieutenant Colonel Steve "Psycho" Wilson and Major William "Spyder" Talansky. Marine Aviation Weapons and Tactics Squadron One Air Officer Department Heads, Majors Douglas "Oedi" Glover and Monte "Mongo" TenKley were significant sources of graduate level expertise. A particular note is expressed to an ANGLICO JTAC subject matter expert and SOTACC instructor, who shared sound thoughts and advice, John Dillard, Master Sergeant, USMC (Ret).

I am deeply indebted to all of these military professionals. Their thoughts, reflections, and poignant insights continue to mold my personal beliefs on this subject as well as many other related airpower, training, and leadership subjects. I look forward to future related and un-related dialogue.

I would also like to thank my mentor Dr. Paul Gelpi for his patience, assistance, and guidance in the completion of this project. Finally, to my family, a huge debt of gratitude is owed which cannot be re-paid for enduring the entire process to include I-I duty and the writing of this paper.

Table of Contents

	Page
DISCLAIMER.....	i
PREFACE.....	ii
TABLE OF CONTENTS	iii
INTRODUCTION - EVOLUTION OF THE TACTICAL AIR CONTROL PARTY	1
THE TACP SKILL SET DEFINED.....	4
AIRPOWER IN SMALL WARS EXECUTION	8
JOINT OPERATIONS PHASING.....	11
SPECIAL OPERATIONS	12
DISTRIBUTED OPERATIONS	20
CONCLUSION - SYNTHESIS AND RECOMMENDATIONS	26
CITATIONS AND ENDNOTES	29
APPENDIX A: TACP MISSION ESSENTIAL TASKS.....	32
BIBLIOGRAPHY	37

Introduction – Evolution of the Tactical Air Control Party

Leveraging airpower in support of United States Marine Corps (USMC) expeditionary operations has been an internal strength since the advent of aircraft. Coordination between the supported ground force and the supporting aviation element continues to evolve. Continued evolutionary success is heavily dependent on the Marine concept of “every Marine a rifleman” as well as advances in equipment used in conjunction with Air-Ground coordination. As we move forward in the Long War, it is imperative that the Marine Corps continues to provide Combatant Commands units with imbedded personnel who are capable of integrating airpower in all operations. Conventional and unconventional operations need personnel capable in tactics, techniques, and procedures of both the ground and aviation element; the necessary depth of that knowledge depends on the specific operation and operating environment. Air Officers (AirOs), Forward Air Controllers (FACs), Joint Terminal Attack Controllers (JTACs) and Joint Forward Observers (JFOs) all have strengths to provide the ground element with necessary liaison. It is the Marine Corps’ responsibility to ensure the Combatant Command is knowledgeable in the strengths and weaknesses of each TACP member and what operational environment they are capable of executing liaison to ensure seamless airpower support.

From the report of the Commanding Officer, Marine Detachment, Ocotal, Nicaragua, the effects of the air support during the fight with guerilla forces under Augusto C. Sandino on July 16th, 1927 was the “deciding factor” in repulsing the attack. An excerpt from the commander’s after action states, “two planes arrived overhead at 10:15 a.m.,”¹ approximately nine hours after the beginning of the assault on the Marine Detachment’s defensive. The section of aircraft caught the messages of the Marine Detachment and fired bursts of machine gun fire at assaulting guerillas. One aircraft departed at about 10:30 a.m., while the other remained until 11:00 a.m.

Later, five aircraft came over at about 2:35 p.m., firing machine guns and dropping bombs until 3:20 p.m. "The air attack was the deciding factor in our favor, for almost immediately after the firing slacked and troops began to withdraw."² Other air support leveraged during the Nicaraguan campaign included Reconnaissance, Re-supply and Casualty Evacuation (CASEVAC). The required liaison to ensure appropriate support for the ground force was completed by integrated planning.

During the latter part of World War II, significant strides were made to put to use lessons learned from pre-war training as well as from previous experience during the Pacific campaign. In October of 1944, the First Marine Air Wing tasked Marine Air Group (MAG) 24 and 32 as a consolidated group to "make preparations for a Philippines campaign to give close air support to Army ground forces."³ In preparation to support, analysis of close support revealed lack of standardization across USMC ground and aviation communities and ultimately led to the creation of the initial USMC doctrine. In the *Evaluation of Air Operations affecting the U.S. Marine Corps in World War II*, published in October of 1945, the progression of Close Air Support doctrine as well as tactics, techniques and procedures was tracked from the amphibious operation on Bougainville (August 1942) to the Okinawa Operation (April 1945). Aerial interdiction, air superiority, close air support, delivery of supplies, casualty evacuation and air-ground liaison were discussed in detail.

Prior to November 1943, the rudimentary Air Liaison Element was utilized, but it wasn't until Tarawa Operation that the "Landing Force unit, down to and including the Battalion was provided an air liaison team comprised of Marine and Navy personnel...for the purpose of assisting the unit commander in selection of suitable air targets, and conveying the target designations to the Support Aircraft Commander at each objective."⁴ In after action reports, it

was highlighted that close air support control should be standardized and trained to across the USMC. Lessons learned after the Iwo Jima Operation (February 1945) highlighted that "Close air support, as practiced by the Marine Corps and Navy, contributed materially to the success of the operation, and is founded on sound doctrine."⁵

However, in the Tarawa after action, it was noted that there was a "need for some form of coordinating body to resolve the operating problems of air, naval gunfire and artillery."⁶ During the Philippines Operation, the combined aviation element of MAG-24 and 32, found that Air Liaison Parties (ALPS) attached to infantry units were most successful when staffed by Joint Assault Signal Company (JASCO) or when "available aviators were attached to act in an advisory capacity."⁷ Today, "available aviators" trained as FACs are utilized in integrated positions at the Company, Battalion, Regiment, Division and Force levels in the Marine Corps. JASCO was the precursor to the Air Naval Gunfire Liaison Company (ANGLICO) which today utilizes "available aviators" as Forward Air Controllers (FACs) and Joint Terminal Attack Controllers (JTACs) to accomplish the liaison mission with Joint and/or Combined forces.

Prior to the 2005 USMC Tactical Air Control Party (TACP) Training and Readiness (T&R) Manual, ANGLICO successfully used Artillery, Infantry, and Communication Officers and Staff Non-Commissioned Officers to execute the job of air-ground liaison. Additionally, the Air Force has supplied the Army with JTACs for many years. So, with history of ground officers and SNCOs filling billets in ANGLICO, the Fleet Marine Force worked with Headquarters Marine Corps to enable the ground commander a viable option to create incumbent aviation liaison expertise beyond assigned FACs.

Ground units in today's combat environment require support of an expert in air-ground liaison. All units need a member of their unit capable of supporting ground operations with

airpower. Airpower support for the ground combat element ranges from assault support to integration of aviation fire during ground maneuver. Depending on the type of operation, the specific core skill requirements vary from what is incumbent in an Air Officer to what is incumbent in a Forward Observer. As examined within, the individual's core skills involved in Special Operations and Distributed Operations is not necessarily a JTAC's skill set.

The TACP Skill Set Defined

The USMC Tactical Air Control Party (TACP) Training and Readiness (T&R) Manual that first included reference to the Joint Terminal Attack Controller (JTAC) was approved as interim, 1 February 2005. The interim T&R Manual separated the skill sets succinctly between a FAC and a JTAC. Both were defined as qualified to conduct Terminal Attack Control (TAC) and Terminal Guidance Operations (TGO). A FAC was further expected to execute liaison between the Ground Commander and the supporting air component(s). In a Marine Battalion, the senior FAC, designated as the Air Officer (AO or AirO), was the primary aviation expert in tactical and operational planning.⁸

The current USMC TACP T&R Manual, effective 1 October 2007, defines not only the JTAC, FAC and AO, but also includes definitions for a Qualified Observer and Radio Operator. The definitions continue to mature the TACP relationship within Marine Units. The actual relationship has not evolved much beyond what previously existed, but the latest T&R enables commands to be more effective in execution of Terminal Attack Control and Terminal Guidance Operations. Additionally, the current T&R succinctly defines for the Combatant Commands who gain and exercise USMC Units, the significant core skills at his command's disposal.

The JTAC continues to be defined as an Officer or Staff Non-Commissioned Officer with core skills in TAC and TGO. The definition goes further to clarify that the JTAC coordinates,

integrates, and directs actions of combat aircraft engaged in Close Air Support and other offensive air operations. The definition of a FAC encompasses that of a JTAC, but as in the 2005 manual, the FAC responsibilities expand to include the integration of all aviation assets in support of maneuver elements and the liaison responsibility between aviation and ground units.⁹

The AirO's responsibilities include those of a FAC. As the senior FAC, after completion of Core Skill Advanced training, he is designated by the Commander as the AirO.¹⁰ His responsibilities expand to be the primary advisor to the Commander for integration of all functions of aviation with the unit's ground combat operations. Additionally, the AirO is responsible for the management of training, employment and most importantly, the standardization of the unit FACs and JTACs. The Core Skill Advanced training, executed under the supervision of the Marine Air Weapons and Tactics Squadron One (MAWTS-1) Air Officer Division, enables AirOs to maintain standardization of all FACs and JTACs in the Marine Corps.

Providentially, the new T&R successfully defines responsibilities of a vital member of the TACP, the Radio Operator (RO). Beyond his responsibilities for reliable, secure communications as a trained 0621, he is responsible to the TACP to ensure members are trained to use all communications gear efficiently. Additionally, the RO (as well as all other members of the TACP) must also have the requisite skills to utilize all assigned equipment and assets to acquire targets to efficiently bring to bear aviation (and indirect) fires.¹¹

In the latest T&R and in-line with Joint efforts, an additional defined tool of the TACP is the Qualified Observer. The Qualified Observer is any Marine qualified under established standards, to act as an observer for a JTAC during Type II or Type III Terminal Attack Control engagements.¹² Established standards are not yet defined in the T&R but are being vetted in ongoing discussions between the Expeditionary Warfare Training Groups (EWTGs), MAWTS-1,

the USMC Training and Education Command (TECOM), the USMC Artillery Organizational Advocacy Group (OAG), and the USMC ANGLICO OAG. The Marine Corps' current vision is for Qualified Observer standardization to start with what is being taught at the Artillery Scout Observer Class (Ft. Sill, Oklahoma) and the EWTG's Fire Support Man Course and Naval Gunfire Liaison Officer Course. The Qualified Observer standardized training will expand to include an aviation fires expertise section taught in conjunction with the current curriculum at Ft. Sill and the EWTGs.

To further discussion, core skills requisite by the TACP are best defined as Duty Areas and Mission Essential Tasks (METs). TACP METs (as defined in the TACP T&R) are attached as Appendix A. Duty Areas, with the proposed core skill applicability for the TACP follows (mastery of the duty area is indicated by the number one, and a familiarity is indicated by the number two):

No.	Duty Area	Requisite Core Skill			
		AirO	FAC	JTAC	Qualified Obs
1.	CAS Planning	1	1	1	2
2.	CAS Preparation	1	1	1	1
3.	CAS Execution	1	1	1	1
a.	Terminal Attack Control	1	1	1	2
b.	Terminal Guidance Operations	1	1	1	1
4.	Casualty Evacuation (CASEVAC)	1	1	1	1
5.	Electronic Warfare (EW)	1	2		
6.	Assault Support	1	1	1	2
7.	Aerial Reconnaissance (AR)	1	1	1	
8.	Anti-Air Warfare (AAW)	1	2		
9.	Aviation Fires	1	1	1	2
10.	Air Advisor	1	2	2	
11.	TACP Training	1	2	2	

1 – Core skill mastery required for effective support of Combat Operations

2 – Core skill familiarity required for effective support of Combat Operations

The Joint Close Air Support Executive Steering Committee, upon request from the 3rd Infantry Division for a "JTAC apprentice," initiated the Joint Fires Observer (JFO) concept,

similar in function to the newly defined USMC Qualified Observer.¹³ The JFO Memorandum of Agreement (MOA) was signed by the United States Army (USA), the United States Air Force (USAF) and United States Special Operations Command (USSOCOM). The United States Navy (USN) and the USMC are continuing to study feasibility of the program, so they are not signatories. The four key JFO duty areas identified by the MOA are engagement of ground targets with surface-to-surface fires, naval surface fires, and air-to-ground fires in conjunction with a JTAC and terminal guidance operations. For the benefit of the Joint community, the JFO MOA standardizes JFO qualification, certification, and currency requirements.

In support of the maneuver element, JTACs, FACs and AirOs must be proficient in Terminal Attack Control utilizing terminal guidance equipment inherent to the TACP. Contributing to a JTAC's successful control is adept CAS planning and preparation, skilled Armed Reconnaissance planning and control, as well as authoritative knowledge of Aviation Fire's capabilities and restrictions. The Qualified Observer, while under observation of the JTAC, FAC, or AirO, contributes to CAS preparation and ultimately performs terminal guidance with inherent TACP equipment. Key to the Qualified Observer's role in CAS is his expertise in conduct of Terminal Guidance and a keen understanding of Aviation Fire's capabilities and restrictions.

In conventional operations, with numerous large maneuver forces, the battlespace can be incredibly crowded. Dexterous and agile capability to deconflict ground maneuver forces and fires (indirect and aviation) is necessary for a successful TACP in support of the Ground Commander. The maneuver warfare answer is straight forward, but in analysis of airpower liaison in Distributed and Special Operations, the answer is not as clear. An analysis of mission sets within Distributed Operations and Special Operations is needed prior to provide the answer.

Before turning to mission set analysis, basic definitions of airpower used to support operations and Joint Operational Phasing are provided.

Airpower in Small Wars Execution

Airpower to support both Distributed and Special Operations can be broken down simply as Aerial Reconnaissance, Anti-Air Warfare, Assault Support, Control of Aircraft and Missiles, Electronic Warfare and Offensive Air Support.¹⁴ These functions enable support of the ground commander by the aviation elements involved in the operation as well as those outside the immediate area. The capable aviation staff officer, with knowledge of the extensive support available from tactical and strategic platforms, can build the commander's situational awareness and set the conditions for success by the ground element.

Aerial Reconnaissance (AR) can be either strategic or tactical in nature. AR provides the ground commander the best possible situational awareness on risks inherent to the force.¹⁵ National and Theater asset support can be requested, but the platforms are not readily tasked due to priorities beyond the immediate operation. Fortunately, tactical reconnaissance assets available continue to increase in numbers and type. Beyond traditional reconnaissance assets, any platform can provide reconnaissance; all platforms flying regularly in the operation's environment should have knowledge of the ground commander's critical and priority information requirements as well as the commander's intent. With that knowledge, aircrew initiative can provide information that could prove vital to operational success.

The primary purpose of Anti-Air Warfare (AAW) is to gain and maintain air superiority.¹⁶ Without a minimum of local air superiority, any ground operation executed is in jeopardy of not being successful. In an effort to gain air superiority, pre-emptive air operations are executed using integrated interdiction packages. Fighter sweep, combat air patrol, air, naval

or ground Suppression of Enemy Air Defense (SEAD), escort/self-escort missions and on-board countermeasures enable aviation assets to work in a partially prohibitive environment until such time that air superiority can be gained. These operations are not in direct support of the ground force, however, will be accomplished prior to or in conjunction with ground operations.

Assault support provides the commander operational and tactical mobility as well as flexible logistics support.¹⁷ Through assault support, the commander is able to mass combat power at the time and place of his choice, using speed and surprise. Massing friendly strength at the decisive point becomes more viable with the flexibility of assault support. Assault support is broken down into the following categories: Combat Assault, Air Delivery, Aerial Fueling, Air Evacuation, Tactical Recovery of Aircraft and Personnel (TRAP), Air Logistical Support, and Battlefield Illumination.¹⁸

Control of Aircraft and Missiles, or more simply stated, Command and Control, is the link used by the Tactical Air Control Party to enable communication between the ground commander and the aviation element. "The coordinated employment of facilities, equipment, communications, procedures, and personnel" enables the aviation commander to "plan, direct and control"¹⁹ the aviation element in support of the ground element. Through Command and Control, unity of effort and a common operating picture between the aviation and ground elements is maintained to ensure success on the chaotic battlefield.

Electronic Warfare (EW) is executed in the tactical, operational, and strategic levels of war. "EW can deny, degrade, disrupt, or destroy enemy command and control, thereby shattering enemy cohesion."²⁰ EW can be integrated heavily into all operational Warfighting functions, and is broken down into Electronic Warfare Support (ES), Electronic Attack (EA), and Electronic Protection (EP). EW can be utilized in Maneuver for assault support escort, in

Intelligence for collection and monitoring, in Fires for jamming, kinetic strike, non-kinetic strike, and PSYOPS and in Force Protection to deceive through transmission and bulk chaff delivery while also providing SEAD and jamming capability. All of these capabilities can be utilized by the ground commander to “shatter the enemy’s cohesion through a series of rapid, violent, and unexpected actions which create a turbulent and deteriorating environment for the enemy.”²¹

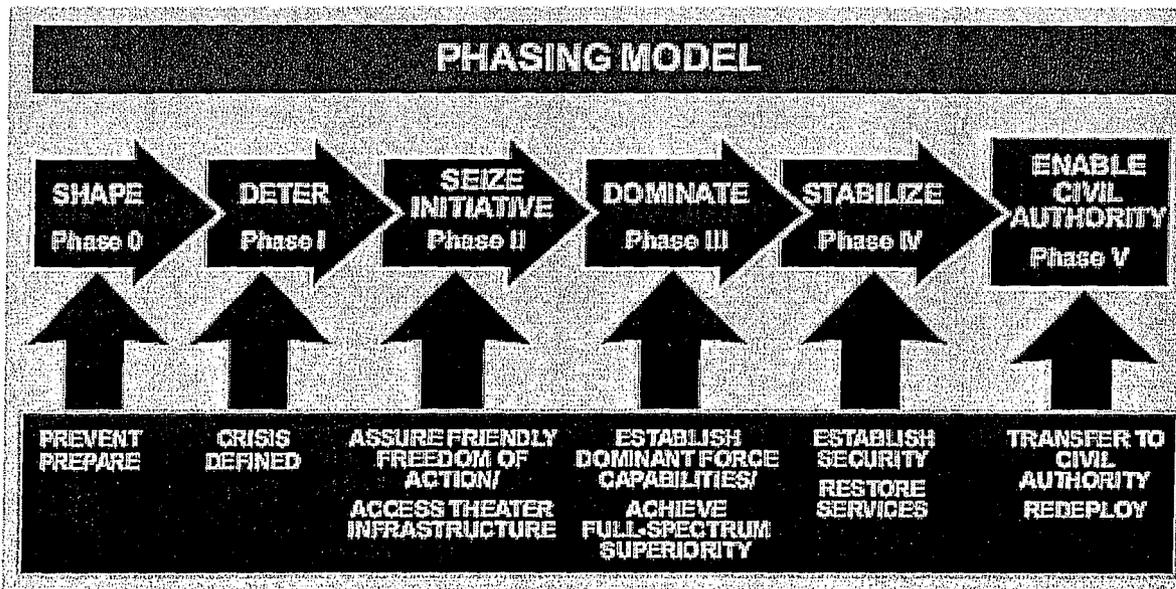
Offensive Air Support supports the ground commander through Armed Reconnaissance (AR), Strike Coordination and Reconnaissance (SCAR), and Close Air Support (CAS). In order to provide these kinetic operations, local air superiority is preferred, however, can be executed in coordination with other aviation or ground SEAD assets. The kinetic capability of air cannot be overstated. It is integral to the combined arms available to the ground commander. AR and SCAR can shape the battlefield as well as attrite enemy forces before they can affect the ground element. “Requiring detailed integration” due to the close proximity of ground forces, CAS has a more immediate and intimate affect by “concentrating firepower at the decisive place and time to achieve local combat superiority.”²²

In codifying airpower support applicable to Distributed and Special Operations, looking at aviation support in Small Wars is appropriate because both are ingrained in the principles of Small Wars. The indirect application of airpower in a supporting role is at the core of Small War airpower support.²³ Due to the environment involved with Distributed and Special Operations, unobtrusive airpower missions of transportation (force and logistics), reconnaissance, PSYOPS, and communications are applicable for mission success. As the Small War becomes more conventional, the direct application of airpower manifested in strike missions (surgical interdiction and close air support) is necessary to mass support fires to ensure success of the small maneuver force.

Leverage of newly developed aviation technology is correct to apply in support of operations. Use of night vision technology, unmanned aerial vehicles, space-based reconnaissance and navigation assets as well as precision guided weapons will ensure appropriate response without being overly overt in execution.²⁴ Conversely, use of rugged and time proven aircraft is a force multiplier in austere environments.²⁵ Evolutionary aircraft do not perform well over the long-term outside of a “clean” environment. Additionally, in order to set conditions for enduring missions, low-tech aircraft will enjoy superior performance. An appropriate mix of technology and proven gear will enable airpower support to be ready when needed by the forces executing Distributed or Special Operations.

Joint Operations Phasing

Joint Publication 3-0, Joint Operations, provides a flexible model that Combatant Commands and/or the Joint Force Commands can use in formulating various campaigns or operations.²⁶ The phasing model from JP 3-0 is graphically shown below.



Initiative seizure (Phase II) and environmental domination to achieve superiority (Phase III) are the most likely phases to encompass major combat operations. Normally deterrence and

stabilization operations are not significantly kinetic; however, when transitioning to Phase II or from Phase III operations, the environment can prove to be volatile. Shaping and transference to civil authority operations, if executed correctly, are not kinetic in nature.

Special Operations

In analysis of how best to support Special Operations (SO) with airpower, it is necessary to understand the missions or core activities which Special Operations Forces (SOF) execute and the personnel who comprise SOF. SOF focuses on the tenet that “humans are more important than hardware” as well as the fact that “quality is better than quantity”.²⁷ SO has a strategic focus that facilitates operations designed to influence the political will of a foreign leader, government, or people, creating conditions favorable to the United States.

SOF works just as comfortably in environments that require overt, clandestine, or covert operations due to national wills and perceptions. Additionally, maturity and a knack for getting the job done enables SOF to work comfortably using the full spectrum instruments of national power: Diplomatic, Information, Economic, and Military. Due to education and maturity, SOF regularly set aside individual agendas to enable host nation indigenous people to solve their own internal issues. Special Operations Forces are uniquely qualified to be a force multiplier working in the best interests of both the host nation and the United States.

SOF are capable of conducting a wide range of operations in conventional war and in Military Operations Other Than War (MOOTW). From planning to execution to de-brief, SOF leaders and operators are thoroughly educated to work in the dynamic and complex Joint, Inter-Agency, Combined and Coalition world. Additionally, they are well-suited to work side-by-side with Non-Government Agencies and Developing Nations.

SOF personnel undergo a selective indoctrination process to ensure appropriate maturity and baseline military skill sets are inherent prior to continuing in the SOF training and education pipeline. Mission-specific training enables the mature and experienced personnel to become highly competent in more than one military specialty. Appropriately primed, further education ensures SOF are capable of crossing cultural boundaries by orienting training towards a region often for which the individual is best suited. Developing SOF personnel is not rapid; it requires patience to allow the extensive training required and the apt maturation.

SOF Core Tasks include direct action, special reconnaissance, foreign internal defense, unconventional warfare, counterterrorism, counter-proliferation of weapons of mass destruction, civil affairs operations, psychological operations, and information operations.²⁸ These core tasks, detailed discussion to follow, all require airpower support. How that air supports, who comprises the aircrew supporting the missions, and the nature (overt, clandestine or covert) of the SOF mission dictates the level of aviation liaison needed to be imbedded in the SOF team. Different operations dictate different air liaison skill sets required to support.

Direct Action (DA) operations are characteristically short-duration strikes conducted in hostile, denied or politically sensitive environments which employ specialized military capabilities to seize, destroy, capture, exploit, recover, or damage designated targets. A higher level of political and physical risk, operational technique and the degree of discriminate and precise use of force to achieve the objective is what differentiates DA from a conventional offensive action.²⁹ DA is further expanded to five categories.

DA raids, ambushes, and direct assaults are different in Special Operations as they have specific, time sensitive results that require strike capabilities beyond a conventional force. These operations do not always require incumbent JTAC core skills to support the maneuver with aerial

reconnaissance and aviation fires. Air power is a significant fires support consideration, however, due to the limited maneuver forces involved, the full range of JTAC core skills are not required. Appropriate comprehension of Airpower, knowledge on CAS preparation and execution, TGO capability, and CASEVAC familiarity are core skills needed to support.

DA stand-off attacks are particularly suited to the core-skills of a JTAC. Stand-off attacks are executed by air, naval or indirect fire weapons systems, or by Information Operations. When substantial forces do not need to be introduced to achieve the desired effects, stand-off attacks are a significant force multiplier. Hypothetically, a JTAC could execute a stand-off attack individually. However, Force Protection does not lend this mission to be prudently executed solo.

Similar to stand-off attacks, DA Precision Destruction Operations demand a man in the loop; however, that man must personally destroy the target using explosives.³⁰ Minimizing collateral damage of entire facilities or surrounding facilities necessitates dependence on hand-placed explosives prior to using air delivered and ground guided ordnance. The role of airpower in this mission is insert/extract, escort, over watch, emergency kinetic fire support and emergency extract. This mission does not require a JTAC on the ground during mission execution. Due to detailed planning, the airpower useful to this mission can be supported and accomplished during planning. DA Anti-Surface Operations, similar hard hit operations “conducted against adversary maritime surface targets,”³¹ follow this logic as well.

DA Recovery Operations are conducted to “search for, locate, identify, rescue, and return personnel, sensitive equipment, or items critical to national security.”³² Airpower can contribute capably and heavily to this mission. From reconnaissance to insert to overwatch, air provides significant support during execution of all phases of recovery operations. Similar to precision

destruction and anti-surface operations, and due to the clandestine nature of these operations, airpower support before and during these operations can be supported with liaison during planning and airborne control

Special Reconnaissance (SR) is clandestine or covert reconnaissance or surveillance conducted by a person or personnel on the ground. SR requires airpower support and liaison during planning, insert and in situations when the reconnaissance team is compromised during execution. "Special Reconnaissance and surveillance actions conducted in hostile, denied or politically sensitive environments to collect or verify information of strategic or operational significance"³³ depend on special infiltration skills. SR activities include environmental, target and threat assessment, and post-strike reconnaissance. Armed reconnaissance differs from other types of special reconnaissance in execution because of the intent to attack targets of opportunity during the mission. Terminal guidance operations and reconnaissance team members with skills necessary to execute terminal guidance may be required during armed reconnaissance.

Foreign Internal Defense (FID) operations supported by Special Operations Forces are unique in that they support conventional training in a manner unobtrusive to the host nation or that they specifically train indigenous forces "in tasks requiring SOF unique capabilities."³⁴ FID operations involve the interagency as well as conventional and unconventional military forces. The goal of FID is to train and mentor the Host Nation (HN), focusing on operational skills necessary "to free and protect its society from subversion, lawlessness, and insurgency"³⁵. FID can expand to include supervision of actual operations executed by the host nation.

Airpower can also play a unique role in FID; the extent of how airpower participates in FID operations depends upon the state of the HN's Air Force. If well developed, the training and mentoring missions can be executed in conjunction with ground training. If the HN's Air Force

is not as well developed, when necessary, US SOF forces can provide air overtly to support the training or covertly to support execution of missions. Substantial air liaison capability is very appropriate in both of these scenarios. A FAC or even an AirO's supervision is the appropriate level of support during FID. The knowledge and experience necessary to talk tactics, techniques, and procedures to both HN ground and Air Force personnel require the all encompassing skill sets of an aviator who knows support of the mission sets from both the ground and the air perspectives. Most important to FID operations, the AirO or FAC can lay the proper foundation for an air liaison capability within HN forces.

Unconventional Warfare (UW) Operations "involve a broad spectrum of military and paramilitary operations, normally of long duration, predominantly conducted through, with, or by indigenous or surrogate forces that are organized, trained, equipped, supported, and directed in varying degrees by an external source."³⁶ UW includes military and paramilitary operations to "include, but are not limited to Guerilla Warfare, Subversion, Sabotage, Intelligence Activities and Unconventional Assisted Recovery."³⁷ Due to the covert and/or clandestine nature of UW operations, building JTAC skills into a designated SO operator is the appropriate step necessary to support the emergent airpower liaison need. Seasoned, mature, and sound decision-making is required by the aircrew supporting the airpower needs of the operation. Therefore, due to the emergent nature of required air support and the inability to pick the aircrew that reactively support SOF, the appropriate airpower liaison for the SOF team is an imbedded and seasoned JTAC.

Counterterrorism (CT) operations are "offensive measures taken to prevent, deter, preempt, and respond to terrorism."³⁸ SOF CT operations are both kinetic and non-kinetic in nature. US Special Operations Command, having been given the Department of Defense lead in

synchronizing the Global War on Terrorism, recognizes the need for a resolute approach by all forces and agencies involved in protecting the nation. Liaison with the nation's intelligence agencies is imperative for successful CT, to include liaison for operational planning and execution with both the analyst and the operational sides of the agencies. Missions inside of CT range from overt, covert, or clandestine surveillance and reconnaissance to kinetic attack and hostage rescue. Non-kinetic activities involve actions "focused to defeat ideology or motivations that spawn terrorism."³⁹

Just as with UW operations, airpower is available to support all aspects of CT operations. The extent and type of air support depends on the mission. Within Intelligence Operations, Network and Infrastructure Attacks and Non-Kinetic Activities, clandestine support is appropriate. In Hostage or Sensitive Material Recovery, covert or overt support will be determined by the mission profile of the ground force. For clandestine operations, air liaison support can be handled by a JFO under the watchful eye of the unit AirO. In covert activities, the air liaison support required can be managed similarly. However, when the battlespace becomes more complex and detailed coordination is required, a JTAC is the better choice with the help of an AirO. In non-kinetic operations, specifically PSYOPS, FID and CA, detailed planning requires AirO participation to meet the ground element's airpower liaison needs. PSYOP, FID, and CA missions can occur under AirO supervision with the AirO, a JTAC, or a JFO executing in the field. Command and Control systems are mature enough to allow supervision of these low impact operations.

Counterproliferation (CP) of Weapons of Mass Destruction (WMD) refers to actions taken to locate, seize, destroy, render safe, capture, or recover WMD and their delivery systems.⁴⁰ All efforts work towards keeping these weapons and associated materials out of

enemy hands. The enemy is defined as those whom the United States and the remainder of the free-world fear gain access to the ultimate weapon. In order to appease fears associated with the undesired acquisition of WMD, SOF and other U.S. agencies focus on covert and clandestine counterforce, active and passive defense, and consequence management. When required, the full spectrum of airpower is available to SOF to support operations of this vital strategic mission. Air liaison is available from imbedded SOCOM Air Officers to support the vital strategic mission.

Civil Affairs Operations (CAO) are non-kinetic relations with indigenous populations, authorities, and governments facilitated through Civil Military Operations (CMO).⁴¹ CMO actions directed by Combatant Commanders enhance military and other elements of national power being exercised by the interagency and civilian organizations to achieve operational U.S. objectives. SOF can work with a variety of airpower elements to support the joint, multi-national, and interagency operations which meet life-sustaining needs of civilian populations. Through or with indigenous authorities and governments, all organizations mentioned previously work to pre-empt or react in times of extremis to the needs of indigenous populations.

Psychological Operations (PSYOP) convey select information to foreign audiences with intent to influence emotions, motives, objective reasoning, and behavior of foreign governments, organizations, groups, and individuals.⁴² As a non-kinetic tool to commanders, PSYOPS works to avoid kinetic confrontations by positively affecting foreign attitudes in favor of the commander. PSYOPS are targeted at both hostile and friendly people. Targeting hostiles, PSYOPS attempts to persuade attitudes favorable towards U.S. interests or create dissent amongst the targeted group. Targeting indigenous people, PSYOPS attempts to reduce indigenous support for hostile regimes. Overall, PSYOPS work to reduce or avoid friendly,

enemy, and civilian casualties by transmitting messages that are received, processed, and find a discriminating ear capable of influencing and reducing hostile intent towards U.S. interests and personnel.

PSYOPS planning and employment enables it to be a force multiplier. The Combatant Commands have responsibility to ensure synchronized application as part of Phase 0 Operations, Civil Military Operations, and Humanitarian Assistance Operations.⁴³ SOF has a special and distinctive capability to execute PSYOPS due to extensive language and cultural training. SOF is capable of managing strategic, operational, and tactical PSYOP messages. PSYOPS integrates into the IO plan and is synchronized to ensure common themes to meet strategic, operational and tactical objectives.⁴⁴

Information Operations (IO) are executed across the spectrum of warfare. It is essential to integrate IO in all phases of military operations. While defending friendly information and systems, IO targets enemy systems and information. Public Affairs (PA), intelligence, physical and information security, as well as CMO, are capabilities used in IO. Computer network operations, electronic warfare, operational security, and military deception in addition to PSYOPS are core capabilities to IO. IO can be very complex, demanding legal and policy review before coordinating at the national level for higher approval.⁴⁵

Airpower supports non-kinetic CAO, PSYOPS and IO with reconnaissance, transport, and communications. Airpower has a significant role in EW efforts integral to IO success. Appropriate liaison between SOF and airpower platforms in support can be managed by Air Officers attached to SOF headquarters' elements.

For most, if not all non-kinetic SOF operations, SOF headquarters' elements and imbedded Air Officers can manage airpower liaison with supporting aviation elements. For

kinetic operations, JTAC skills are necessary to be imbedded with SOF ground elements. If the SOF Commander had the ability to pick and choose when liaison would be required, a JFO could fill-in nicely in certain situations. However, without that luxury, an imbedded JTAC has the skill sets necessary to support the dynamic operations of SOF.

The JTAC skill set is well suited for SOF missions due to the isolated environments in which SOF normally operate. When the battlespace becomes more crowded with other SOF and conventional forces, it is very important for more substantial airpower expertise to be available to deconflict airspace and monitor converging forces. In crowded and chaotic combat environments, increased aviation situational awareness of a FAC or an AirO is a force multiplier. FACs with the same skills of a JTAC necessary to bring aviation fires to bear, has the innate ability to bring more aviation support into the confined environment, fully deconflicting air space while managing other converging forces and airpower in support of those forces. When required, a FAC needs to be ready to support.

In analysis of the Marine Corps Distributed Operations concept mission sets applicable to DO can be drawn from SOF mission sets. It is within execution of those operations that the incumbent strengths of the MAGTF will be highlighted and can be leveraged. The required airpower expertise, liaison and supervision, as well as the vital ability to be flexible in chaotic environments are inherent to USMC forces. In support of Combatant Commanders, USMC forces have and will continue to support small operations in regions often considered unreachable by other conventional means.

Distributed Operations – Tactic for use in the Long War

The 2005 Distributed Operations (DO) proposal currently under further development at the Marine Corps Combat Development Command, is ready to be embraced by the Marine Corps

as a tool for use by the Combatant Commanders in the Long War. With foreign threats across the globe utilizing the basic tenants of insurgency by dispersing forces and striking at perceived vulnerabilities of the United States military, the Department of Defense has taken steps to transform, leveraging existing conventional forces to fight the unconventional war. With continued effort to maintain warriors capable of fighting the conventional war, leveraging this generation's volunteer force requires enhanced training and further education. The maturity needed to fight in a distributed manner requires maturity normally gained through experience. Without the ability to immediately pump several years of experience into our young warriors, the young Marine can gain a good understanding and the maturation process can be accelerated through an improved education, developed and taught by our experienced warfighters.

In addition to improved education of our warriors, it is imperative for USMC leaders and subordinates to understand the limitations of Distributed Operations. Utilizing DO in Phase II or III high intensity combat operations is not wise. Marines operating dispersed with intent to mass as risk to force protection and the threat of combat rises, plays to the advantages the enemy is working to exploit. However, in more favorable conditions such as are present in Phase 0, I and IV Operations, DO is not only appropriate, but when critically analyzed, is the preferred tactic.

With U.S. Special Operations Forces currently stretched thin and working to increase numbers efficiently, the current global insurgency efforts by religious extremists points to DO as the appropriate tactic to be used by USMC Marine Air Ground Task Forces. Sterling performance in Small Wars is at the core of Marine heritage; it is imperative for the USMC to position our expeditionary force to contribute to the fight against extremists. With current and emerging threats utilizing Mao's teachings to kinetically and non-kinetically strike at perceived vulnerabilities of the United States, the USMC is ready to grasp the concept, invest in training,

equip, and support Marines as they utilize DO preemptively to escalation into Phase II and III kinetic combat operations.

Mature leaders and an exceptionally competent force are at the core of success in Distributed Operations. The “Strategic Corporal” is the appropriate base on which to continue to build our force. Training is paramount. While maintaining a foundation of brilliance in the basics and keeping small unit force protection issues as a concern, it is important to look at supplementary basic infantry training to allow our force to operate dispersed in challenging environments. Our brothers across the pond in the United Kingdom, the Royal Marine Commandos are a light infantry force from which lessons can be taken. The USMC has always prided itself in every Marine is a rifleman and that it is the Marine, not the weapon that makes the Corps successful. The Royal Marine’s current training initiatives remind us of that premise. They have refocused their training system to ensure everyone who has the desire to contribute to the Corps’ mission is groomed and given the opportunity to contribute to the best of their ability. This is a fundamental concept within both the USMC and Royal Marines that was forgotten as many focused on the immediate fight.

Technology is vital and continues to be an evolutionary strength to the U.S. Armed Forces; however, it is the Marine behind the weapon or the system that effectively leverages the capability technology provides to succeed in operations. For the good of the United States, the USMC must remain relevant in the conventional fight. The acquisition system and long term material buys to remain relevant to fight the unknown battles of the future must continue, but with slight tweaks and continued innovation within the operating forces, education can make our Warriors more capable on the evolving battle field that demands expertise from all phases of

Combat Operations. Simply put, the US Marine Corps is not a heavy Infantry Division; the USMC is the United States' choice expeditionary force.

The rank distribution pyramid on which the UMSC is built should be adjusted to have more Non-Commissioned Officers. NCOs are a force multiplier in both conventional and unconventional warfare. Brilliance in the basics is vital to success in all operational phases. In the dispersed environment of Distributed Operations, capable and competent NCOs are the backbone. Cultural understanding is not a quick learned skill, therefore to leverage Marines brilliant in the basics and empathetic to foreign populations, the Corps needs more trained and experienced NCOs.

Equipment continues to evolve. Maintaining vigilant risk management and ensuring suitable force protection of the small unit, weapons, communication gear, and personal protective equipment need to become more capable and lighter. Investing in the right equipment is essential. Higher headquarters continues to enable the correct outfit of the force. It is imperative the Marine Corps remain methodical in procurement. However, efficiency in procurement cannot be lost. Emerging technology capable of exponentially increasing our warfighter's capabilities can be lost quickly in bureaucratic processes. Support of the distributed force with command and control, logistics and fires, can be accomplished. Utilizing current techniques and equipment as well as folding emerging technologies and ideas into the support system, the Corps is positioned to be a leader in the Global War on Terrorism.

With appropriate training, equipment, and support, Marines are ready to participate in Phase 0, I and IV Operations utilizing DO tactics. Following our heritage, while knowing the enemy and his capabilities, transformation points to refocusing on being the capable light infantry force, leveraging available funds to purchase appropriate equipment to support DO

requirements. The USMC has always been the expeditionary force of choice for Small Wars; our role in the diverse and varied battleground of the Global War on Terrorism is no different. "No better friend, no worse enemy" is at the core of Distributed Operations.

Foreign Internal Defense (FID) Operations through Joint/Combined Exchange Training (JCET), Civil Affairs (CA), Foreign Humanitarian Assistance (FHA) and Stability and Security Operations (SASO) all are appropriate missions for Marines to utilize DO tactics. The difference in mission and support between a SO Force and a DO Force for FID and CA is simply magnitude of forces involved in the effort. When a smaller footprint is desired by the host nation, SOF should be used or a DO Force parsed from a MAGTF (MEU, MEB, or MEF) while the remainder of the MAGTF remains afloat. If the overt footprint of a MAGTF does not negatively affect the HN, then the choice force would be the MAGTF utilizing DO as appropriate to the operation.

FHA Operations are short range operations executed to end or alleviate human suffering. They are focused toward reducing the impact of natural or manmade disasters or other endemic conditions such as disease, hunger, or privation. When the need for aid is urgent, the ability to use forward deployed MAGTFs or project military forces and logistics great distances enables the DOD to respond rapidly. Security Operations are an implied task to FHA dependent on the Host Nations ability to provide security. The duration in which military forces are engaged in FHA is limited; when civil agencies are able to effectively manage the situation, the DOD redeploys to not overstay welcome.

DO is an appropriate tactic for a MAGTF involved in FHA. DO facilitates the ability to scale force distribution to best support operations while maintaining the minimum footprint. Airpower support and appropriate liaison to make best use of available aviation assets to support

the operation can be handled by FACs, AirOs, and the Air Combat Element (ACE) planners. Airpower will be able to provide reconnaissance, transport, and communications. A MAGTF's ability to integrate and synchronize ground, logistic, and aviation operations as well as its ability to work in a joint or coalition task force is a force multiplier in operations to rapidly reduce stress and strain on indigenous populations.

MAGTFs supporting stability, security, transition, and reconstruction (SSTR) operations are able to selectively utilize DO as a tactic. Stability and security operations apply military power to influence political and civil environments, facilitate diplomacy, and interrupt specified illegal activities. Stability operations seek to maintain or reestablish a safe and secure environment and provide essential governmental services, emergency infrastructure reconstruction, or humanitarian relief.⁴⁶ In order to reassure allies and friendly governments, encourage weak or faltering governments, setting and maintaining order includes deterrence of aggression and stabilization of the environment. Stability operations support U.S. Government SSTR plans and likely will be conducted in coordination with and in support of Host Nation Authorities, Other Government Agencies, Intergovernmental Organizations, and/or Nongovernmental Organizations.⁴⁷

FACs and AirOs are able to facilitate airpower planning for SSTR support. When the MAGTF executes in a distributed manner, the FACs can position themselves where it is believed they may be needed to support with immediate airpower requests. JFOs can fill the void of a trained FAC or JTAC by maintaining communications and maintaining situational awareness in the tactical mission. If the mission turns kinetic, the JFO can respond immediately and work with a FAC or the AirO to prosecute a target as required.

As Distributed Operations tactics are utilized in Phase 0; I and IV operations, the non-kinetic intent in operations leads to maintenance of current manning levels of FACs and AirOs. With FACs attached to companies and AirOs attached to battalions, airpower liaison is ready to work with the ACE of the MAGTF in support of the ground operation. With technology accelerating the capabilities of Unmanned Aerial Vehicles (UAVs), the FAC or AirO could have a JFO integrated into a DO platoon or squad, and work with the JFO to coordinate airpower support as required. In the DO environment, the JFO could handle any situation up to an including CAS execution in conjunction with the FAC supervising via UAV. If a UAV was unavailable during the time of need, the JFO would have the appropriate skills to manage CAS execution in a Troops-in-Contact situation.

Conclusion - Synthesis and Recommendations

In order to support the immense operational requirements of the Combatant Commands' Theater Security Cooperation⁴⁸ plans, the military must be prepared to decentralize in order to support these operations which are vital to the National Security Strategy. In order to spread load work and contribute to sustainable operational tempo for all military forces, conventional military commands are capable of executing a variety of operations, strategic in nature but tactical in execution. SOCOM is tasked to synchronize military operations in support of the Global War on Terrorism. Other than the immediate address of emergent threats to the United States, there is no more important role to the military than support of the National Security Strategy through engagement operations supporting the Combatant Command's Theater Security Cooperation Plans.

Building a JTAC that has a matured skill capability in Special Operations and aviation liaison expertise is time consuming. However, it is correct to embed SO JTACs in SO units,

because of the years it takes to make a SOF warrior. However, EWTGPAC's TACP instruction is structured for multiple large maneuver units in a battlespace. The extensive syllabus is not tailored for the needs of a SO JTAC; it goes well beyond the needs. A more precise training syllabus for a special operator can be found in other JTAC venues. Naval Strike and Air Warfare Center (NSAWC) and Special Operations Terminal Attack Controller Course (SOTACC) both focus on supporting the SOF force with JTACs. It is correct to continue to send SO JTACs to EWTGPAC training, but it is also proper to leverage the training pipelines of other courses. Concise academic augmentation of the NSAWC and SOTACC JTAC provides the education required to complete the JTAC in the eyes of USMC standardization.

The JFO provides a force multiplier to the Marine TACP. With emergent technology, the USMC AirO and JTAC have the ability to monitor a much larger battlespace than in previous times. A JFO imbedded in DO units provides the on the ground, real-time link to airpower. The JFO works with the AirO or FAC to bring the airpower to bear as needed. The needs of many are able to be supported by linking (communication and UAV video feed) distributed portions of the TACP (JFO) to the airpower expert (AirO or FAC). In today's operating environment, technology allows for this distributed concept. It also enables the few qualified to support a much broader distribution of operating forces.

If the U.S. Military had unlimited assets and training time, a JTAC in every Marine Squad and Joint Special Operations Team would be very "nice to have." However, the extensive skill set(s) would be misplaced in SOF units that normally work in austere environments or in DO forces that operate in relatively non-kinetic environments. More appropriate training is focused on four basic duty areas, with a perfunctory education in four other duty areas. The four focus areas are CAS Preparation, Execution, Terminal Guidance

Operations, and CASEVAC. Focusing on these four skills does not to disparage other duty areas, it is very important to have an educated familiarity in CAS Planning, Terminal Attack Control, Rotary Wing Operations, and Aviation Fires.

Combatant Commander Theater Security Cooperation Plans are best supported by flexible forces able to operate in environments of uncertainty. Operations in these areas need to be distributed to meet the needs of indigenous populations. The JFO, with a skill set defined by the Joint community, is the appropriate choice for the services to pursue to support DO forces. SO forces have a more pressing need for JTAC skills, and should be filled as such.

Continuing education in the Joint, Combined, Coalition communities and the Combatant Commands is in the best interest of force providers. The Joint communities are better situated to support qualification and currency of JFOs in contrast to the more significant resources required to qualify and maintain currency of JTACs. Training and education is key to successful airpower support in Distributed and Special Operations. Education of the DOD will avoid watering down the skill sets of the JTAC to have enough to fill perceived shortages. The strengths of SO and DO forces should be utilized. SO and DO education must be enhanced within by educating internal personnel to the skill set of a JFO. This approach will ensure successful mission execution with airpower support through the appropriate liaison at the precise time and every time it is needed. JFOs, JTACs, FACs and AirOs are capable of supporting Commanders in a wide range of operations in the Long War against violent extremism.

Citations and Endnotes

- ¹ Division of Operations and Training "Engagement at Ocotol and Telpaneca." Marine Corps Gazette, Vol. 14, Iss. 1 (Quantico: Mar 1929): pg. 16. <http://proquest.umi.com>.
- ² Ibid, 16.
- ³ McCutcheon, Keith S. "Close Support Aviation." Folder 1, Box 3 - Keith B. McCutcheon Papers. Archives and Special Collections Branch, Library of the Marine Corps, Quantico, VA: pg. 3.
- ⁴ Marine Corps Schools. "An Evaluation of Air Operations Affecting the U.S. Marine Corps in World War II." Quantico, VA: Marine Corps Schools, 31 December 1945, III - 40-41.
- ⁵ Ibid, III - 82.
- ⁶ Ibid, III - 83.
- ⁷ McCutcheon, 5.
- ⁸ *Joint Publication 3-09, Joint Tactics, Techniques, and Procedures for Close Air Support (CAS) – Change 1, 2* September 2005, I - 5.
- ⁹ *Joint Publication 3-09, Joint Tactics, Techniques, and Procedures for Close Air Support (CAS)*, 1 October 2007, I - 4.
- ¹⁰ Ibid, I - 4.
- ¹¹ Ibid, I - 4.
- ¹² Ibid, I - 4.
- ¹³ USMC Artillery OAG, December 2007.
- ¹⁴ MAWTS-1, *The Six Functions of Marine Corps Aviation*, 31 May 2002.
- ¹⁵ Ibid, 1 - 2.
- ¹⁶ Ibid, 2 - 3.
- ¹⁷ Ibid, 3 - 1.
- ¹⁸ Ibid, 3 - 2.
- ¹⁹ Ibid, 4 - 1.
- ²⁰ Ibid, 5 - 1.
- ²¹ Ibid, 5 - 2.
- ²² Ibid, 6 - 3.
- ²³ Corum, James S. and Wray R. Johnson. *Airpower in Small Wars: Fighting Insurgents and Terrorists* (Lawrence, KS: University Press of Kansas, 2003), 427.
- ²⁴ Corum, 430-431.
- ²⁵ Corum, 431-433.
- ²⁶ *Joint Publication 3-0, Joint Operations*, 17 September 2006, IV - 27.
- ²⁷ Department of Defense, Assistant Secretary of Defense for Special Operations and Low Intensity Conflict, *USSOCOM Posture Statement, 2003-04*.
- ²⁸ *Joint Publication 3-05, Doctrine for Special Operations*, 17 December 2003, II - 3.
- ²⁹ Ibid, II - 4.
- ³⁰ Ibid, II - 6.
- ³¹ Ibid, II - 5.
- ³² Ibid, II - 5.
- ³³ Ibid, II - 6-7.
- ³⁴ Ibid, II - 7.
- ³⁵ Ibid, II - 7.
- ³⁶ Ibid, II - 8: "UW is unique in that it is a SO that can either be conducted as part of a geographic combatant commander's overall theater campaign, or as an independent, subordinate campaign. When conducted independently, the primary focus of UW is on political-military objectives and psychological objectives. UW includes military and paramilitary aspects of resistance movements. UW military activity represents the culmination of a successful effort to organize and mobilize the civil populace against a hostile government or occupying power. From the US perspective, the intent is to develop and sustain these supported resistance organizations and to synchronize their activities to further US national security objectives. SOF units do not create resistance movements. They advise, train, and assist indigenous resistance movements already in existence to conduct UW and, when required, accompany them into combat. When UW operations support conventional military operations, the focus shifts to primarily military objectives; however the political and psychological implications remain.

Operational and strategic staffs and commanders must guard against limiting UW to a specific set of circumstances or activities defined by either recent events or personal experience. The most prevalent mistake is the belief that UW is limited to guerrilla warfare or insurgency.”

³⁷ Ibid, II-8: *Guerrilla Warfare* - military and paramilitary operations conducted by irregular, predominantly indigenous forces in adversary-held or hostile territory. The military aspect of an insurgency or other armed resistance movement. Guerilla warfare techniques can undermine the legitimacy of the existing government or an occupying power as well as destroy, degrade, or divert military capabilities. *Subversion* - operations designed to undermine the military, economic, psychological, or political strength or morale of a regime or nation. The clandestine nature of subversion dictates that the underground elements perform the bulk of the activity. *Sabotage* - operations that involve 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. Sabotage selectively disrupts, destroys, or neutralizes hostile capabilities with a minimum expenditure of manpower and materiel. *Intelligence Activities* - activities that assess areas of interest ranging from political and military personalities to the military capabilities of friendly and adversary forces. SOF perform intelligence activities ranging from developing information critical to planning and conducting operations, to assessing the capabilities and intentions of indigenous and coalition forces.

Unconventional Assisted Recovery (UAR) - operations that consist of UW forces establishing and operating unconventional assisted recovery mechanisms and unconventional assisted recovery teams. UAR operations are designed to seek out, contact, authenticate, and support military and other selected personnel as they move from an adversary-held, hostile, or sensitive area to areas under friendly control.

³⁸ Ibid, II - 9.

³⁹ Ibid, II - 9.

⁴⁰ Ibid, II - 10.

⁴¹ *Joint Publication 1-02, Department of Defense Dictionary of Military and Associated Terms*, 12 April 2001, as amended through 13 June 2007, 88. The activities of a commander that establish, maintain, influence, or exploit relations between military forces, governmental and nongovernmental civilian organizations and authorities, and the civilian populace in a friendly, neutral, or hostile operational area in order to facilitate military operations, to consolidate and achieve operational US objectives. Civil-military operations may include performance by military forces of activities and functions normally the responsibility of the local, regional, or national government. These activities may occur prior to, during, or subsequent to other military actions. They may also occur, if directed, in the absence of other military operations. Civil military operations may be performed by designated civil affairs, by other military forces, or by a combination of civil affairs and other forces. Also called CMO.

⁴² *Joint Publication 3-05, Doctrine for Special Operations*, 17 December 2003, II - 11-12.

⁴³ Ibid, II - 11-12. Planned operations that 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 behaviors favorable to the JFC's objectives. Planning and employment considerations include:

PSYOP Force Multiplier. PSYOP are among the most effective non-lethal weapons available to a commander. It can reduce casualties on both sides by reducing the morale and combat effectiveness of the adversary, creating dissent and disaffection within their ranks, encouraging surrenders or defections, promoting disobedience, or inducing a lack of support for a hostile regime within a civilian populace.

PSYOP Combatant Commander Responsibilities. Each geographic combatant commander is responsible for conducting PSYOP programs in peacetime. Such efforts are designed to create a favorable image of the friendly government, United States, and Armed Forces of the United States; encourage support for democratic institutions, human rights, regional stability, and counterdrug activities; and assist a HN in explaining and publicizing humanitarian and civic action projects to local citizens. When used as part of an integrated theater strategy or strategic information operation, PSYOP can reduce the probability of conflict, reduce the damage if conflict does occur, and speed the transition to normality in the post-conflict phase.

PSYOP Applications. Taking advantage of their language and culture skills, in-depth knowledge of the region, and understanding of interagency operations, SOF provide the geographic combatant commander with a broad range of PSYOP capabilities to be employed independently or in support of a larger theater campaign. These capabilities include the following:

PSYOP Developing, Producing, Distributing, and Disseminating. PSYOP units design, develop, and produce programs. They distribute and disseminate products that support tactical, operational, and strategic goals.

Coordinating and Directing PSYOP Programs. PSYOP support national policy goals with programs developed for and approved by higher authority. PSYOP personnel coordinate with the chain of command to ensure the credibility and effectiveness of the program.

Producing PSYOP Studies and Estimates. PSYOP personnel produce and maintain studies and estimates for the commander. They advise supported commanders on the expected psychological impacts of their courses of action (COAs). They identify the adversary PSYOP effort and the susceptibilities of friendly forces.

PSYOP Support Enemy Prisoner of War (EPW), Civilian Internee (CI), and Dislocated Civilian (DC)

Operations. PSYOP support can dispel rumors, create dialogue and pacify or indoctrinate EPWs, CIs, or DCs to minimize violence, facilitate efficient camp operations, and ensure safe and humane conditions persist.

PSYOP Providing Support to HN Assistance Operations. During CMO, PSYOP personnel may work with CA or conventional units to promote civic action projects either by or in support of the host government.

Employ Tactical PSYOP. Tactical PSYOP forces, with augmentation, are capable of providing all functions of PSYOP, on a limited scale, to component commands within a designated area of operations (AO).

⁴⁴ Ibid, I - 11-12. **PSYOP Support to Information Operations.** PSYOP are a core capability of IO. PSYOP activities are integrated into IO plans and synchronized with IO objectives and themes. Mission-type orders and decentralized execution can give PSYOP forces considerable autonomy to conduct tactical operations within established IO guidance.

⁴⁵ Ibid, II - 12-13.

⁴⁶ JP 3-0, V - 1.

⁴⁷ Ibid, V - 1.

⁴⁸ JP 3-0, I - 3-11 and JP 1-02, 364,542. National security strategy (NSS), national defense strategy (NDS), National Strategy for Homeland Security (NSHS), and national military strategy (NMS), shaped by and oriented on national security policies, provide strategic direction for combatant commanders (CCDRs). These strategies integrate national and military objectives (ends), national policies and military plans (ways), and national resources and military forces and supplies (means). (JP 3-0, I - 3)

Security Cooperation Plan. A SCP is a strategic planning document intended to link a CCDR's military engagement activities with national strategic objectives. (JP 3-0, I - 6)

Theater strategy. Concepts and courses of action directed toward securing the objectives of national and multinational policies and strategies through the synchronized and integrated employment of military forces and other instruments of national power. (JP 1-2, 542, JP 3-0, I - 11-12)

National security strategy. (NSS) A document approved by the President of the United States for developing, applying, and coordinating the instruments of national power to achieve objectives that contribute to national security. (JP 3-0, I - 3)

National defense strategy. (NDS) A document approved by the Secretary of Defense for applying the Armed Forces of the United States in coordination with Department of Defense agencies and other instruments of national power to achieve national security strategy objectives. (JP-3-0, I - 3)

National military strategy. (NMS) A document approved by the Chairman of the Joint Chiefs of Staff for distributing and applying military power to attain national security strategy and national defense strategy objectives. (JP 3-0, I - 5-6)

APPENDIX A

TACP MISSION ESSENTIAL TASK LIST

Duty Area 01 - CAS Planning.

- 01.1 Participate in the Military Decision Making Process (MDMP) or Marine Corps Planning Process (MCP).
- 01.2 Advise ground commander on Close Air Support assets in support of ground scheme of maneuver.
 - 01.2.1 Advise ground commander on FWIRW CAS employment/capabilities/limitations.
 - 01.2.2 Advise ground commander on FW/RW FAC(A) employment/capabilities/limitations.
 - 01.2.3 Advise ground commander on UAS employment/capabilities/limitations
 - 01.2.4 Advise ground commander on aviation weapon employment/capabilities/limitations.
 - 01.2.5 Advise ground commander on effects of weather, terrain, and threat WRT aviation support.
- 01.3 Advise ground commander on types of Terminal Attack Control.
- 01.4 Advise ground commander on kinetic aviation fires effects.
- 01.5 Advise ground commander on non-kinetic aviation fires effects.
- 01.6 Advise ground commander on CAS specific rules of engagement (ROE).
- 01.7 Advise ground commander on integration of CAS with direct fires.
- 01.8 Advise ground commander on integration of CAS with indirect fires.
- 01.9 Interpret fire support coordination measures and their impact on CAS mission planning.
- 01.10 Integrate joint and component airspace control agencies and joint force connectivity to support CAS operations.
- 01.11 Interpret airspace coordination measures and their impact on CAS mission planning.
- 01.12 Apply the products of the intelligence cycle to CAS mission planning.
- 01.13 Apply the products of the targeting process to CAS mission planning.
- 01.14 Plan the integration of CAS with direct fire assets to support the ground scheme of maneuver.
- 01.15 Plan the integration of CAS with indirect fire assets to support the ground scheme of maneuver.
- 01.16 Plan the integration of airborne ISR assets to support the ground scheme of maneuver.
- 01.17 Plan precision weapons CAS missions, in support of the ground scheme of maneuver.
 - 01.17.1 Plan laser guided weapon system deliveries.
 - 01.17.2 Plan coordinate-dependant weapons deliveries.
 - 01.17.3 Plan sensor-guided weapons deliveries.
- 01.18 Plan non-precision weapons CAS missions, in support of the ground scheme of maneuver.
- 01.19 Plan engagement with appropriate weapon in order to achieve desired effects; proportional response, and minimize collateral damage.
- 01.20 Plan day CAS missions, in support of the ground scheme of maneuver.
 - 01.20.1 Plan day FW CAS missions.
 - 01.20.2 Plan day RW CAS missions.
 - 01.20.3 Plan day UAS missions.

-
- 01.21 Plan night CAS missions, in support of the ground scheme of maneuver.
 - 01.21.1 Plan night FW CAS missions.
 - 01.21.2 Plan night RW CAS missions.
 - 01.21.3 Plan night UAS missions.
 - 01.21.4 Plan Illumination ISO night CAS missions.
 - 01.21.4.1 Plan ground-delivered Illumination.
 - 01.21.4.2 Plan aviation-delivered Illumination.
 - 01.22 Incorporate adverse weather CAS considerations.
 - 01.23 Incorporate urban CAS considerations.
 - 01.24 Plan AC-130 fire missions in support of the ground scheme of maneuver.
 - 01.25 Plan integrated attack by multiple fire support assets to support CAS.
 - 01.25.1 Plan target marking for CAS assets.
 - 01.25.1.1 Plan visual target marking for CAS assets.
 - 01.25.1.2 Plan sensor target marking for CAS assets.
 - 01.25.2 Plan SEAD for CAS attack.
 - 01.26 Plan terminal attack control procedures ISO of CAS attack.
 - 01.27 Plan target location procedures ISO of CAS attack.
 - 01.28 Request CAS via JTAR.

Duty Area 02 - CAS Preparation.

- 02.1 Operate organic JTAC equipment.
 - 02.1.1 Operate organic JTAC communications equipment
 - 02.1.2 Operate organic JTAC target marking equipment
 - 02.1.3 Operate organic JTAC target location equipment
- 02.2 Apply the products of Operational planning ISO CAS execution.
 - 02.2.1 Apply the products of the intelligence cycle ISO CAS execution
 - 02.2.2 Apply the products of the fire support plan ISO CAS execution.
 - 02.2.3 Apply the products of communications planning ISO CAS execution.

Duty Area 03 - CAS Execution.

- 03.1 Target detection
 - 03.1.1 Target Acquisition
 - 03.1.1.1 Execute target acquisition via aided or unaided day vision.
 - 03.1.1.2 Execute target acquisition via aided or unaided night vision.
 - 03.1.1.3 Execute target acquisition via remote observer.
 - 03.1.1.4 Execute target acquisition via remote real-time sensor information.
 - 03.1.2 Target Identification
 - 03.1.2.1 Validate target identification IAW commander's intent for fires
 - 03.1.2.2 Determine method of engagement IOT achieve effects
 - 03.1.3 Target Location
 - 03.1.3.1 Determine target location via map plot
 - 03.1.3.2 Determine target location via coupled GPS/LRF system
 - 03.1.3.3 Determine target location via tactical targeting system. (i.e. DPSS)
 - a. Service/component or coalition JTACs without fielded tactical targeting systems are exempt until such fielding occurs. If

-
- service/component or coalition JTACs employ tactical targeting systems that produce precision coordinates, (PSS-SOF, etc.) proficiency with that equipment must be demonstrated IAW Service regulations.
- 03.1.3.4 Determine target location via correlation of remote observer/sensor information
- 03.1.3.5 Match target location accuracy / format to desired weapons system.
- 03.2 Coordinate CAS attacks.
- 03.2.1 Integrate CAS attacks with surface-based fires.
 - 03.2.2 Integrate CAS attacks with ground scheme of maneuver.
 - 03.2.3 Integrate CAS attacks with existing fire support coordination measures.
 - 03.2.4 Integrate CAS attacks with existing airspace coordination measures.
- 03.3 Execute CAS targeting in accordance with the assigned fire support tasks.
- 03.4 Coordinate CAS Target engagement
- 03.4.1 Receive aircraft check-in brief.
 - 03.4.2 Provide situation update to CAS aircraft.
 - 03.4.3 Provide CAS Brief.
 - 03.4.4 Provide weaponeering guidance to achieve desired effects.
- 03.5 Execute deconfliction of aviation assets.
- 03.5.1 Execute procedural control of aircraft to provide safe separation of aircraft.
 - 03.5.2 Execute procedural control of aircraft to provide safe separation from fires.
- 03.6 Execute target marking for CAS assets.
- 03.6.1 Execute visual target marking for CAS assets.
 - 03.6.2 Execute sensor target marking for CAS assets.
- 03.7 Integrate SEAD during the execution of CAS missions.
- 03.8 Execute appropriate terminal attack control procedures
- 03.8.1 Execute Type 1 terminal attack control procedures
 - 03.8.2 Execute Type 2 terminal attack control procedures
 - 03.8.3 Execute Type 3 terminal attack control procedures
- 03.9 Control precision weapons CAS missions, in support of the ground scheme of maneuver.
- 03.9.1 Control laser guided weapon system deliveries.
 - 03.9.2 Control coordinate-dependant weapons deliveries.
 - 03.9.3 Control sensor-guided weapons deliveries.
- 03.10 Control non-precision weapons CAS missions, in support of the ground scheme of maneuver.
- 03.11 Control day CAS missions, in support of the ground scheme of maneuver.
- 03.11.1 Control day FW CAS missions.
 - 03.11.2 Control day RW CAS missions.
 - 03.11.3 Control day VAS missions.
- 03.12 Control night CAS missions, in support of the ground scheme of maneuver.
- 03.12.1 Control night FW CAS missions.
 - 03.12.2 Control night RW CAS missions.
 - 03.12.3 Control night VAS missions.
 - 03.12.4 Integrate Illumination ISO night CAS missions.
 - 03.12.4.1 Integrate ground-delivered Illumination.
 - 03.12.4.2 Control aviation-delivered Illumination.

-
- 03.13 Control adverse weather CAS missions in support of the ground scheme of maneuver.
 - 03.14 Control urban CAS missions, in support of the ground scheme of maneuver.
 - 03.15 Control AC-130 fire missions in support of the ground scheme of maneuver.
 - 03.16 Integrate airborne ISR in support of the ground scheme of maneuver.
 - 03.17 Employ service digital CAS systems.
 - a. Services, USSOCOM/Coalition partners without fielded digital CAS systems are exempt until such fielding occurs.
 - 03.18 Attack Assessment
 - 03.18.1 Conduct BHA.
 - 03.18.2 Determine effectiveness of attack.
 - 03.18.3 Route MISREP in accordance with CAS JTTP.
 - 03.19 Request immediate CAS missions.

Duty Area 04 - Casualty Evacuation.

- 04.01 Plan Day/Night aviation casualty evacuation at appropriate unit level.
- 04.02 Integrate Day/Night aviation casualty evacuation into the ground scheme of maneuver.
- 04.03 Train appropriate unit level personnel to execute aviation casualty evacuation.

Duty Area 05 - Electronic Warfare.

- 05.1 Plan the integration of Electronic Warfare assets to support the ground scheme of maneuver.
- 05.2 Request EW missions.
- 05.3 Integrate EW during the execution of CAS missions.

Duty Area 06 - Assault Support.

- 06.1 Plan the integration of Assault Support assets to support the ground scheme of maneuver.
- 06.2 Request Assault Support missions via ASR.
- 06.3 Integrate Assault Support with the ground scheme of maneuver.
- 06.4. Control Helicopter Landing Zone operations in support of ground scheme of maneuver.

Duty Area 07 - Aerial Reconnaissance.

- 07.1 Plan the integration of Aerial Reconnaissance assets to support the ground scheme of maneuver.
- 07.2 Request Aerial Reconnaissance missions via JTAR/SR.
- 07.3 Integrate Aerial Reconnaissance with the ground scheme of maneuver.

Duty Area 08 - Anti Air Warfare.

- 08.1 Plan the integration of AAW assets to support the ground scheme of maneuver.
- 08.2 Integrate AAW assets with the ground scheme of maneuver.

Duty Area 09 - Aviation Fires.

- 09.1 Advise ground commander on proportional response, and minimizing collateral damage.
- 09.2 Approve CAS missions based on established integration procedures.

Duty Area 10 - Air Advisor.

- 10.1 Advise ground commander on effects of threat Electronic Warfare to air support missions

-
- 10.2 Advise ground commander on EW specific rules of engagement (ROE).
 - 10.3 Advise ground commander on Electronic Warfare assets in support of ground scheme of maneuver.
 - 10.4 Advise ground commander on Assault Support assets in support of ground scheme of maneuver.
 - 10.5 Advise ground commander on Aerial Reconnaissance assets in support of ground scheme of maneuver.
 - 10.6 Advise ground commander on effects of threat Air Order of Battle to CAS missions.
 - 10.7 Advise ground commander on effects of threat UAS operations to CAS missions.
 - 10.8 Advise ground commander on AAW specific rules of engagement (ROE).

Duty Area 11 - Training.

- 11.1 Plan the training of unit TACP IAW Service directives.
- 11.2 Execute the training of unit TACP IAW Service directives.
- 11.3 Maintain TACP certification and qualification records IAW Service directives.
- 11.4 Train unit personnel in the capabilities/limitations of 6 functions of Marine Aviation.
- 11.5 Train unit personnel in the capabilities of Joint Aviation.

BIBLIOGRAPHY

Callwell, C.E., *Small Wars: Their Principles and Practice*. (Lincoln: University of Nebraska Press, 1996; reprint, originally published 1896).

Clausewitz, Carl von, *On War*, Michael Howard and Peter Paret, eds. and trans. (Princeton, NJ: Princeton University Press, 1989).

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

Division of Operations and Training "Engagement at Ocotol and Telpaneca." *Marine Corps Gazette*, Vol. 14, Iss. 1 (Quantico: Mar 1929).

Galula, David. *Counterinsurgency Warfare*. Westport, CT: Praeger Security International, 1964.

Headquarters U.S. Marine Corps. *Marine Corps Order 3500.37 - Tactical Air Control Party (TACP) Training and Readiness (T&R) Manual*. Washington, DC: Headquarters U.S. Marine Corps, 1 October 2007.

Headquarters U.S. Marine Corps. *Marine Corps Doctrinal Publication 1-2, Campaigning*. MCDP 1-2, Washington, DC: Headquarters U.S. Marine Corps, August 1, 1997.

Headquarters U.S. Marine Corps. *Marine Corps Doctrinal Publication I, Warfighting*. MCDP 1, Washington, DC: Headquarters U.S. Marine Corps, August 1, 1997.

Headquarters U.S. Marine Corps. *Small Wars Manual*. (1940; reprint, Washington, D.C.: Department of the Navy, 1987).

MAWTS-1, *The Six Functions of Marine Corps Aviation*, 31 May 2002.

McCutcheon, Keith S. "Close Support Aviation." Folder 1, Box 3 - Keith B. McCutcheon Papers. Archives and Special Collections Branch, Library of the Marine Corps, Quantico, VA.

Marine Corps Schools. *An Evaluation of Air Operations Affecting the U.S. Marine Corps in World War II*. Quantico, VA: Marine Corps Schools, 31 December 1945.

O'Neill, Bard E. *Insurgency and Terrorism: From Revolution to Apocalypse*. 2nd ed. Washington, DC: Potomac Books, Inc., 2005.

Tse-tung, Mao. *Guerilla Warfare*. Quantico, VA: Fleet Marine Force Reference Publication, 1989.

United States Marine Corps Artillery Organizational Advocacy Group (OAG), December 2007.

U.S. Air Force. *Air Force Doctrine Document 1, Air Force Basic Doctrine*. AFDD 1, Washington, DC: Department of the Air Force, 17 November 2003.

U.S. Air Force. *Air Force Doctrine Document 2-3.X, Irregular Warfare*. AFDD 2-3.X., Washington, DC: Department of the Air Force, 21 March 2007. <https://www.doctrine.af.mil/> (accessed 27 Feb 2008).

U.S. Army. *Counterinsurgency. Field Manual (FM) 3-24, Marine Corps Warfighting Publication (MCWP) 3-33.5*. Washington DC: Headquarters Department of the Army and Navy, 15 December 2006.

U.S. Department of Defense, Assistant Secretary of Defense for Special Operations and Low Intensity Conflict, *USSOCOM Posture Statement, 2003-04*.

U. S. Department of Defense. *Joint Publication 1-02, Dictionary of Military and Associated Terms*. JP 1-02, October 17, 2007.

U. S. Department of Defense. *Joint Publication 3-0, Joint Operations*. JP 3-0, 17 September 2006.

U. S. Department of Defense. *Joint Publication 3-05, Doctrine for Special Operations*. JP 3-05, 17 December 2003.

U. S. Department of Defense. *Joint Publication 3-09, Joint Tactics, Techniques, and Procedures for Close Air Support (CAS) - Change 1*. JP 3-09, 2 September 2005.

U. S. Department of Defense. *Joint Publication 3-09, Joint Tactics, Techniques, and Procedures for Close Air Support (CAS)*. JP 3-09, 1 October 2007.