Horizons

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MISSION

Develop and prepare fully capable Special Operations Forces for the present and into the future, ready to conduct military operations, build partner capacity and promote security engagement, through doctrine, education, and training; future concepts, wargaming, and capabilities integration; and institutionalizing irregular warfare across the joint force

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Joint Terminal Attack Controller (JTAC) Shortage:

Training Opportunities And Ongoing Initiatives To Increase And Maintain The JTAC Population

Lately there has been considerable attention being focused on the importance of Joint Terminal Attack Controller (JTAC) qualified personnel. In a memorandum from GEN David Petraeus, USCENTCOM Commander, to the Army and Air Force Chiefs of Staff, he highlighted the criticality of providing more JTACs for operations in the USCENTCOM AOR. JTACs provide the expertise to direct accurate Close Air Support (CAS) to successfully engage enemy targets while reducing collateral damage and civilian casualties. The dispersed nature of U.S and Coalition forces on the counter-insurgency battlefield calls for more JTACs to be emplaced with these units. The shortage of qualified JTACs can be attributed to factors such as lack of suitable training ranges, limited aircraft availability, high operational tempo, and a limited number of qualified instructors (JTAC-I) and examiners (JTAC-E). It is important for SOF units and personnel to understand Terminal Attack Control (TAC) operations and the training required to increase and/or maintain JTAC qualified personnel. In order to do so, familiarity with the following publication is essential:

USSOCOM Manual 350-5, Joint Terminal Attack Controller(JTAC) Training, 5 September 2008. This manual establishes the minimum standards for training, qualifying, evaluating, and certifying USSOCOM personnel to control CAS missions as a JTAC. It is essentially the SOF JTAC "bible."

Definitions

The process to establish minimum standards for training, qualifying, evaluating, and certifying USSOCOM personnel to control close air support missions as a JTAC can be somewhat confusing for those not intimately involved in the field. To better understand these processes, the following definitions should be understood and can be found in USSOCOM Manual 350-5:

JTAC A Joint Terminal Attack Controller (JTAC) is a qualified (certified) Service member who from a forward position directs the action of combat aircraft engaged in close air support and other offensive air operations. A current and qualified joint terminal attack controller will

be recognized across the Department of Defense as capable and authorized to perform terminal attack control.

JTAC-I A Joint Terminal Attack Controller Instructor (JTAC-I) is a highly qualified JTAC who provides the requisite instruction and guidance for certification to JTAC trainees. This individual must be at least an E-5, have at least 2 years continuous JTAC experience as a qualified JTAC, must be appointed in writing by the unit commander, and must pass a recurring 18-month evaluation using the criteria outlined in Table 5-1 of USSOCOM Manual 350-5.

JTAC-E A Joint Terminal Attack Controller Examiner (JTAC-E) is a highly qualified JTAC who provides the requisite evaluations of JTACs required for initial certification and the recurring evaluations JTACs undergo to maintain qualification. This individual must have at least one year experience as a JTAC-I, must be on a letter from the unit commander, and must pass an initial evaluation using criteria outlined in Table 5-1 of USSOCOM Manual 350-5.

Terminal Attack Control A control consists of at least one aircraft (fixed/rotary wing) attacking a surface target. The control begins with a CAS brief, also known as the "9-line briefing," from a JTAC and ends with either an actual/simulated weapons release or abort on a final attack run. No more than two controls can be counted per CAS briefing per target.

Type 1 Terminal Attack Control JTACs use a Type 1 control when the risk assessment requires them to visually acquire the attacking aircraft and target under attack.

Type 2 Terminal Attack Control A Type 2 control is used when the JTAC desires control of individual attacks but assesses that either visual acquisition of the attacking aircraft or target at weapons release is not possible, or when attacking aircraft are not in a position to acquire the target prior to weapons release.

Type 3 Terminal Attack Control A Type 3 control is used when the JTAC requires the ability to provide clearance for multiple attacks within a single engagement subject to specific attack restrictions, and any or all of the following conditions exist: 1. JTAC is unable to visually

acquire the attacking aircraft at weapons release. 2. JTAC is unable to visually acquire the target. 3. The attacking aircraft is unable to acquire the mark/target prior to weapons release.

Proponent The proponent for USSOCOM Manual 350-5 is the USSOCOM J33-G (Ground Branch).

Lead Agent In accordance with USSOCOM Directive 10-1, Terms of Reference-Roles, Missions, and Functions of Component Commands, AFSOC Air Integration Branch (AFSOC/A3OG) serves as the lead agent for all Terminal Control Operations involving Special Operations personnel.

Executive Agent Commander, AFSOC is the USSOCOM Executive Agent and JTAC Program Manager for all Terminal Control Operations involving Special Operations personnel.

Accredited Courses

A JTAC is specially trained, qualified and authorized to provide terminal control of CAS aircraft conducting operations in support of ground forces. Standardized training for JTACs is essential to providing effective air control and deconfliction of all CAS missions. The complexity of coordinating CAS with ground fire support and maneuver units requires a detailed understanding of combat aviation capabilities and other fire support means. USSOCOM only recognizes the following accredited JTAC qualification courses:

- Expeditionary Warfare Training Group (EWTG) Atlantic/Pacific (LANT/PAC) Tactical Air Control Party Course.
- Naval Strike and Air Warfare Center (NSAWC) Joint Terminal Attack Controller Course.
- Special Operations Terminal Attack Controller Course (SOTACC).
- U.S. Air Force Joint Air Ground Operations Group (JAGOG) Joint Terminal Attack Controller Qualification Course.*
- U.S. Air Force Europe Joint Fires Center of Excellence (JFCOE) Joint Terminal Attack Controller Qualification Course.*
- Multinational JTAC courses including Australian Defense Force (ADF) Forward Air Controller Developmental Unit (FACDU), Canadian Armed Forces Forward Air Controller Course, Norwegian Air Ground Operations School (AGOS), and UK

Joint Forward Air Control Training and Standards Unit.

*Note: Graduates of JFCOE and JAGOG are not fully qualified JTACs until they complete their respective Component phased programs at their home units.

Maintaining Currency

Once an individual graduates as a JTAC from one of the previously mentioned schools, he must maintain currency and accomplish all recurring evaluation requirements to retain authority to execute terminal attack operations. USSOCOM IMT 43, Certificate of JTAC Evaluation, or the equivalent service form is used to document JTAC currency training. This form, along with USSOCOM IMT 46 Terminal Attack Control Log, is placed in the JTAC Training Jacket and maintained by the unit JTAC program manager. Of note, AC-130 aircraft do NOT count as fixed wing controls. MQ-1 and MQ-9 UAVs may be counted for currency (maximum of 2 controls), but will not replace any of the required fixed wing controls. USSOCOM Manual 350-5, page 10 outlines the following JTAC currency requirements:

- All twelve annual currency CAS controls require the use of a 9-Line which can be found in JP 3-09.3, Close Air Support, 8 Jul 09, pg. V-40.
- A qualified JTAC must conduct six Type 1 or Type 2 controls within a 6-month period. Type 3 controls can be used for proficiency, but do not count toward this requirement.
- A minimum of three of six controls must be fixed-wing.
- A minimum of one control every six months must expend live or inert ordnance.
- One control every six months must be a night control.
- Recurring evaluation requirements must occur prior to the end of the 17th month after the previous evaluation.
- If a JTAC does not accomplish six controls in a sixmonth period, he is considered non-qualified.

JTACs who do not satisfy the above requirements are considered non-qualified until re-qualified in accordance with paragraph 3-14 of USSOCOM Manual 350-5.

Note: Of the six required controls per six-month period, 75% must be fighter-designated aircraft. The other 25% may be bomber aircraft, forward firing helicopters, or armed UAVs.

Training Opportunities.

The lack of aircraft and training venues seem to be major factors in the shortage of qualified and current JTACs. In

addition to unit-level training events, the following venues provide the opportunity for JTACs to execute the necessary terminal attack controls to maintain currency. While most of these training opportunities exist as part of a scheduled event, others are solely JTAC-focused. Points of contact follow each training venue/event should units desire to gather information concerning possible participation in these events.

Air Wing Fallon (AWF) The Naval Strike and Air Warfare Center (NSAWC) located in Fallon, NV trains each carrier air wing on the latest TTPs related to airborne command and control, offensive counterair (OCA), air interdiction, suppression of enemy air defense (SEAD), electronic warfare (EW), close air support (CAS) and combat search and rescue (CSAR). Mr. Al Glover, SOCOM J7/9, albert.glover.ctr@socom.mil.

Angel Thunder (AT) HQ ACC's premier CSAR training event. The largest personnel recovery (PR) exercise in the world with joint/coalition/interagency participation at distributed locations in Arizona and New Mexico. JCAS opportunities exist throughout the exercise. Mr. John Jewell, SOCOM J7/9, john.jewell.ctr@socom.mil.

Atlantic Strike Atlantic Strike is a semi-annual training event, located at the Avon Park Air Ground Training Complex, FL. The event prepares joint air and ground forces for maximum battlefield effectiveness through realistic urban close air support and intelligence, surveillance and reconnaissance training. MAJ Brendan Powell, JFCOM JFIIT / J32 / Atlantic Strike Exercise Director, brendan.powell@eglin.af.mil.

Emerald Warrior (EW) EW provides a dedicated venue (Hurlburt Field, FL and off-sites) where AFSOC aircraft can focus on interoperability tasks with other SOF assets (ground and air) and conventional Air Force assets in a tactical and operational level training event. Mr. Jeff Mason, SOCOM J7/9, jeffrey.mason.ctr@socom.mil.

Enhanced Mojave Viper (EMV) Unit and individual training to prepare USMC, joint, and Allied Forces to conduct relevant live-fire combined arms training, urban operations, and joint/coalition level integration training that promotes operational forces' readiness. Mr. Doug Craddock, SOCOM J7/9, douglas.craddock.ctr@socom.mil.

HAVE ACE Program HAVE ACE East (Hurlburt Field, FL) and West (Cannon AFB, NM) coordinate with SOF

units to conduct realistic tactical level full-mission profile training, with an emphasis on JCAS. HA East CW3 Gary Ostrander, gary.ostrander@hurlburt.af.mil; HA West CW4 Todd Sowerby, todd.sowerby@cannon.af.mil.

Joint Task Force Exercise (JTFEX) JTFEX is a scenario-driven live exercise designed primarily to train the Strike Group Commander and Staff, and assigned ships conducting expeditionary and other naval missions in a Joint/Coalition environment. Mr. Don Gresham, SOCOM J7/9, donald.gresham.ctr@jfcom.mil.

JTAC Continuation Program The JFCOM JTAC/JFO Continuation Training Program was implemented in FY09 to enhance the warfighting capabilities of forces flowing into the USCENTCOM AOR. The program is designed for JTAC/JFO continuation training, not initial training, and pays for any combination of travel, per diem, billeting, and rental vehicles. Funds may be requested for any JCAS training event. For more information contact Mr. Celio Castiblanco, JFCOM J7, celio.castiblanco.ctr@jfcom.mil.

Red Flag- Alaska (RF-A) RF-A is planned and executed by the 353rd Combat Training Squadron (CTS), located at Eielson AFB and Elmendorf AFB, Alaska. RF-A is Pacific Air Forces' premier joint and coalition air combat employment exercise. Mr. Al Glover, SOCOM J7/9, albert.glover.ctr@socom.mil.

Red Flag- Nellis (RF-N). RF-N is a tactical level exercise located at Nellis AFB, NV, which provides aviators combat sorties in a realistic training environment. Mr. Al Glover, SOCOM J7/9, albert.glover.ctr@socom.mil.

Weapons and Tactics Instructor Course (WTI) WTI, located in Yuma, AZ, hones participant's knowledge about weapons and their delivery, platform tactics and integration among Marine aviation and other Marine, joint and foreign aviation platforms and command and control systems. Mr. Tony Styer, SOCOM J7/9, anthony.styer.ctr@socom.mil.

"JTACs are critical enablers for safe, effective employment of CAS. Our experience continues to demonstrate that JTACs are essential to reducing collateral damage and civilian casualties in the successful engagements of targets."

GEN David H. Petraeus USCENTCOM Commander

Ongoing Initiatives

Since JTAC production is being outpaced by mission

requirements, increasing the JTAC presence on the battlefield requires additional manning, funding, and increased access to JTAC assets. Accordingly, AFSOC has undertaken the following initiatives to meet the high demand for this critical skill set.

JTAC Training Initiatives

In an effort to increase the number of deployable JTACs, AFSOC hired sixteen contractors to be placed at Special Tactics (ST) units to conduct in-unit JTAC training. Once the contractors complete the transition with the active duty JTACs, these JTACs will be available for overseas deployment. In addition, the 720th Operations Support Squadron (OSS)/OL-B was established at Nellis AFB, NV to improve JTAC training at the U.S. Air Force Weapons School (USAFWS). This school trains approximately 250 JTACs per year. In July 2009, the Air Force Special Operations Training Center (AFSOTC) assumed management of the Special Operations Terminal Attack Controller Course (SOTACC), and will assume full control in 2010. FY2010 will see an addition of three classes (academics only) which will increase the number of students per year from 96 to 144. Finally, AFSOC provided funding for JTAC simulator (Indirect Fire-Forward Air Control Trainer-IFACT) upgrades to maximize JTAC sorties during training events.

JTAC Manpower Initiatives

AFSOC also approached the JTAC shortages by examining unit manning documents. 17th Air Support Operations Squadron (ASOS) converted six existing billets to TACP billets, and headquarters AFSOC converted 30 unfilled billets to TACP billets. In addition to billet conversions, AFSOC is also focusing on improving Special Tactics recruiting and training efforts. Twelve positions were approved for U.S. Air Force recruiting groups, and AFSOC is now utilizing experienced but non-deployable personnel to improve the recruiting and pipeline success. Air Education and Training Command (AETC) approved initiatives which included improved facilities, increased focus on recruiting and selection, and improved instructor cadre.

USSOCOM headquarters and the Components are undertaking aggressive measures to meet the increased demand for JTACs across the force. Minimizing collateral damage is at the forefront of all military leaders' priorities in Afghanistan and Iraq. Those leaders depend on the teamwork between aircrew and JTACs to ensure innocent civilians and their property aren't put at unnecessary risk.

As one JTAC stated, "we exist to inflict maximum damage on the enemy while reducing collateral damage to civilian personnel and structures, and more importantly to bring the good guys home alive."

Lieutenant Colonel Tim Creighton is the Integration and Interoperability (1&1) Branch Chief in the J7/9-Exercises and Interoperability Division. The I&1 Branch is responsible for facilitating the integration and interoperability between SOF, General Purpose Forces (GPF), Interagency and Partner Nation forces. The Branch also authors USSOCOM Pub 3-33, Conventional Forces/Special Operations Forces Integration and Interoperability Handbook.

Foreign Professional Military Education:

A Human Capital Investment To Develop 3-D Operators

Irregular warfare (IW) requires that the traditional, "kinetic" warrior develop the knowledge and expertise to successfully navigate complex political, multicultural and multinational environments. In his posture statement to the House Armed Services Committee USSOCOM Commander Admiral Eric Olson said, "The complexity of today's and tomorrow's strategic environments requires that our Special Operations Forces (SOF) operators maintain not only the highest levels of war fighting expertise but also cultural knowledge and diplomacy skills. We are developing '3-D Operators' – members of a multi-dimensional force prepared to lay the groundwork in the myriad diplomatic, development, and defense activities that contribute to our Government's pursuit of our vital national interests."

The Commander also stated that, "We have a long way to go in recognizing and incentivizing such expertise as an operational necessity before we can truly develop and sustain real experts in specific key regions around the world."

The Department of Defense (DOD) Defense Language Transformation Roadmap and Quadrennial Defense Review (QDR) Execution Roadmap for IW highlight a need for regional expertise and are supported by the DOD Instruction for Management of DOD Language and Regional Proficiency Capabilities (DODI 5160.70) and the Directive for IW (DODD 3000.07).

The Directive for IW specifies that, "In coordination with the Under Secretary of Defense for Intelligence and the Secretaries of the Military Departments, create opportunities for DOD personnel to develop foreign language proficiency and cultural knowledge commensurate with the Intelligence Community's assessment of current and emerging threats to national security..."

A Path to Regional Expertise

Foreign Professional Military Education (FPME) provides today's officers the unique ability to "triple dip" during a normal milestone of their professional development. During either the intermediate service school or senior service school stage, FPME participants experience the unique advantage of concurrently obtaining language immersion, in-country cultural experience, and an advanced academic degree.

Reciprocal PME exchanges are authorized by Section 544 (Exchange Training) of the Foreign Assistance Act. This section authorizes the President to provide for the attendance of foreign military personnel at PME institutions in the U.S. (other than Service Academies) without charge, if such attendance is part of an international agreement.

These international agreements provide for the exchange of students on a one-for-one reciprocal basis each fiscal year between the U.S. PME institutions and comparable institutions of foreign countries and international organizations. USSOCOM J7/9-KE Education Branch manages the command FPME program.

FPME: World-Wide Opportunities

As depicted in Figure 1, U.S. military officers attend FPME schools in over 25 locations around the world. Twenty of those schools, such as the Pakistani National Defense College, require foreign language proficiency and training prior to attendance. This includes two U.S. schools located at Ft. Benning, GA and Ft. McNair, Washington D.C. The U.S. schools, focused on the western hemisphere, are conducted in Spanish and require Spanish proficiency.

Other schools, such as the Indian National Defense College, are conducted in English and provide students with rich cultural experiences in key countries.

"Linguistic, and even cultural training are, however, just aspects of the ultimate goal - warriors better able to react and think in the 'three-block war." The ultimate objective is multi-skilled leaders—

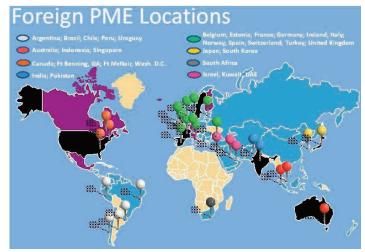


Figure 1—FPME Locations

soldiers who are not just warfighters, but are culturally, linguistically, and mentally adept team builders, diplomats, strategic thinkers, who are adaptable and culturally savvy."

March 25, 2006 Conference on PME—Sponsored by Congressmen Steve Israel & Ike Skelton

The Challenge of Language Proficiency

DOD language proficiency is graded on a scale of 0 to 5 for the language skills of reading, listening, and speaking. Realistically, a "3/3/3" score is the highest proficiency level that most non-native speak ers can obtain. A person at that level is able to comprehend and communicate effectively in that language.

Defense language courses, some as long as 63 weeks, require students to achieve a 2/2/1+ proficiency level for graduation. At that level, students can be expected to understand routine social conversation and limited duty-related communication. The leap from that level to a 3/3/3 proficiency requires a tremendous investment in both time and effort—two resources that are in very short supply for most mid— to senior-level officers.

FPME provides officers the opportunity to "multitask" by gaining regional expertise while obtaining language proficiency; both while accomplishing career appropriate PME. The level of language proficiency the FPME student can attain is very difficult to achieve outside of an immersive environment.

Focus on Regional Expertise and Cultural Awareness

As the lessons of Operations Iraqi Freedom and Enduring Freedom attest, communication and comprehension are enabled through awareness of foreign cultures, regional expertise, and skill in foreign languages. During a panel discussion presented during the 2006 Conference on

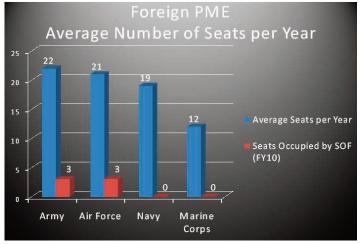


Figure 2—FPME by Service

Professional and Military Education, Deputy Undersecretary of Defense (Plans) Ms. Gail McGinn and then LTG David Petraeus noted that, "...there is a need to invest a new concept of what it means to be a thinking soldier. What is needed is not soldiers advised by scholars — but rather soldier-scholars, or soldier-linguists, or soldier-social scientists, at appropriate levels." FPME, and the associated immersive context, provides a way to regional expertise, with a deep understanding of the underlying cultural component and effective language proficiency.

Strategic Guidance: Defense Language Transformation Roadmap (DLTR)

Published In 2005, the DLTR laid out the strategic vision to achieve greater competency in organic language and regional skills based on four assumptions:

- Conflict against enemies speaking less-commonlytaught languages and thus the need for foreign language capability will not abate. Robust foreign language and foreign area expertise are critical to sustaining coalitions, pursuing regional stability, and conducting multi-national missions especially in postconflict and other than combat, security, humanitarian, nation-building, and stability operations.
- Changes in the international security environment and in the nature of threats to U.S. national security have increased the range of potential conflict zones and expanded the number of likely coalition partners with whom U.S. forces will work.
- Establishing a new "global footprint" for DoD, and transitioning to a more expeditionary force, will bring increased requirements for language and regional knowledge to work with new coalition partners in a wide variety of activities, often with little or no notice. This new approach to warfighting in the 21st century will require forces that have foreign language capabilities beyond those generally available in today's force.
- Adversaries will attempt to manipulate the media and leverage sympathetic elements of the population and "opposition" politicians to divide international coalitions.

Actions directed by the roadmap include establishing language ability as a criterion for General and Flag Officer advancement. It also introduces a requirement for junior officers to complete language training along with expanding study abroad programs and experiences in foreign countries.

Limited Opportunity

The opportunities for FPME are very limited among all services. SOF Officers are nominated by their parent services and minimum quotas for SOF personnel currently do not exist.

Figure 2 shows a breakout of FPME opportunities by service. Some schools are filled every year, others every other year, and a few are filled on a four year cycle. The average is approximately 75 seats per year. Currently, there are 6 SOF officers attending FPME schools.

The statistics for Navy and Marine Corps SOF may not necessarily indicate a lack of interest. The GAO Report Special Operations Forces: Several Human Capital Challenges Must Be Addressed To Meet Expanded Role noted that, "Data trends show [an] increase in deployments for operations and decrease in training." The effect of OPTEMPO, combined with underfilled occupational specialties, may influence SOF nominations for these 2-year commitments.

Other International Engagement

Although FPME opportunities may be limited, there are several other engagement options that promote regional expertise and foreign language/culture exposure. A less time-consuming alternative is attendance at a DOD Regional Center Program. These programs offer world-wide exposure opportunities at short term conferences and seminars.

The only seminars conducted in a foreign language are at the Center for Hemispheric Defense Studies, which are in Spanish. The other seminars are either conducted in English or are conducted in multiple languages, which always include English. Typical activities include inresident academic programs, in-region 1-3 week seminars, multi-day conferences, and research studies.

Two more foreign study opportunities are the Wayne A. Downing scholarship and the Olmsted Scholar program. Both are two-year overseas study programs.

Downing Scholars earn two years of advanced education, foreign language training and cultural immersion. Scholars also serve as Fellows of the Combating Terrorism Center (CTC) at West Point. The CTC helps the scholars design an individual program that includes exposure to foreign counterterrorism forces and formal language training. The Downing Scholarship program is only open to Army officers.

The Olmsted scholarship program is another highly competitive foreign study program. Olmsted scholars enroll as full-time students, usually study a foreign language, and interact with the residents of the countries in which they are living. They're expected to live on the economies of their host countries, travel widely and be connected to U.S. embassies or consulates only for necessary administrative purposes.

USSOCOM J7/9-KE continues to foster a strong relationship with both programs in an effort to increase opportunities for SOF officers. Both scholarship programs provide another way for exemplary officers to gain indepth exposure to foreign language and culture while obtaining an advanced degree. One drawback is that the country location or region of emphasis is selected by the program directors and may not match locations SOF leaders deem as priorities.

USSOCOM FPME Way Ahead

SOF operators must achieve "strategic appreciation" of the operational environment to effectively shape and affect it. As stated in USSOCOM Strategy 2010, "By applying perception, perspective, culture, history, and geography we try to achieve a higher level of understanding—not simply what and how events occur but rather why. This appreciation concentrates on relationships and synthesis of information rather than data and threats."

The 3-D SOF warrior, centered at the nexus of defense, diplomacy, and development, is the core of USSOF. FPME, and associated foreign study, is a way to develop necessary critical SOF skills.

USSOCOM is committed to forging coherent career policies among all services in an effort to increase SOF participation in these critical mission enhancing opportunities. The command will support 3-D operator

Goal 1. Create Foundational Language and Regional Area Expertise*

Current Situation

- Language and regional expertise have not been regarded as warfighting skills, and are therefore not incorporated into operational or contingency planning
- Language and cultural expertise are not valued as Defense core competencies yet they are as important as critical weapon systems

Desired Outcomes

- Total Force understands and values the tactical, operational and strategic asset inherent in regional expertise and language
- Regional area education is incorporated into PME and Development
 *From the DOD Defense Language Transformation Roadmap

development by:

- Increasing SOF cultural and regional knowledge through education opportunities to meet national and USSOCOM missions requirements.
- Increasing individual SOF foreign language capability in dialects necessary and relevant to current and future requirements through education opportunities.
- Assisting in matching gained expertise through education to immediate follow-on assignments or to life-long career models for SOF.

Conclusion

FPME is a Human Capital investment to enhance the development of the 3-D operator. That person is a Special Operations Force warrior who has regional expertise, understands local language and culture, and can address regional and local interests. The 3-D operator is able to deftly integrate activities among broader Interagency and international efforts.

For More Information on FPME Contact: Your unit or duty station education office USSOCOM J7/9-KE Education Branch DSN 299-9463/2943/0558

Mr. Nalepa works at the J7/9 Education Branch and has duties that include managing the Memorandums of Agreement between USSOCOM and the DOD Senior Service Schools. He holds an advanced degree in Education and has deployed numerous times to support lessons learned active collection at the JTF and JSOTF levels.

SOF And The Asymmetric Warfare Group:

Enhancing The Combat Effectiveness Of Our Operating Forces

"For USSOCOM, success in the future will be defined by actions that develop, support, and enable a Special Operating Force capable of executing global, distributed operations, within an environment characterized by irregular warfare and asymmetric challenges. U.S. Special Operations Forces (USSOF) must be seamlessly integrated and enabled with capabilities from across the Department of Defense and other agencies of the U.S. Government."

ADM Eric Olson

The Special Operation Forces (SOF) Warrior, and increasingly the General Purpose Force (GPF) Warrior, must execute missions across the 3-D Construct of Defense, Diplomacy, and Development. To address the need for skilled operators who can effectively employ the diplomatic and developmental capabilities of numerous departments and agencies of the U.S. Government, USSOCOM Interagency Task Force (IATF), Joint Forces Command Joint Irregular Warfare Center, and the Asymmetric Warfare Group (AWG) teamed with the Johns Hopkins University Applied Physics Laboratory to publish the Interagency Teaming to Counter Irregular Threats Handbook in December 2009. The AWG-funded handbook augments the 3-D Warrior's ability to engage, develop, and sustain partnerships within the interagency community during missions. The purpose of this handbook is to better equip the 3-D Warrior Leader with a basic understanding of the interagency environment and best practices when charged with building an interagency team to counter irregular threats at the tactical and operational level.

Although a relatively new military organization with its official formation in 2006, the Asymmetric Warfare Group, headquartered at Fort Meade, Maryland, has already built a strong relationship with SOF in the field. In addition to developing training tools and publications, AWG has teamed with SOF during theater security cooperation events such as Joint Combined Exchange Training (JCET), select training exercises and operations, and with units deployed in support of OPERATION IRAQI FREEDOM (OIF) and OPERATION ENDURING FREEDOM (OEF). The Asymmetric Warfare Group provides operational advisory assistance in support of

Army and Joint Force Commanders to enhance the combat effectiveness of the operating force and enable the defeat of asymmetric threats at the tactical and operational level. In addition to providing confidential observations to unit leadership from experienced warriors based on unit requests for support, AWG uses these observations to develop material and non-material solutions to assist both SOF and GPF.

Evolution of AWG

The Improvised Explosive Device Task Force (IED TF) was formed in 2003 to systematically address the IED threat predominantly in Iraq; however, the threat was ever changing and evolving its tactics, techniques, and procedures to inflict casualties on US and Coalition Forces and the IED was a single form of asymmetric threat. To stay ahead of this threat, the IED Task Force expanded and split into two organizations: the Joint Improvised Explosive Defeat Organization (JIEDDO) and the Asymmetric Warfare Group. JIEDDO remained a joint organization with primary focus on the ever-changing and complex IED threat. The Asymmetric Warfare Group was assigned a much different mission. As a field operating agency to the Army G3 Staff, the AWG evolved and broadened its charter. The AWG mission encompasses observation and collection of information on enemy asymmetric threats and friendly vulnerabilities as well as rapid solution development for capability gaps by exploiting enemy vulnerabilities and mitigating friendly vulnerabilities. The AWG is designed to improve the capabilities of the Army and joint units at the operational and tactical levels throughout the full spectrum of conflict. AWG enhances the capabilities of US units by making them faster and more adept at identifying and attacking enemy vulnerabilities, and by preparing them for future threats. As the threat evolved, so did the AWG.

Composition of the Organization.

The AWG is a team of professionals with approximately 370 active duty military personnel, government civilians, and contractors divided into a headquarters detachment, two operational squadrons, a training/recruitment/assessment squadron, and a concepts integration squadron. The AWG does not rely heavily on active duty Special Forces warriors due to the small population and high demand of these warriors. At the time of this publication and after a recent selection board, AWG manning includes twelve active duty

Special Forces warriors (three percent of the unit). Rather than focus heavily on active duty Special Forces to fill its ranks, AWG recruits from across the active duty Army for individuals with special skill sets and it relies heavily on contractors with extensive SOF experience (from all services) to build its team of operational advisors. Like SOF units, all AWG unit members are volunteers, must meet the strict entrance requirements, and complete a comprehensive assessment, selection, and training program. They must possess the following baseline skill sets:

- Be seasoned war fighters and functional experts
- Be innovative thinkers
- Be physically and mentally tough
- Be quiet professionals
- Be team players
- Want to effect change

To support the unique AWG mission and its personnel requirements, the Department of the Army classified the AWG as a Special Mission Unit (SMU), facilitating the unit's ability to assess, select and train unit members through a nominative process and modified personnel management procedures to ensure individuals with the proper skill sets enter this new organization.

More than Lesson Learned: Material and Non-Material Solutions.

Although AWG collects critical lessons learned based on direct observations from ongoing operations in Iraq, Afghanistan, and other locations around the world, it is organized and resourced to accomplish much more. Based on requests from the unit chain of command, AWG Operational Advisors observe and collect information on specified areas, report possible vulnerabilities and/or capabilities gaps, and then advise and assist troops



accordingly. Additionally, AWG has the ability to take these vulnerabilities or capability gaps and focus on solutions that may be both material and non-material.

The Concepts and Integration Squadron, also known as Dog Squadron, is an exceptionally unique organization within AWG and the Army. Their mission is to rapidly identify, develop, and integrate non-material and material solutions that mitigate or defeat specified asymmetric threats and transition these solutions to proponents, program managers, or Training and Doctrine Command (TRADOC). The squadron is comprised of a diverse group of specialists and military subject matter experts, to include a former Senior Executive Service (SES) counter threat finance expert, military explosives technicians, senior law enforcement professionals, and PhDs in various academic fields. The squadron conducts requirement analysis and research that lead to solution development. In a collaborative effort with interagency partners, industry, and academia, the squadron assesses and refines possible solutions to known capability gaps based on Doctrine, Organization, Training, Material, Leadership/Education, Personnel, Facilities, and Policy (DOTMLPFP). The Rapid Equipment Force Asymmetric Product Office (REF APO) provides direct support as the material developer for the AWG. The REF APO Team provides direct acquisition support and assists in the role as combat developer. This close relationship has resulted in the rapid and timely fielding of new capabilities to our deployed forces.

Some recent non-material solutions that have been combat proven involve best practices and techniques using the Find, Fix, Finish, Exploit, Analyze, and Disseminate Methodology (F3EAD) in support of OIF and OEF, Time Sensitive Targeting (TST), and Afghan Key Leader Engagement (KLE) to support the diplomatic skills of our 3-D operator. In addition, the Al Qaeda and Associated Networks (AQAN) Vulnerability Analysis Workbook was published to assist planners with a systematic method of identifying, understanding, and mitigating asymmetric threats associated with this network.

For material solutions, the Concepts and Integration Squadron has assisted in the fielding of rapid solutions to our Warfighters in theater. These include a Culvert Clearance system and a Fast Obscurant Grenade (FOG), fielded in less than six months. Other material solutions include the Air Digger and the Iron Scrape. The Air

Digger supports our EOD, engineers, and other forces in render safe procedures for dealing with IEDs. The Iron Scrape addressed the need for an organic means of removing heavy debris from routes during tactical operations. This simple yet incredibly effective tool allows rapid removal of debris that keeps routes open to traffic and prevents future patrols from repeatedly interrogating the same item found in their path. All of these products increase the effectiveness of our SOF and GPF in theater. Information on material and non-material solutions are readily available to our joint forces on the NIPR and SIPR websites.

Making the Culture More Innovative and Adaptive

Since 2006, AWG has been researching and developing an innovative approach to preparing Soldiers, leaders and units for the uncertain and constantly evolving mission environments of Iraq, Afghanistan, or other future battlefields. The concept, ideas, methods and techniques of this approach flow from a simple notion that promoting individual mastery of fundamental skills within a problem solving context develops a Soldier in ways largely unmatched by the Army's existing training system and approaches. Further analysis suggests that this kind of development will produce the adaptability, agility, versatility, flexibility and resilience that are called for to succeed during Full Spectrum Operations (FSO) to include the challenges associated with Irregular Warfare. The Outcomes Based Training & Education (OBTE) methodology closely resembles training techniques often used to prepare some of our SOF warriors and units. Leaders gain confidence in their units while individual Soldiers gain confidence in themselves through:

- Knowing what they must do and why
- Practicing problem solving
- Understanding the value and utility of initiative
- Awareness of what they must learn
- Understanding individual and team accountability

OBTE, linked with the Army Leader Development Strategy represents the new method of thinking and training needed to produce those highly competent and versatile leaders, individuals and teams. AWG has worked closely with Division and Military Initial Training units with significant results. This methodology nests well with the Army Chief of Staff's vision when he stated, "Most importantly, the Army is only as versatile as its Soldiers, leaders and civilians. Every Soldier is a warrior, and each must be trained and ready to effectively operate in any environment."

Leadership remains an essential element of combat power during this period of persistent conflict and hybrid warfare. AWG is working multiple initiatives to develop innovative and adaptive leaders through asymmetric leadership development programs. Based on guidance from the Army Staff, AWG is developing an Asymmetric Warfare Adaptive Leaders Program to better able the Army's leaders to deal with the challenges associated with these hybrid threats.

Teaming with SOF

The complex threats permeating the operational environment in Afghanistan and Iraq have forced GPF and SOF to work together at all levels. To facilitate this effort, AWG has worked closely with both entities to build and refine Regional Fusion Cells. These cells fuse the capabilities and functions of GPF, the interagency community, and SOF resulting in a more rapid identification, isolation, and destruction of enemy networks. A much more detailed report on tactical and operational observations and best practices is available on the AWG SIPR website.

The AWG has provided liaison officers or operations cells at the USSOCOM Headquarters, Geographic Combatant Commands (GCCs), Combat Training Centers, and Fort Bragg to facilitate operations, and/or Pre-Deployment Advisory Support. In addition to the Interagency Teaming Handbook project at USSOCOM Headquarters, the AWG element is coordinating future initiatives with the USSOCOM J7/9 on lessons learned and interoperability training issues.

In Khost Province, Afghanistan, AWG recently worked closely with elements of 4th Brigade Combat Team (Airborne), 25th Infantry Division. Using SOF tactics, techniques, and procedures (TTPs), AWG Operational

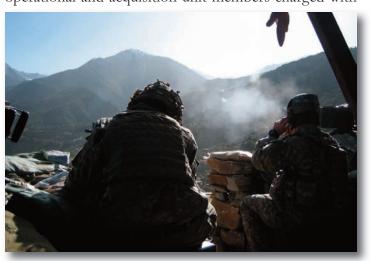


Specialists assisted in the training and development of a Focused Targeting Force (FTF) that has enjoyed many recent successes. Employing migrated SOF TTPs, these tailored forces combine well trained GPF combat arms forces, explosive ordnance disposal technicians, dog handlers, and others trained to work closely with document, media exploitation, and biometric laboratories in theater. During a mission in November of 2009, members of this FTF and Afghan Border Police captured an enemy commander in his bed without a shot fired. To date, this FTF has conducted over 70 operations and detained 25 individuals currently undergoing prosecution within the judicial system with only two direct fire engagements.

Although a majority of the AWG missions are within the Central Command Area of Responsibility (CENTCOM AOR), AWG has participated in Joint Combined Exchange Training and other training events with Special Operation Forces in Mali, Bangladesh, Thailand, and elsewhere. These missions provide valuable lessons learned, additional observations for SOF leadership, and select SOF TTPs that can migrate to the GPF which increase our overall capabilities to predict and defeat asymmetric threats.

Conclusion

AWG provides a unique combination of experienced Soldiers, DA civilians, and contracted subject matter experts, many with extensive SOF experience. They embed with deployed US Forces, SOF and GPF, to observe and collect information on enemy and friendly operations, tactics, techniques, and procedures. This enables AWG to identify exploitable enemy capability gaps and friendly capability gaps to mitigate. AWG assists in material and non-material solutions through its operational and acquisition unit members charged with



rapidly identifying, developing, and fielding new capabilities to counter emerging threats. Teaming with SOF, AWG provides additional observations on training and operations from experienced warriors and some additional expertise in some diverse areas to support the SOF 3-D Warrior. Close liaison with SOF, enables AWG to migrate select SOF tactics, techniques and procedures to GPF in order to increase the lethality and combat effectiveness of our nation's joint forces against future threats.

All Asymmetric Warfare products and requests for support instructions are available on the unit's websites located at:

SIPR:

http://army.daiis.mi.army.smil.mil/org/aawo/awg/defaul t.aspx

NIPR: https://portal.awg.army.mil

Sources:

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Jeff Hensley serves as the Asymmetric Warfare Group's Forward Operations and Liaison Officer in the USSOCOM LATF. He has served multiple assignments with the 75th Ranger Regiment and at Fort Bragg with United States Army Special Operation Command.

Emerald Warrior:

The Future of SOF Mission Rehearsal

The Military Author of Ancient Rome, Flavius Vegetius, famously wrote: "if you want peace, prepare for war." "Preparation" for US Special Operations Forces (SOF) translates to "Mission Rehearsal" and within the SOF community the EMERALD WARRIOR (EW) Mission Rehearsal Exercise (MRX) is quickly becoming the premier training venue for SOF warriors. The EW MRX seeks to integrate unique SOF capabilities with those of the General Purpose Forces (GPF), the Interagency and Non-Governmental Organizations. The goal of EW is to maximize our likelihood of success against an "irregular" threat by training the Joint Task Force to orchestrate the disparate elements of military and national power as one, integrated effort. EMERALD WARRIOR provides the mechanism for that integration training.

EMERALD WARRIOR is a USSOCOM sponsored, Air Force Special Operations Command (AFSOC) executed, Mission Rehearsal Exercise (MRX); its focus is at the operational/tactical level. This year EW will bring together a Joint training audience of nearly 1,400 warriors who will participate in a realistic scenario combining both live training and a dozen simulations to replicate the environment of actual combat. Buttressing the capabilities of EW is a Secretary of Defense program known as the Joint National Training Capability (JNTC).

The EW MRX began as a concept in 2007 to design an exercise that would enhance the capabilities of the newly formed AFSOC Warfighting Headquarters. That concept featured a series of joint operations conducted in a combination of Live, Virtual and Constructive (LVC) environments. The success of the first exercise in 2007 led to increased interest from USSOCOM and the US Joint Forces Command (USJFCOM), Joint Warfighting Center (JWFC). The next significant milestone occurred in 2009 when EW was granted JNTC accreditation and certification from JFCOM.

JNTC accreditation brings OSD investment to ensure adequate joint facilities, experienced exercise participants and required funding are available to enable joint context. As a result of SOF innovation and JNTC support the EMERALD WARRIOR MRX has grown into a model of

SOF/General Purpose Force/Interagency collaboration and mission execution. JNTC has invested over three million dollars in improvements in joint training facilities on the Eglin Test and Training Range in Florida and invested roughly 2.3 million dollars in exercise execution for EW 2009. The EMERALD WARRIOR 2010 budget from JNTC is currently set at 2.7 million dollars.

In concert with the overall direction of JNTC, EMERALD WARRIOR continues to evolve as a Joint / Combined / Interagency training exercise that ensures the readiness of SOF Warriors by using a combination of live, virtual and constructive environments. The live environment involves the most traditional training venue of real people using real equipment on territory that closely approximates the terrain expected on an actual mission. The virtual environment employs individuals using simulations to closely replicate the mission environment and available capabilities. And, the constructive environment uses simulated entities in a simulated setting to replicate mission requirements. This LVC approach requires close collaboration among all participants to seamlessly integrate the different environments into a whole picture that creates the challenges of actual operations. The stated goal of JNTC leadership is that a soldier's experience during actual combat operations should be no different than the experience of his/her last simulation.

In 2010 EW will feature four Special Operations Components, conventional Marine Corps and Air Force units, Department of State, Department of Justice, Drug Enforcement Administration and Non-Governmental Organization participation. All of these participants will function together in an irregular warfare scenario requiring



innovation and cultural understanding as much as firepower and agility. Future exercises will include Coalition SOF observers and international SOF unit participation.

The overall design of the exercise moves participants through a series of phases building up to live participation in realistic combat operations executed under conditions closely replicating actual combat operations.

EW kicks off with a five-day "Academic phase" that brings together SOF, General Purpose Forces (GPF) and Interagency participants to hone specific skills and share information regarding subjects such as Irregular Warfare, Command and Control, Urban Survival Evasion Resistance & Escape (SERE) Training, Forward Area Refueling Point operations, and Communications. This phase will also see the stand-up of the exercise control organization and establishment of communications and collaborative connectivity among the major exercise locations. The objective of the academic phase is to ensure all participants are working from a common understanding of the mission and a common standard for the specific skills required for MRX execution.

Following the Academic Phase the exercise will transition into a second, five-day, phase of integrated mission planning and rehearsals. Half of this phase will be conducted on a reverse-cycle of nighttime training. Much of this training will focus on tactical-level operations in preparation for the larger exercise to come.

After a short mid-exercise After Action Review, EW will transition into its most dynamic phase of operations. The MRX will conduct night operations across a series of five training ranges located in Apalachicola, FL, Eglin AFB, FL, Camp Shelby, MS and Anniston, AL



Supporting the collaborative planning, exercise control, simulation integration and exercise execution is a complex "knowledge network" made up of interconnected nodes. The USSOCOM SOF Training and Exercise Network (STEN) will provide the central hub supporting the exercise with connectivity to three additional networks: the USJFCOM Joint Training and Experimentation Network (JTEN), the Hurlburt Training and Exercise Network (H-TEN) and the USAF Distributed Mission Operations Network (DMON). Simulation capabilities from as far away as Camp Lejeune NC, Eglin AFB FL and Charleston AFB SC will interconnect with a total of twelve other simulation systems via the combined power of these joint training networks.

One such simulation is the USMC Virtual Battlespace-2 (VBS-2), a computer-based, first-person shooter simulation that is designed to enhance logic and decision making skills. VBS-2 allows for single or multiplayer activity aimed primarily at the ground force tactical-level. The goal of VBS2 training is to help our warriors enhance their cognitive skills and decision making ability under stress. Through the use of the VBS-2 our SOF warriors can operate in the same environment they will face when deployed. Thus, simulations like VBS2 allow us to train in an environment that would be difficult to duplicate in "live" training.

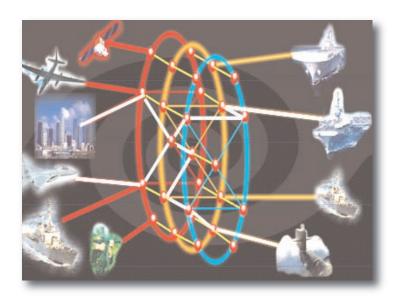
To meet the requirement for air-ground integration EW will employ the SOF Air Ground Interface Simulator (SAGIS). SAGIS provides Joint Terminal Attack Controller (JTAC) and Joint Fires Observer (JFO) training to both the air and ground audience. SAGIS, currently fielded at Hurlburt Field, provides an interactive multimedia instructional simulation system designed to replicate realistic air traffic control (ATC), terminal attack control (TAC) and Fire Support (FS) coordination.

Irregular Warfare-based scenarios will include: Counterinsurgency Operations (COIN), night infiltration, live call for fire, Intelligence Surveillance and Reconnaissance (ISR), AC-130 gunship support, and active convoy defense. New for 2010 will be training in Realistic Urban Terrain operations, Urban Casualty Avoidance, Information Operations, Advanced Urban SERE training and integrated Unmanned Aerial System support.

Of particular interest this year is the addition of Realistic Urban Terrain (RUT). RUT includes high-intensity, closequarter battle training that employs both live-fire and non-lethal fires in a very realistic civilian urban site. RUT also provides the setting for the transition from the "non-kinetic" battle (intelligence gathering and Civil Military Operations) to "kinetic" operations. RUT brings our warriors closer to the irregular warfare battle that they will experience on actual deployment.

As the EMERALD WARRIOR exercise moves into the future it will afford SOF operators the ability to rehearse their skills in the most realistic and interconnected environment possible. Hearkening back to the words of Flavius Vegetius, the EMERALD WARRIOR Mission Rehearsal Exercise will help our nation "preserve the peace by preparing (our SOF warrior diplomats) for war."

Contact USSOCOM J7/9 E for information regarding future EW participation.



Mr Don Kropp is a ManTech contractor currently supporting the Joint National Training Capability (JNTC) Program at US SOCOM. He is a retired Army COL, with a Masters Degree from the US Naval War College and extensive Special Operations experience.

Mr. Mike Brennan is a contractor and is the Joint National Training Capability (JNTC) Support Element to AFSOC. Mr Brennan's primary duty is to be the Joint Warfighting Center (JWFC) JNTC operations and planning representative at AFSOC and provides the bridge and reach back for JWFC support with specific emphasis on the JNTC accredited EMERALD WARRIOR exercise program. Mr. Brennan is a retired USAF Lt Col with 22 years of Special Operations aviation experience in the AC-130A/H/U.

USSOCOM's Role in Joint Doctrine

Recently, both the Commander, US Special Operations Command, and the Director, J7/9 have made the subject of doctrine a high priority within the organization. The Commander has a Title 10, US Code responsibility for developing and maintaining special operations (SO) doctrine which includes joint, Service, and multi-Service doctrine and multi-Service tactics, techniques, and procedures. This article focuses on how joint doctrine is developed by the Joint Staff, Service chiefs, and combatant commanders through a prescribed development system ¹ which provides the fundamental principles to guide employment of US forces in coordinated actions toward common objectives. Joint doctrine is contained in joint publications. It is authoritative but requires judgment in application which means it will be followed except in those unusual situations where a commander decides circumstances dictate otherwise.

Joint doctrine is written for those who:

- Provide strategic direction for joint forces, i.e., the Chairman, Joint Chiefs of Staff (CJCS) and combatant commanders (CCDRs).
- Employ joint forces, such as CCDRs, subordinate and joint task force (JTF) commanders (CDRs).
- Either support or are supported by joint forces.
- Prepare forces for employment by CCDRs and JTF CDRs.
- Train and educate those who will conduct joint operations.

For SO practitioners, joint doctrine provides guidance for concepts of employment for commanders responsible for

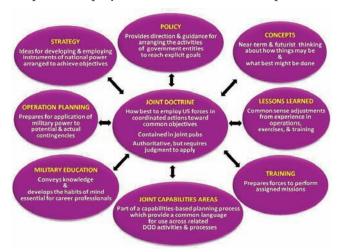


Figure 1 - Subject Areas Reflected in and Affected by Joint Doctrine

SO. This includes command and control relationships; employment of JTFs for SO, civil-military operations (CMO) and psychological operations (PSYOP); and planning procedures. Joint SO doctrine addresses the capabilities and limitations of SOF; it tells joint force staffs what they can and cannot expect from SOF; and describes what joint staffs must do to receive full value of SOF and their task forces as part of a joint force. Doctrine provides SOF units guidance regarding what they can reasonably expect for mission taskings, planning, employment, and support.

The foundations of joint doctrine include the following:

- It is based on current capabilities...it is the "D" in the DOTMLPF (doctrine, organization, training, material, leadership and education, personnel, and facilities) process and defines the capabilities to be fielded by the force.
- Incorporates time-tested and enduring principles and contemporary lessons.
- Standardizes terminology, training, command relationships, responsibilities and processes among US forces,
- Frees joint force commanders (JFCs) and their staff to focus efforts on the strategic, operational, and tactical problems confronting them.

Joint doctrine maintains responsive relationships with the eight key discipline areas of policy, concepts, lessons learned, training, joint capabilities areas, military education, operation planning, and strategy (Figure 1). Doctrine reflects these areas as they pertain to the subject matter addressed within each joint publication. Conversely, doctrine impacts the thinking expressed in each discipline area. Of note, there are instances where terminology may be developed within other disciplines to serve different purposes as is sometimes the case in policy documents or joint capability area (JCA) processes.

For example, a doctrinal definition developed to support the employment of forces may not provide the focus or context needed within a policy or JCA document addressing resources or requirements. Approved doctrine definitions are tightly drawn and without qualifying caveats while other disciplines' terminology serve narrower purposes and are not as constrained as doctrinal terms. In such cases where there may be differing terms, it is essential they not conflict.

Joint doctrine and Service doctrine are developed to complement each other. Joint doctrine is written with a focus on how to think in terms of unified action to synchronize joint, Service, and multinational operations with the activities of governmental and nongovernmental organizations. Service doctrine and tactics, techniques, and procedures focus on what to think and how to do things. The development system producing joint doctrine prescribes how its processes will be implemented within DOD.

USSOCOM is one of 16 voting members of the Joint Doctrine Development Community (JDDC) which is comprised of the Joint Staff, Services (and their doctrine development agencies), and combatant commands (Figure 2). The JDDC works closely to operate the Joint Doctrine Development System of lead agents (i.e., those commands designated by the CJCS to lead the development of specific joint pubs), Joint Staff doctrine sponsors, coordinating review authorities, processes and procedures, and the hierarchical framework designated to initiate, develop, approve, and maintain joint publications. Within USSOCOM, the HQ staff, components, and the Joint Special Operations University actively participate in the joint working groups established by the J7/9 to develop the joint publications assigned to USSOCOM. ²

The CJCS tasks USSOCOM to develop SO doctrine which is found in six joint pubs and integrated throughout the remaining 72 pubs of the Chairman's joint doctrine hierarchy. Normally, joint pubs are developed and revised over an 18 month process. This period allows commonsense doctrine to be produced that is well-researched, thoroughly vetted, pertinent, and enduring. The six joint SO pubs and their recent revisions are discussed below. ³

Pub Title

JP 3-05 Special Operations

Highlights:

Revision resumed in Jan 2010; completion by Dec 2010

Addresses recent developments, revisions, and evolution of SOF doctrine, to include command and control, counterterrorism (CT), PSYOP, foreign internal defense (FID), and CMO/civil affairs operations (CAO)

Discusses SO within the context of irregular warfare (IW) Adds discussions of new core tasks-counterinsurgency (COIN) and security force assistance (SFA)

Revises discussion of the original core tasks, with a focus on unconventional warfare (UW) and the HQ-USSOCOM core task of synchronizing the planning for global operations against terrorist networks

JP 3-05.1 Joint Special Operations Task

Force Operations

Highlights:

Addresses organizing, planning, preparing and executing JSOTF operations

Discusses SO/JSOTF command and control (C2) relationships, stresses SOF are employed with SOF C2 intact

Provides initial "in-brief" of JSOTF Commander to JTF Commander

Discusses SOF/conventional force (CF) integration Expands discussion of SO targeting and mission planning

Pub Title

JP 3-13.2 Psychological Operations

Highlights:

Refocuses PSYOP within the context of military and informational instruments of national power and US Government strategy

Expands discussion of joint PSYOP activities at all levels of war (i.e., activities at one level can affect other levels)

Discusses PSYOP support of combat operations; DOD information capabilities in peace; civil authority information support of domestic lead federal agencies; and special operations

Introduces a seven-phase joint PSYOP process into joint operations

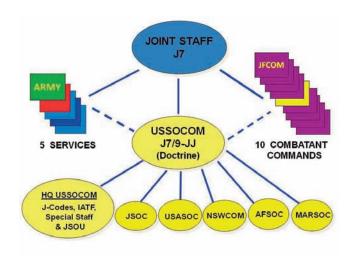


Figure 2 - The Joint Doctrine Development Community

Pub Title

JP 3-22 Foreign Internal Defense

Highlights:

Introduces "sources of power" (financial, intelligence, and law enforcement) which are applied through the instruments of national power

Introduces SFA joint doctrine and defines it as DOD's contribution to unified action by the USG

Proposes the definition of "joint proponent" for JP 1-02, DOD Dictionary of Military and Associated Terms

Pub Title

JP 3-26 Counterterrorism

Highlights:

Redefines and refocuses CT away from obsolete constructs

Reflects policy and strategy adjustments to the evolution of terrorism from a tactic to a transnational threat of strategic proportions

Discusses the relationship of CT with the context of IW and existing doctrine applied to CT operations

Introduces into doctrine the Strategic Campaign Framework for the direct and indirect approaches for conducting CT operations

Discusses the enhanced role of CF in long-term CT and COIN operations

Pub Title

IP 3-57 Civil-Military Operations

Highlights:

Addresses CMO as an inherent responsibility of commanders assigned terrain with civilians present

Expands discussion of CMO as a primary means to synchronize military and nonmilitary instruments of national power supporting stability operations, COIN, and IW

Introduces discussion of CAO and its relationship to CMO within unified action

Joint doctrine development is a dynamic process with a purpose to enhance the operational effectiveness of US forces. Although it is neither policy nor strategy, joint doctrine seeks to make policy and strategy effective in the application of US military power. The Commander, USSOCOM ensures that joint SOF doctrine does its part to enhance such application.

Cource

- 1. Chairman of the Joint Chiefs of Staff Instruction 5129.02A, Joint Doctrine Development System, 31 March 2007.
- 2. United States Special Operations Command Directive 34-1, Joint Doctrine Development, Coordination, and Review, 8 April 2008.
- 3. For access to joint doctrine publications, visit the Joint Doctrine, Education, and Training Information System (JDEIS) through the SIPRNET, visit the US Special Operations Command Homepage-SOF Online, and use the "Joint Doctrine" link. For access through the NIPRNET, visit "https://jdeis.js.mil/jdeis/index.jsp."

Mr. John Brush is a retired Army Special Forces officer. He is currently Chief, Doctrine Branch, within the Proponency Division, USSOCOM J7/9. He holds a Master of Public Administration degree from the University of Kentucky."

SOF Experimentation

TNT as a Pathway to Innovation, Collaboration and Transform

As we begin the New Year, the Futures Concepts and Experimentation Division will focus experimentation to design and conduct focused experiments and apply results to solutions of current and future warfighter challenges. We will also align ourselves to the Joint Concept Development and Experimentation (JCD&E) process to guide future force and capability development by motivating experimentation in and exploration of new operating methods to solve compelling, real-world challenges, current or envisioned. These experiments will result in DOTMLPF and Policy changes. In addition, we have formed resourcing partnerships with Joint Forces Command, Office of the Secretary of Defense for Acquisition and Logistics and the Combating Terrorism Technical Support Office.

This article will talk to the origins of Tactical Network Topologies (TNT) as a part of USSOCOM experimentation and to the processes needed to drive change that helps shape the future capabilities of SOF.

TNT Background

TNT has been a mainstay of the USSOCOM experimentation landscape since 2002. The program, originally titled Surveillance and Target Acquisition Networks (STAN), evolved into a cooperative, quarterly effort sponsored by USSOCOM and the Naval Postgraduate School (NPS). In 2005, the current title, TNT, was adopted.

What is TNT?

It's not a rock song or Tri-Nitro-Toluene. It is, however, a dynamite program. TNT is the USSOCOM /NPS cooperative experimentation program. As the USSOCOM lead for Joint/SOF experimentation, the J7/9 Future Concepts and Experimentation Division partners with SORDAC-ST and NPS and draws on the unique experience and capabilities of USSOCOM operational and staff personnel, NPS professors, NPS students, and a diverse group of technology development resources. These bring operational reality checks, technology exploitation opportunities, and innovative ideas into an organized and rational approach to experimentation.

The primary objective of the TNT Field Experimentation Cooperative Program is to identify emerging technology that can impact SOF operational opportunities to bring quicker success on the battlefield and save lives. This, in turn, influences SOF concepts and technology development toward achievable high-priority capabilities. At the same time the venue provides benefits to special operations, it enables enhanced education for NPS students. Students have the opportunity to test and assess their theses in a field environment with SOF operators providing immediate feedback.

TNT Concept

Engineers who design military equipment typically don't interact with those who use it. Information gets filtered through layers of bureaucracy, complex requirement documents, and specifications that can muddle the true need and adversely restrict the solution set. Conversely, operators may not be aware of technology opportunities or limitations resulting in requirements that are unrealistic or non-optimal. As one venue to overcome these difficulties, TNT encourages participation from a diverse group of operational and technical resources. It brings the troops and the engineers together to provide a unique, collaborative environment, and stimulating interaction between participants. This environment often results in combined technology solutions that provide enhanced, well integrated capability solutions. The quarterly OPTEMPO allows the tactizens (SOF operators and participating vendors, academics, federal, state, and local government organizations) to rapidly adapt and assess their solutions in a field-like environment on a regular, quick-turn-around basis.



TNT Path Forward

Heading USSOCOM's effort for the past year in joint experimentation is Mr. Mike Meyers, USSOCOM Joint Experimentation Chief and Mr. Dennis Granger, Deputy Chief of Future Concepts and Experimentation. "What we do is combine SOCOM with NPS and leverage more than \$60 million of capability gap research into material and non-material solutions designed to help the SOF operator," Granger said. "We work closely with SOCOM's Science and Technology folks to ensure SOCOM stays on the cutting edge of emerging technology. An increasingly critical role of TNT is to enhance identification, assessment and employment of technical solutions that can be immediately applied by the Theater Special Operations Commands against the disparate global threats."

As valuable as the program is, there are continuing efforts to improve it. Principally, the TNT community is striving to achieve increased SOF operational community participation, improved integration with relevant USSOCOM processes, and near-term technology integration and employment in TSOC-driven scenarios. TNT has evolved into a cooperative experimentation program that is getting away from a strict engineering / technical endeavor towards one that is more oriented towards experimenting on objectives that address capability gaps.

A working level, 0-6 led Experimentation Steering Group (ESG) is a conceivable method to increase operational participation and integration with USSOCOM processes. The ESG will validate the USSOCOM capability gaps or themes to be addressed by subsequent TNTs.

ESG workshop participants will assemble periodically to submit, discuss, and review proposals for experimentation. Participants in the workshop will include representatives from the components, USSOCOM HQ staff, TSOCs, and,

on occasion, the Services, Combatant Commands, other Government agencies, and international partners. The workshops will forward nominations to the ESG for experiment themes, scenarios, and execution. In turn, the ESG will combine and deconflict the nominations as necessary to avoid duplication and waste of resources. J7/9 intends to

establish and maintain an electronic repository on the USSOCOM portal to serve as a central hub for these activities. This database will provide awareness of relevant experimentation activities occurring inside and outside of USSOCOM.

Increased coordination between USSOCOM Experimentation and the TSOCs is a valuable opportunity to assess maturing technologies and integrate them for specific TSOC mission application. This process will endorse the operational validity of the experiments and provide a rapid path to employ material or non-material solutions to current Special Operations missions.

Mr. Dennis Granger is the Chief of Future Concepts and Experimentation Division for SOCOM J7/9. Mr. Granger is a former Marine Corps Infantry Officer and Navy SEAL Captain with over 30 years of Service. A qualified Joint Specialty Officer, he holds a Master's Degree from the Naval War College and is a Program Management Professional.

Warfighter Challenges – Engines of Change

"Future concepts are the big engines that drive future warfighting capabilities and solutions. They are the ground thumping NASCAR V-8s. arfighter Challenges (WFC), however, are the smaller, lesser-known engines that drive new capabilities. They are the high-revving Indy series V-4s."

Mike Ellis, USSOCOM Warfighter Challenges Branch Chief

There are a number of ways to substantively change the joint force. Historically, the most well known method of change has been through acquisition of new equipment. Accomplished through Planning, Programming, and Budget System and Defense Acquisition System processes in the beltway, this process has a deep constituency basis with Congressional appropriations. The joint force doesn't benefit only from new equipment; however, new capabilities derived from experimentation and analysis focused on non-materiel solutions adjusts the face of the force itself. Unlike material acquisitions, though, nonmateriel solutions don't have a self-made beltway constituency, so in order to affect such changes, Services and Combatant Commands - including USSOCOM - are using WFCs to affect these non-materiel changes. This article describes WFCs, their place in USSOCOM strategy, and the processes to develop solutions and transition the solutions to the warfighter.

What is a WFC?

A Warfighter Challenge is a detailed description of a military problem requiring solutions to improve joint force capability. A WFC provides a capability definition, a linkage to Joint Capability Areas, and refers to the source of strategic guidance and other supporting documentation required to facilitate understanding and analysis of the issue. USSOCOM's WFCs are related to but differ from the Integrated Priority List (IPL) and USSOCOM's Science and Technology IPL (STIPL) because WFCs require some form or combination of experimentation to arrive at a solution. Whereas, in general, we know the solutions to IPL problems, but we don't have the resources to fulfill the requirement.

The annual Comprehensive Joint Assessment (CJA) is the data call and impetus for Services and combatant commands (COCOM) to determine, prioritize, and submit WFCs. The October CJA drives each combatant commander and Service Chief to assess how well his organization accomplished their mission, determine future Chapter - Warfighter Challenges - Engines of Change

risks and potential capability gaps, and establish ways to mitigate the risks and gaps. The gaps that require experimentation to determine solutions are WFCs. USSOCOM's prioritized WFCs for Fiscal Year 2010 are:

- Enabler, Support, and Sustainment (ESS)
- Capabilities to Special Operations Forces (SOF)
- Security Force Assistance Synchronization
- Countering Threat Finance
- ISR Collection and Analysis Austere Environments
- Special Skills Personnel / Expand Force Enablers
- Conduct Protracted Asymmetrical Warfare and Indirect Activities Globally
- Streamlined Acquisition.¹

USSOCOM WFCs have touch points and weave through USSOCOM strategy. The USSOCOM Strategy 2010 was published 1 Nov 09 followed by the attendant Strategic Plan 18 Dec 09. Both strategy pieces, supported by USSOCOM's Strategic Appreciation, will provide the basis of and simultaneously leverage future USSOCOM WFCs. The seven FY2010 WFCs, especially the ESS, Special Skills Personnel, and Asymmetric Warfare and Indirect Activities WFCs, will provide a vehicle to experiment and develop capability solutions to the three strategy focus areas: The Operator; Capabilities, Capacities, and Authorities; and Strategic Credibility and Influence. The FY2010 WFCs' network, through the USSOCOM vision and strategy, inextricably centered on a consistent theme: the focus on SOF Operators and efforts to develop, field, and employ a Special Operations Force.



How Do We Identify WFCs?

The USSOCOM J7/9 Warfighter Challenges Branch is the office of primary responsibility (OPR) to develop the annual WFC list. The following describes the process the WFC Branch used to develop the FY2010 list, cognizant of the 1 October 2009 suspense for Admiral Olson to submit the CJA to the Joint Staff.

- The WFC branch conducted research and data collection to establish a tentative list of to determine solutions. The team researched strategic guidance including the National Defense Strategy, Global Development of the Force, National Military Strategic Plan for the War on Terrorism, and the 2006 Quadrennial Defense Review to discover potential challenges. Another and more directive source for potential WFCs were Admiral Olson's testimonies to Congress. Finally, the team leveraged the work completed by the USSOCOM 2010 QDR working group and their "one through n" list.
- The WFC team whittled a list of 22 potential chal lenges down to a manageable list of seven.
- "owner" of each WFC to ensure the description was accurate and the amplifying information and experimentation questions would lead to potential solutions.
- USSOCOM J51 staffed the CJA including the WFCs through the headquarters in early September for Admiral Olson's approval 1 Oct 09.

How Do You Find Solutions to WFCs?

The real work – finding solutions to the FY2010 WFCs – began in late October 2009. USSOCOM J7/9 began

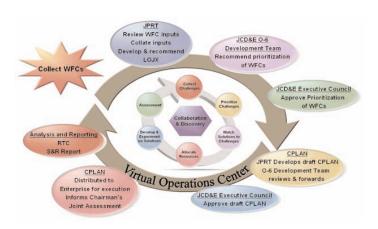


Figure 1. JCD&E Warfighting Challenge Process

processing WFCs using two methods, both based on experimentation. The first is a DOD process shown in Figure 1. and described in CJCSI/M 3010.02C, Joint Concept Development and Experimentation. The second method enables the USSOCOM WFC Branch to explore internal ways to address the WFCs using the J7/9 Wargame and Experimentation Branches. This method drives focused experiments specifically designed around the USSOCOM WFCs.

USSOCOM challenges that need experimentation For the DOD WFC process described in CJCSI 3010.02C, a DOD Enterprise exists to develop an annual Campaign Plan (CPLAN) to address experimentation against WFCs and future concepts. In existence less than five years, the Joint Concept Development and Experimentation (JCD&E) Enterprise is comprised of action officer to 2 star level representatives from the Office of the Secretary of Defense, the Joint Staff, Services, COCOMs, the National Guard Bureau, the US Coast Guard, and partners from Defense agencies, the interagency, and multinational organizations. The group follows a battle rhythm and procedures established in CJCSI/M 3010.02C.

Joint Staff J7 collected all WFCs and forwarded them to • The team collaborated with the USSOCOM J-code JFCOM J9, the lead proponent to facilitate JCD&E Enterprise WFC processing. Following the process identified in CJCSI/M 3010.02C, the Enterprise action officers racked and stacked all 106 DOD WFCs using established formulae to produce a recommended prioritized list. (USSOCOM's #1 WFC, Enabler, Support, and Sustainment for SOF rated #11 on the list.) After the O-6 Development Team and the 2-star Executive Council approved the prioritized WFC list, the AO and O-6-level Enterprise members conducted a "gap analysis" to determine whether or not other activities or existing experimentation could address all or a portion of 2010 WFCs. USSOCOM AOs determined they could leverage several Title 10 Service experiments and existing JFCOM projects to address ESS and ISR WFCs. The results of WFC processing and associated experimentation is captured in the Annual JCD&E Campaign Plan. As shown in Figure 1, the CPLAN goes through an approval process and directs experimentation for the next two fiscal years. Accordingly, the WFCs submitted 1 Oct 09 will be included in the FY 2011/2012 CPLAN.

> USSOCOM J7/9 has some capability and capacity to address FY2010 WFCs sooner than the CPLAN. USSOCOM 17/9 is developing experiments against the USSOCOM FY2010 WFCs that are not sufficiently

covered by existing Joint experimentation. The experimentation will be custom-designed to answer specific Command gaps. Global Scout 2010 will be the primary venue to discover and develop WFC solutions to those uncovered gaps and challenges. The experimental wargame will consist of three Limited Objective Experiments leading to a capstone event in September 2010.

How Do You Transfer Solutions to the Warfighter?

The most important and toughest part of the WFC-to-experimentation-to-solution process is transitioning valid solutions into actionable Doctrine, Organization, Training, Materiel, Leadership and education, Personnel, Facilities, and Policy (DOTMLPF-P) changes. WFC sponsors in collaboration with the USSOCOM J7/9 WFC Branch and Capability Development Branches devise individual plans to shepherd DOTMLPF-P changes to culmination. WFC Branch personnel will guide these changes through the USSOCOM Special Operations Forces Capabilities Integration Development System (SOFCIDS) process and the Joint Staff Joint Capabilities Integration Development System (JCIDS).

WFC sponsors and the USSOCOM J7/9 can transition DOTMLPF-P changes through formal and informal means. The informal pathway may provide WFC sponsors the most rapid means for delivering solutions to the warfighter. Examples include: Joint Doctrine changes affected through the Joint Doctrine Development System (CJCSI 5120.02); changes or updates to Tactics, Techniques, and Procedures (TTP) through the Air, Land, and Sea Application (ALSA) Center change process; changes to the Keystone, Capstone, and Pinnacle courses maintained by the Joint War Fighting Center (JWFC); changes to military education submitted to the Military Education Coordination Council (MECC) and Military Education Coordination Council Working Group (MECC

WG); and changes to organization, personnel, and facilities that have portfolio impacts submitted to the appropriate Capabilities Portfolio Manager.²

The formal or traditional pathway to transition (resulting in a DOTMLPF-P change recommendation) is well documented in

CJCSI 3170.01 and the JCIDS Manual. However, JCD&E organizations must scope their project correctly and document linkages between their WFCs, customer needs, and other validated requirements to ensure transition success. It is imperative that DCR recommendations are clear and concise and directed at the correct DOTMLPF-P solution category (doctrine, organization, training, etc.)³

In summary, the WFCs are engines that drive change. The WFC process provides commanders and Service chiefs a vehicle to affect change and provide solutions to their military problems. In USSOCOM, the J7/9 Warfighter Challenges Branch is the office of primary responsibility for developing and shepherding WFCs through experimentation and the transition to solutions. Ladies and gentlemen...start your engines.

Source:

1 Full WFC descriptions and supporting information can be found in "Hot Links" on the USSOCOM SIPRNET site: http://sofrel.socom.smil.mil/sites/SOKF/Default.aspx
2 CJCSM 3010.02, Manual for Joint Concept Development and Experimentation, 1 Dec 09 (draft)
3 Ibid

Mr. Mike Ellis is the Warfighter Challenges (WFC) Branch chief. The four-person WFC Branch identifies USSOCOM's most pressing issues that require experimentation and shepherds the WFCs through experimentation into WFC solutions. Mike is a retired USAF navigator; commander of the 2nd Special Operations Flight (1994-1996) based at Robins AFB, Georgia and Special Actions Aircraft Manager at USSOCOM from 1996 to 1999.

SOF Baseline Interoperable Standards

Is there a movement to standardize U.S. Special Operations Forces (SOF) Tactics, Techniques, and Procedures (TTP)? The clear answer is no, but there is an on-going effort in Headquarters U.S. Special Operations Command (USSOCOM) to establish standards for certain SOF skill sets that are applicable across all of the components. In existence for over a year, the Training Standards branch (J7/9-TS), within the Knowledge, Training, and Futures Directorate (J7/9) at HQ USSOCOM, is tasked to establish Special Operations Forces Baseline Interoperable Standards (SOFBIS).

The SOFBIS concept originated in February 2006, as a result of an Integrated Process Team (IPT) established under the direction of then USSOCOM Deputy Commander, Admiral Olson. At that time he "...tasked to develop the methodology and process to establish and validate standardization of baseline Special Operations Forces training standards and requirements validation." Then Brigadier General Steven J. Hashem (the current J7/9) kicked off the IPT meeting by relaying ADM Olson's vision and intent:

"The Training Standards and Requirements IPT was born out of necessity and specifically formed to address joint SOF advanced training requirements, methods, and standards. The IPT's purpose is to help enable structure and consistency across the joint SOF force wherever it is appropriate, while recognizing that you are each primarily responsible for training to standards that you set within the components. This IPT is meant to augment and assist your impressive efforts to train, qualify and certify our rapidly growing force, not to centralize training management at USSOCOM. The initial focus will be on combat diving, military freefall, and combat medicine. Later efforts will address shooting/sniping, driving, climbing, COB and more—in a sequence largely determined by you. As you begin this process, keep in mind the big-picture end-state training requirements of this joint force in the context of SOFpeculiar vs. Service-common training standards and executive agency and proponency. You must remain open-minded and non-parochial in your approach to developing/enhancing both component and joint SOF solutions to our growing collective training needs.

This IPT is not so much about how to train (you'll determine that for the most part) as about what will we train to do. Its product will be driven by operational requirements. A big part of determining which advanced skills ought to have a SOF standard and who is responsible for what.... Your mission is to swiftly resolve this issue—at the strategic level...."

Initial efforts from the SOKF-J7-T (now J7/9-T) addressed Combat Dive and Military Freefall skill sets. In July 2007, Major General Hashem approved conditions and standards for both tasks which were published in memorandum format for distribution. The process has matured over the years and now J7/9-TS efforts are being published under the umbrella of the USSOCOM 350-series Training documents.

Formally established in October 2008, the J7/9-TS is tasked to establish SOFBIS. Led by a Special Forces Lieutenant Colonel, and manned by SOF experienced, Government Service and contractor personnel, it functions as the institutionalized, enduring effort established by the Joint Training Branch IPT. J7/9-TS developed its schedule of work from the SOFBIS Task Prioritization List (Figure 1). The Task list was compiled from multiple sources including: CDRUSSOCOM FY 08-10/FY Training Guidance 10-11, USSOCOM/DCDR Guidance/Priorities, Joint Training Branch IPT results (Feb 06), Component inputs, J7/9 goals and objectives, the Unified Command Plan, USSOCOM D10-1 Terms of Reference-Roles, Missions, and Functions of Component Commands, Service requirements, and existing USSOCOM 350-series manuals. The branch's methodology is to optimize efforts by undertaking one or two larger, more complex (and potentially more contentious or more "service demands" intensive) tasks; while simultaneously accomplishing other less demanding and time consuming "low-hanging fruit" skills/tasks.

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With Training Standards branch acting as the SOF Advocate³, establishing SOFBIS is a collaborative and time consuming process (Figure 2) of researching, analyzing, coordinating and recommending appropriate standards for each skill set. As a component-driven product, SOFBIS development is based on the Lead Component⁴ and coordinating components providing information through formal data calls, component command visits, component Subject Matter Experts providing current input and an operator's "reality check" at the J7/9-TS sponsored working groups. Each USSOCOM component possesses specific capabilities and fulfills particular service and joint requirements, thus the SOFBIS produced will frame a capability that does not interfere with those component "peaks of excellence." The SOFBIS serves as the foundation from which component commanders take full advantage of the Joint Training System as it defines the conditions and standards for SOF specific mission essential tasks.

Using the USSOCOM M350-30 Special Operations Forces Baseline Interoperable Sniper Training Standards as an example, the process took eleven months from inception to publication. The time line included data calls, command visits, working groups, continuous e-mails and phone calls to come to an agreement on a SOF Sniper SOFBIS. Initially hesitant, working participants were soon leaning forward when they realized they owned the process, the end product would be directly influencing community wide policy, and their commands would ultimately benefit from their invested efforts.

The SOFBIS Sniper working group had an additional positive outcome. Through the relationships established among the participants, a SOF Sniper "Community of Interest" (COI) has been formed on the USASOC portal ensuring that professional knowledge and TTPs will continue to be shared across the components. To assist in knowledge sharing, the J7/9-TS maintains SOFBIS related folders on its HQUSSOCOM SIPRNET portal page.

2010 will be a busy year for Training Standards branch. An internal realignment sensibly combined the Standards Branch and the Assessments Branch tasks to maximize personnel talents and align Training management oversight into a comprehensive process. The standardization of the publication format and the lessons learned in the publishing process will shorten the production timeline. The recently updated USSOCOM D 10-1 and the revised USSOCOM D350-1 USSOCOM

Military Training will provide supporting documentation for writing Headquarters guidance for component training policy.

In keeping with ADM Olson's guidance at the IPT, the final version of the M350-30 is only seventeen pages long. It articulates training standards, it does not standardize training. It is strategic level training guidance, outlining for the components "what to do" but not "how to do it!" As a policy document, it provides component Headquarters a basis for planning and budgeting resources to improve training effectiveness and efficiency.

So to answer the question that began this article, no, the Headquarters isn't trying to "Standardize" SOF TTP. Instead, the Training Standards branch within the Knowledge, Training, and Futures Directorate has developed a process that puts the components in the driver's seat for determining Special Operations Forces Baseline Interoperable Standards. As a result, the 350-series manuals the branch produces from component input; will afford the components the ability to optimize their capabilities-based peaks of excellence while maximizing training efficiencies and ultimately produce a more capable SOF warfighter.

Sources

1 Minutes from the Inaugural Meeting and Charter creation of the SOF Training Standards and Requirements IPT, Feb 06

2 Ibid

3 SOF Advocate. For an area of interest, the SOF advocate is responsible for approving SOF Baseline standards within that area as well as adjudication and approval of the following: concepts, tactics, techniques, procedures, doctrine, training programs, training support requirements, research, development, test and evaluation (RDT&E) and equipment. USSOCOM has approval, validation and certification authority. Per USSOCOM D 10-1, 12 Dec 09

4 Lead Component. The Lead Component will recommend standardized SOF baseline qualifications for all Components in the designated skill, capability, or task. This includes evaluation of the skill levels produced at all USSOCOM Component schools and training facilities against SOF baseline qualification requirements. Testing, validation, and standardization of equipment are essential to endure SOF interoperability and safety. Lead Components must also develop, publish, and distribute safety messages, equipment bulletins, and quality deficiency reports. Authorities will be assigned at time of assignment. The Lead Component is required to coordinate with all Components for any proposed establishment/change recommendations. Per USSOCOM D 10-1

Mr. Herrera is the AFSOC Training SME within the Training Division of USSOCOM's J7/9 Directorate. He and his fellow SMEs in Training Standards Branch are responsible for writing SOFBIS in the USSOCOM 350 series directives. He is a retired USAF officer and holds a masters degree in Defense Analysis from Naval Postgraduate School.

Unmanned Aircraft Systems (UAS)

The recent establishment and initial operating capability (IOC) of the Small Unmanned Aircraft System Formal Training Unit-East (SUAS FTU-E) at Choctaw represented a huge paradigm shift and is a significant move for SOCOM in developing a central point of initial qualification training (IQT) for Unmanned Aircraft Systems (UAS). Over the past few years, almost all of the UAS training for SOF [barring mature programs such as Predator has been provided by vendors/ contractors and/or mobile training teams (MTTs). This way of providing IQT to SOF has not met the current demand, and the standards of training have not been adequately upheld and have been extremely difficult to monitor and assess. The real solution has been in establishing a school house or a center of excellence where prospective students could receive the same standardized training. This benefits not only SOF but the joint force in many ways and has potential to mitigate several problems we repeatedly see.

The past and current UAS training methodology was simply not sustainable and did not support UAS operator requirements over the long term. Additionally, UAS training conducted at numerous geographically separate sites throughout CONUS by numerous contractors made assessing the quality of training nearly impossible. Having a USSOCOM -operated and controlled training venue will facilitate our qualitative and quantitative control of SUAS training as well as our ability to ensure adherence to applicable Joint and SOF standards. The idea was that a SOF UAS training center would provide: the oversight needed to manage the SUAS training programs; the flexibility to amend the training courses and to incorporate Joint and/or USSOCOM-approved syllabus changes rapidly; a way to maintain an instructor cadre base capable of providing consistent high quality training; a method to provide qualifications accepted among government institutions to operate UAS safely while providing this capability at a greatly reduced cost.

The original thoughts behind the SOF joint training center were that training would be conducted by an instructor cadre composed of active duty personnel, department of defense (DoD) civilians, and DoD contractors. The SOF joint training center would consolidate Basic UAS Qualification (BUQ), IQT, Mission Qualification (MQT), and instructor upgrade training at a central facility under

common Joint syllabi and would increase scheduling efficiencies, while reducing overall training costs. Adequate student-to-instructor ratios would allow the full implementation of the UAS training program with the associated qualification levels to include incorporation of ancillary training and secondary training benefits. The current accepted ratio is 5:1; however, there are on-going discussions of a 4:1 ratio to be adopted as the new standard. Insufficient student to instructor ratios preclude consistent high quality training as well as the assurance that all required tasks – as directed by the CJCSI 3255.01 and USSOCOM Directive 350-9 – are met.

The SUAS FTU-E (Choctaw) reached IOC in October 2009 and represents the collaborative work of several different J-codes and offices from the SOF components, as well as The U.S. Navy's Naval Air Station Whiting Field, who owns the land on which the FTU-E is located. Its mission statement is: To provide Special Operations and Air Force operators and instructors with relevant, tailored SUAS training; increasing the effectiveness and security of the teams they support. Current instructor breakdown includes MFP-11 and MFP-4 funded positions: 4 government civilians, 6 contracted instructors, 3 contracted support personnel and 1 Officer In Charge (pending AFSOC/CC decision). SOF student throughput for FY10 and future years is 420 students, with an Air Force student throughput of 230 students, resulting in an annual cost savings of \$1.2 million over vendorprovided training.

The ability to train SOF operators from all of the components under one roof ensures that all SOF will be



Chapter - Unmanned Aircraft Systems (UAS)

held to the same training standards. This in turn will allow more interoperability between the components in theater due to the qualification commonality that will result from all components having been trained to the same standards. Additionally, the cost for the training will be significantly reduced for the components and the program will be much more effective in filling urgent needs. FTU-E will set the new standard as we look to establish an FTU-West on the West coast with Naval Special Warfare Command as the lead. Partnership talks with the services have already begun [and in some cases embraced] as they understand that the overall utility of the school houses will benefit the Joint force in the long term while mitigating significant training deficiencies as well.

The J7/9-TU office fully embraces and supports the "end to end" training approach as we look to continue pursuing the school house approach to training. There is a dire need to continue to develop training programs to facilitate the development of a UAS operator and equip him/her to be effective on the battlefield. IQT is not acceptable as a stand alone program; there needs to be robust advanced and mission qualification training programs developed by a cadre of subject matter experts to fully equip the SOF UAS operator. The ability of SOF to continue to effectively exploit the capabilities of current UAS programs and those to evolve from the various CMNS, JUONS, RAF initiatives, etc. will continue to require organization and management from the HQ level that is focused on long term objectives with flexible resourcing tools and the ability to coordinate and keep pace with industry and technological advances.

Mr. Jordan Binion is the Group 1 UAS subject matter expert in the J7/9-TU, unmanned Systems Branch. He is qualified on multiple UAS platforms and has operational SOF experience in multiple AOR's. Mr. Binion spent 5 years on active duty in Naval Special Warfare as a Special Warfare Combatant-Craft Crewman (SWCC) where he was assigned to Special Boat Team Twenty-Two.



3D Modelling

"Leveraging Advanced Technology to Enable SOF Mission Planning, Preparation, and Rehearsal for Ground, Maritime, and Air Operations in a 3D Virtual Environment."

Required Capability

The United States Special Operations Command (USSOCOM) has long been a leader in the development and use of modeling and simulation for aviation training and planning. Over the years, however, there has been a critical capability gap with air mission rehearsal and all facets of ground and maritime modeling and simulation. Several recent lessons learned from combat operations substantiate a renewed focus on this long-standing requirement.

United States Army Special Operations Command (USASOC), Air Force Special Operations Command (AFSOC), Marine Special Operations Command (MARSOC), and Naval Special Warfare Command (NSWC) have Master Plans that address the capability requirement to perform mission rehearsal in live, virtual, and constructive (LVC) environments. Resources have been previously allocated unevenly across the components, resulting in few or no virtual and constructive capabilities for ground and maritime training and mission rehearsal. Emerging defense and commercial off-the-shelve virtual technologies should prove to enhance mission preparedness for ground and maritime SOF. Special Operations Aviation should also capitalize on these advanced technologies.

Thus, a requirement for a virtual mission rehearsal capability does exist for all SOF (National and Theater ground, maritime, and air), using geo-specific terrain in a 3D virtual environment, providing a first-person shooter experience supported by multi-echelon command and control (C2). FM 17-95 defines Mission Rehearsal as a capability for organizations and operators to plan, rehearse, and evaluate specific operational missions in an effort to minimize the probability of detection and reduce risk and combat losses during the actual mission performed over the same virtual terrain as the actual mission. An enhanced mission rehearsal capability will likely increase the warfighter's understanding of complex operating environments.

Vision

What if SOF could "see" high value targets, concealed locations for potential threat, and rehearse multi-unit actions on the objective in geo-specific terrain?

What if SOF could survey maritime topography before physically reconnoitering a beach landing?

What if SOF could detect IED indicators along an ingress route, causing the bypass of that route, reducing or eliminating the effects of an IED detonation?

What if SOF could accomplish these and other mission rehearsal scenarios in a 3D environment with real/near-time intelligence?

A mission rehearsal capability could change how SOF prepares for and executes unilateral and multilateral missions. In fact, a 3D immersive environment could improve training, planning, preparation, rehearsal, mission execution, mission summary/after-action reporting, and planning for branches and sequels. It would potentially provide a capability to significantly improve how the planner and operator views battlespace, terrain, meteorological, and oceanographic effects, and prepare for situational dynamics influencing the ability to accomplish strategic goals.

Optimally, a SOF mission rehearsal application will have to support interoperability and flexibility and link current SOF TTPs. The Capabilities Development Document identifies Key Performance Parameters for net-ready, stand-alone operations, and Special Operations Mission Planning Environment (SOMPE). Further, the rehearsal application will add new technologies to the SOF battlespace awareness arsenal and leverage existing baseline applications and capabilities to achieve it. The virtual environment is expected to incorporate a soldier's mission load, weapons, munitions, radios, sensors, and mobility equipment.

The vision incorporates an immersive, highly visual, 3D rehearsal environment with the capability to assist in synchronizing forces, improving 3D battlespace, and

enhancing situational awareness. This will also be a warfighter and staff decision-making tool, providing interactive visualization and the ability to integrate unlimited aspects of human terrain, language, and culture.

Challenges

Until recently, the technologies to provide high quality modeling and simulation to the ground and maritime operational environments were either not available or under-developed. On the other hand, the entertainment industry continues to produce very immersive, virtual environments that can appear to accurately simulate the environment. When closely analyzed, however, it becomes apparent there is a wide gap between the goals of the entertainment market and the requirements of the military. This gap continues to narrow over time due to demands placed on industry by gamers who want a more realistic environment for virtual game-play.

While warfighters' needs will drive the virtual mission rehearsal requirement, consideration should be equally given to developing available hardware. A virtual mission rehearsal capability must operate on USSOCOM Tactical Local Area Network (TACLAN) notebook computers and servers. This extends the rehearsal capability for the users to the battlefield and permits use in garrison, during mission planning and preparation, while en route, and at all Joint Special Operations Task Force (JSOTF) and tactical unit locations. In other words, this capability must be available during course of action development, analysis, wargaming, execution, and post-mission activities.

USSOCOM components can successfully conduct mission rehearsal in joint/combined live, virtual, and constructive (LVC) environments only with the availability of appropriate resources and infrastructure. The need to balance active engagements against a global irregular adversary with the requirement to remain prepared to address a traditional adversary underscores the complexity of the joint training challenge. Lack of a robust mission rehearsal capability is a critical operational and training shortfall that can be overcome. The combination of the future environment and security challenges, combined with future joint training realities, make it imperative that USSOCOM transform joint training to close these gaps.

Advance Technology and Integration

SOF warfighters could benefit from a mission rehearsal capability that leverages and integrates today's and tomorrow's technical advances, providing more in-depth,

accurate, timely, usable, and pertinent rehearsals. USSOCOM requires the ability for SOF to conduct joint, full range of military operations, networked, integrated, and interoperable mission rehearsal in a LVC, geo-specific environment. It will be fully interoperable with the SOF mission planning systems and SO Mission Planning Environment (SOMPE).

There are several commercial off the shelf (COTS) interactive models that already have the ability to replicate missions that provide a mastery of tactics, techniques, and procedures (TTPs). Ultimately, 3D modeling and simulation supporting the full-spectrum of SOF operations should provide rehearsal:

- In garrison
- En route to target objective
- At Forward Operating Base (FOB)
- In remote, austere operational locations

These functional capabilities must be available on a persistent basis and for use at home station, en route, and deployed, as driven by the force's operational tempo, and while providing realistic training and rehearsal opportunities.

"[W]e will continue to press ahead with vigor in our pursuit of techniques and technologies that mitigate our adversaries' inherent advantages."

Admiral Olson, 2010 Commander's Guidance

The Way Ahead

The desire is for the mission rehearsal application to enable SOF to conduct mission rehearsal in a virtual or constructive, 3-D geo-specific environment to support training, exercises, planning, rehearsal, and post-mission summary/after-action reporting. It will be integrated with SOF mission planning, the SOF common database (CDB), and SOF language and cultural software, providing a tool for individuals, teams, or a large joint force to conduct SOF mission rehearsal. Additionally, a fully integrated mission rehearsal application will run on USSOCOM automated equipment and networks without the need for specialty simulators or special facilities. It will be used by all SOF to support mission planning, rehearsal, and execution from individual to CJSOTF.

Summary

Mission rehearsal capability will provide all SOF elements (National and Theater Ground, Maritime, and Air) the ability to train, plan, and rehearse over mission terrain in a 3D virtual environment providing a first-person shooter experience with multi-echelon C2. It will add to the speed of execution, knowledge empowerment, situational awareness, and combat decision-making skills for SOF. Further, it will produce the USSOCOM CDB for rapid delivery of virtual terrain layers for ground, maritime, littoral, and aviation support.

This rehearsal system will include the SOF-unique operational, language and cultural capabilities that are routinely employed by USSOCOM throughout the operational continuum. Once developed into the required capability, virtual 3D mission rehearsal will:

- Facilitate SOF synchronization, battlespace deconfliction, and situational awareness.
- Provide decision-making tools for the warfighter and staff through visualization.
- Incorporate aspects of human terrain, e.g., language and culture.

Taking the fight to the terrorist begins by taking away the home field advantage. USSOCOM and its components are vigorously pursuing that effort through a 3D virtual mission rehearsal capability. This endeavor supports Admiral Olson 2010 Commander's Guidance where he states, "[O]ur priorities must work to the advantage of those who will face combat, assume greater personal risk, live by their wits or represent us in far-away places alone or in small groups."

This article was a collaborative effort from J7/9 Training Requirements Branch (J7/9-TR). J7/9-TR provides operator focused training guidance; and functional management and requirements advocacy for SOF training and mission preparation systems. The article was compiled and edited by Mr. Randy K. Jackson, of Gemini Industries, Inc., a Senior SOF Program Analyst. He was a career SOF officer, spanning years from Captain to Lieutenant Colonel, and holds a Juris Doctor degree from the Southern Methodist University.

The Chairman's Joint Training System

Focused Resources, Meaningful Metrics, and Command-Wide Integration USSOCOM's Training Trifecta

What is the Chairman's Joint Training System (JTS)?

The Chairman of the Joint Chiefs of Staff (CJCS) developed the JTS in order to establish a common process using a common language throughout our combatant forces. The JTS is a requirements-based, structured analytical methodology that provides commanders with the ability to focus critical training resources where they produce the timeliest results to the force demographic with the greatest need. In essence, it gets the right training to the right force at the most appropriate time. By using a four-phase process that identifies the mission-derived training requirements, gaps and/or deficiencies and targets the specific training audience and the best training method for that audience, the commander is better able to allocate his limited resources to produce the most effective training. In addition, as he proceeds through the phases, he develops and collects pre-defined metrics that record his training success or deficiencies.

Historically, the most limited training resource has been actual training time with the training audience. The JTS provides the commander with the ability to maximize that limited time and gain the greatest results in the process. It also allows greater integration across the Joint Training Community through the use of this DOD-wide common process. We will talk about the four phases in greater detail later in this document.

Why is This Important?

Early in the Bush Administration, then Secretary of Defense Donald Rumsfeld began a program called Training Transformation or T2 for short. As an integral part of T2, Secretary Rumsfeld strove to link previously stove-piped DOD processes into a more fully integrated system-of-systems. The thread he used to stitch these systems together was the Universal Joint Task List (UJTL). The UJTL is a library of tasks that describes military tasks in a common language complete with "conditions" under which the task will be performed and "standards" to which the task will be executed. The goal of this <u>Universal</u> language is to promote common understanding and capability expectations between commanders employing

American forces. When selected UJTL tasks are linked to particular mission directives, they form the basis of what we know as Joint Mission Essential Tasks (JMETs).

The result of the Secretary's T2 efforts is that today we operate in a predominately UJTL-centric universe. UJTL tasks are used as the foundation for readiness reporting, joint training, resourcing (JCIDS) and soon will be used in capability-based planning. The very same JMETs and their associated supporting tasks are used to define requirements, tailor training, and determine readiness throughout every combatant command, Service and combat support agency (CSA). This common process is underwriting great strides in integration efforts across the DOD.

Why Does USSOCOM Use the JTS?

USSOCOM's role is defined in both law and regulation. Title 10 USC, Section 167 spells out the Commander, USSOCOM's responsibilities in regards to the SOF force. For example, the Service-like responsibilities to organize, train and equip are captured in this section of U.S. law. The JTS provides the Commander with some of the metrics necessary to assist him in accurately reporting on the combat readiness of SOF forces.

Also, the regulatory requirement for the JTS is provided by Chairman of the Joint Chiefs of Staff Instruction 3500.01E, Joint Training Policy and Guidance for the Armed Forces of the United States clearly states "The JTS shall be used to manage training throughout the Department of Defense..." Also, the Chairman of the Joint Chiefs of Staff Manual 3500.03B, Joint Training Manual for the Armed Forces of the United States adds "This manual provides guidance to the

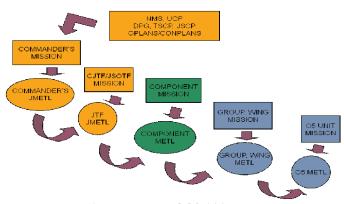


Figure 1: Integrated JMET Structure

combatant commanders when implementing the Chairman of the Joint Chiefs of Staff (CJCS) policy for developing joint mission-essential task list (JMETL), planning and conducting joint training, and assessing command readiness with regard to joint training. The combatant commands, Services and combat support agencies (CSAs) will use this manual when using the Joint Training System..."

Not unlike USSOCOM's Strategic Planning Process that produces the strategy-to-task model used to allocate resources throughout the command, the JTS provides a mission-to-task model that is used to identify and apply training resources and develop metrics that can be used for specific reporting and assessments.

What Does the JTS Do for USSOCOM?

The JTS process is the "sausage grinder," if you will, that converts National Military Strategy into measurable training down to the unit level. Using the JTS process that identifies mission-derived training requirements (JMETs), stratified by their appropriate level-of-war (strategic national, strategic theater, operational, and tactical), and integrated with the JMETs of subordinate commands (components, JTFs, etc.), the JTS translates strategic mission taskings (OPLANs, CONPLANs, UCP, etc) into measurable specific individual tasks.

As the integrated JMETL structure makes it way down the chain of command, we see the logic in this level-of-war approach. HQ USSOCOM's mission is global in nature; therefore, the majority of its tasks are strategic national. As we progress to the JTF and Theater Special Operations Command level, their focus becomes more strategic theater oriented. SOCOM's component commands have a more operational focus and their subordinate units tend train mainly at the tactical level. It is at the unit level that the joint tasks most directly link to the Service tasks. So taken in the aggregate, the JMETL process is able to capture the entire scope of the SOF mission.

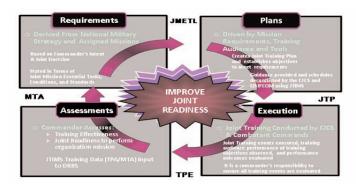


Figure 2: CJCSI 3500.01E, Figure B-1. JTS Four-Phase Process

A side benefit of the JTS process is that it contributes to greater interoperability through the linkage of supporting tasks to higher headquarters JMETs and the increased integration of Interagency/Multinational Partners. The Interagency community has embarked on a parallel JTS effort thru the development of Agency Mission Essential Task Lists (AMETL) and their integration into the DOD JTS construct.

The Four-phased JTS

The JTS consists of the four phases: Requirements, Plans, Execution, and Assessments. The full cycle completes once every year. The assessments (phase four) from one year identify training gaps and deficiencies that are fed back into the requirements development (phase one) for the next year to be addressed and corrected. Each phase produces a product that is used in the following phase. We will briefly address each phase and the products they produce.

Phase One - Requirements

The requirements phase can best be described by the question, "What do we need to do?" As such, mission analysis kicks off the requirements phase. All tasking documents (OPLANS, CONPLANS, UCP, JSCP, etc) are reviewed for specified and implied unit mission taskings. Once identified, a concept of operation is crafted to execute those mission sets. The UJTL is then consulted to build the required task list necessary to conduct the concept of operations. This list can vary in length depending on the complexity of the mission tasking. The Commander will then apply his "essentiality criteria" to this list of tasks. All tasks do not have the same mission impact. For instance, the majority of tasks could fail and result in a degree of mission degradation, but overall the mission could still succeed. However, there are a handful of tasks that could conceivably cause total mission failure were they to fail. It is the commander's prerogative that identifies those few "essential" tasks. These then become the JMETs, and when placed in a list they become the JMETL. All other tasks then become supporting tasks. HQ USSOCOM has identified almost 400 tasks but has only 17 essential tasks. This total list of tasks is what defines the USSOCOM mission and drives the tasks to which we need to train. A point of interest regarding systems integration is that all JMETs are developed in the Defense Readiness Reporting System (DRRS) and are then automatically migrated to the Joint Training Information Management System (JTIMS) to be used for training. This is another example of different processes

using the same mission derived JMETs.

Phase One Output: JMETL

Phase Two - Plans

The plans phase can best be described by the two questions "Who needs to do it?" and "How do they do it?" In this phase we build the command's Joint Training Plan (JTP). The JTP resides on JTIMS and is comprised of a series of eight tabs. To build the JTP we complete a few important steps:

- Revise the Commander's Training Guidance (CTG)

 This is annual guidance to the force where the commander articulates his prioritized training focus areas. These can be emerging requirements and/or continuing requirements where additional effort is required.
- Refine the Training Audience What particular part of the force requires what training? This analysis is crucial to ensure that needed training is targeted on the specific segment of the force most in need. Significant time and resources are spent providing unnecessary training to those with little or no actual need.
- Develop Training Objectives Once the commander identifies his training priorities in the CTG, the JMETs that support those priorities are selected. Training Objectives (TO) are then developed to help structure the training events to train to those JMETs.
- Determine Training Methods This is one of the most overlooked aspects of developing a JTP. When we talk about training, most military members immediately think of exercises. While exercises are a very effective training method it is not the only one available. There are also classroom academics, distributive learning, workshops, and senior leader seminars just to name a few. A balanced mixture of these training methods spread across selected elements of the training audience can accomplish effective training while saving time and money.
- Design and schedule Training Events Based on the work accomplished in the previous steps, specific training events are developed using the TO to plan training of the selected JMETs.
- 149 Publish the JTP in JTIMS.

Phase Two Output: JTP

Phase Three - Execution

Phase three can be characterized by the simple statement "Just do it!" It is in this phase where we execute the Joint Life Cycle for the training events developed in Phase two. During the execution, pre-planned observations (Task Performance Observations (TPO)) are captured and entered in JTIMS. The TPOs are used to determine if the training audience can perform to the level described in the TO. TPOs can be captured by actual demonstrations, briefings, etc. Multiple TPOs are then collected for each TO and analyzed to produce the Training Proficiency Evaluation (TPE). The TPE answers the question "Did I meet my TO?" An After Action Report (AAR) is produced and provides a "first-look" on how well the training audience achieved their TOs.

Phase Three Output – TPO, TPE, AAR

Phase Four - Assessment

Phase Four can be characterized by the question "How Did We Do?" The Joint Training Manual describes this phase as "...how training evaluations from multiple training events are converted into an assessment of training readiness and mission essential task proficiency." In perhaps what is a gross over simplification, the process works as follows:

- Analyze TPEs from Phase Three. Review relevant Lessons Learned in other military operations. Prepare staff/unit assessments.
- Develop Training Proficiency Assessments (TPA) All TPEs are analyzed to develop the TPA. The TPA answers the question "Is the training audience trained to execute the JMET (or other

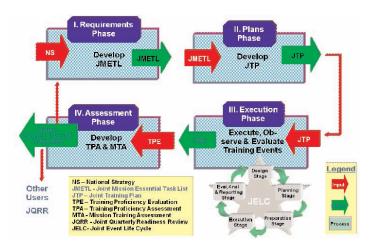


Figure 3: JTS Input-Output Process by Phase

tasks) to standard?"

- Develop Mission Training Assessment (MTA) All the TPAs are analyzed. This shows the commander that all the selected JMETs have been trained and defines the command's ability to perform that mission area. The commander approves the MTA and it is entered in JTIMS.
- The MTA migrates from JTIMS to DRRS and populates the training readiness tab.

Phase Four Output - TPA and MTA

Summary

The Joint Training System's four-phased building block approach provides the pre-planned analytical framework that takes the command from mission-to-task to metrics collection and assessment. This provides the commander with the essential mission- based data that he needs to make an accurate appraisal of the command's training to meet its assigned mission. It also provides a proven methodology that helps apportion scarce training resources to where they are most urgently needed.

As with all complex strategic undertakings, the "devil" in the JTS lies in the details. It requires actions at all levels throughout the command. All staffs must fully grasp the Commander's guidance and priorities, be able to apply strategic concepts, and work to constantly improve integration efforts both within the command and across DOD. However, this is no "Herculean Task" and the process will guide us to success. Successful implementation of the JTS' analytical methodology will allow the commander the ability to ensure that his training priorities are met, measured and integrated throughout the command. The perfect Training Trifecta.

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