THE AIR LAND SEA BULLETIN

JSHIP
Joint Shipboard Helicopter Integration Process

Strategic, operational power aboard naval vessels

by LTC Thomas McDaniel, USA

"Nations successfully coordinate land, air, sea, and space forces to multiply combat effectiveness; those that do not, lose." (Joint Military Operations Historical Collection, July 1997).

Nations that have successfully projected power on a regional or global scale have used ships. Even the ancient civilizations of the Phoenicians, Greeks, and Romans understood the importance and advantages of joint operations. Each ancient empire was able to leverage the best capabilities of their naval and army forces and project their span of control over long distances, allowing them to maintain control of their respective empires.

In more recent history, this ability to project power through the use of joint forces continues to be a valuable national asset. Britain, a relatively small, island nation, exerted disproportionate global political and economic influence with its ability to deploy robust forces from the sea.

The United States' strategy of projecting its influence around the world has met with varying degrees of success in the last half of the 20th Century, primarily by

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THE AIR LAND SEA BULLETIN (ALSB)

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Purpose: *ALSA Center publishes The ALSB three times a year. ALSA is a multi-Service DOD field agency sponsored by the U.S. Army Training and Doctrine Command (TRADOC), Marine Corps Combat Development Command (MCCDC), Navy Warfare Development Command (NWDC), and Headquarters Air Force Doctrine Center (AFDC). This periodical is governed by Army Regulation 25-30, Chapter 10. It is a vehicle to "spread the word" on recent developments in joint warfighting concepts, issues, and Service interoperability. The intent is to provide a cross-Service flow of information between and among readers around the globe.* **Disclaimer: Since The ALSB is an open forum, the articles, letters, and opinions expressed or implied herein should not be construed to be the official position of TRADOC, MCCDC, NWDC, AFDC, or ALSA Center.**

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Secretary of the Army

Commander, U.S. Army Training and Doctrine Command

DIRECTOR'S COMMENTS - UPDATES, IMPROVEMENTS CONTINUE TO BETTER SERVE THE WARFIGHTER

For some months now, change has been the theme at ALSA. We have overhauled every aspect of our organization: MTTP processes, research procedures, information systems and management, joint working group procedures, links to test and evaluation programs, warrior outreach, and many others. An important change for users of ALSA publications can be found at our new website **https://lad.dtic.mil/alsa**. All ALSA publications, including back issues of the ALSB, can be accessed at this new, more secure website. ALSA personnel have risen to the challenge presented by our new procedures, systems, and processes, and improved performance in every aspect of the ALSA mission – *meeting the immediate needs of the warfighter!*

Another important change for ALSA is the arrival of our new editor, Matt Weir, who comes to us from a Public Affairs position at March Air Reserve Base. His expertise ensures that every publication that bares the ALSA logo will continue to be professionally edited and completed with the highest quality. Matt has also brought a fresh look to the ALSB (as can be seen with a look at the cover of this issue), as well as a new dynamism to its substance. Still, these improvements have not changed the ultimate purpose of the ALSB.

The Air Land Sea Application Center was started in July 1975 when change was needed to bridge the information gap between the services. The ALSB began supporting this effort with publication of its first issue January 3, 1977. The ALSB is intended to provide a forum for Service members and DoD employees to address joint issues—especially those concerning interoperability and experimental concepts. Many of the articles submitted to this bulletin have gone on to spark publications that have been written here at the application center. ALSA organization, processes, and publications have continued to evolve and improve year by year because of the ideas that flow to us from the field. The insights offered in this month's articles remain true to the purpose of the ALSB with four pieces that address hot topics from the last few months.
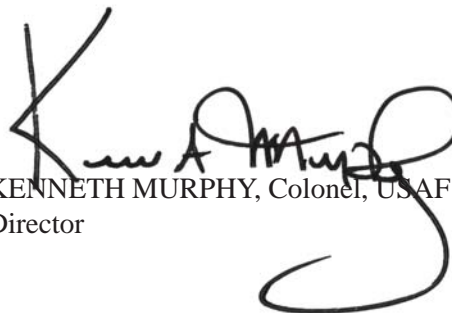
In the first article, Army Lt. Col. Thomas McDaniel, an experimental test pilot and the deputy director of the Joint Shipboard Helicopter Integration Process Joint Test and Evaluation Program (J-SHIP JT&E) is at the forefront of change. He is researching the very act of conducting battle and looking to improve the capabilities of the United States military.

The second article, from the Joint and Combined Staff Officer School, calls for change in the Global Command and Control and Common Operational Picture Systems.

The decision making process for the Joint Force Commander are discussed in the third article, with recommendations for improvements in both areas.

Finally, be sure to review the listing of new ALSA publications available in the back of this issue of the ALSB and at our new website, https://lad.dtic.mil/alsa.

We welcome suggestions for improving the ALSB, as well as any comments about this month's articles and articles from past issues. Use the bulletin to get your ideas to the joint community. Please send your submissions for future issues of the ALSB to Matt at alsaeditor@langley.af.mil and we will include them in upcoming issues.

KENNETH MURPHY, Colonel, USAF
Director

The value of this publication is directly related to the quality of input received from our audience. If you don't see the topic that you need, *tell* us. Better yet, send the editor an article on a joint warfighting topic for publication in the bulletin. Some possible *HOT* topics are—*homeland security, Operation Enduring Freedom, new operational capabilities, and new challenges and solutions for close air support.*

Army AH-46 Apache helicopters stand ready to launch from a Navy platform. Combining forces should enhance the ability of the Joint Force Commander.

Continued from page 1

relying heavily on the Marine Corps and Special Operations Forces (SOF). Given the current political scheme, and global uncertainties, even more requirements will emerge requiring these forces and more.

How should we address the need to rapidly project power to far-flung, underdeveloped or hostile areas across the globe? Should the Services stay in their lane, focus on the daily grind, or turn their collective experience, talents, creative and innovative energies toward achieving synergy without regard, or with less regard, to parochialism and paradigm? To remain relevant to fight the existing and future asymmetric threats on a global scale, the Army must develop and nurture skills appropriate to effectively neutralize future threats, and do so while maintaining economy of force at the tactical operational and strategic level. This means taking a realistic look at the threats and not just training to satisfy some scenario we devise.

"The art of war is simple enough. Find out where your enemy is. Get at him as soon as you can. Strike at him as hard as you can, and keep moving on." (Ulysses S. Grant).

The reality is that terrorism and drug trafficking are the major threats we face, not the traditional organized and large scale armies. Today's battlefield is largely asymmetric and remote. We respond to these threats now by employing Marine Expeditionary Units (MEU) or SOF units, but what about operations that require more forces or sustained operations in order to eliminate an entrenched and tenacious enemy force? What about being able to conduct concurrent and/or simultaneous operations?

The conventional Army brings unique and relatively untapped capabilities and resources to the strategic planner's table, giving the planner a potent force multiplier to help deal with arising contingencies. However, the first question that we must address is how to get this force multiplier there. We must also change the predominant thinking among the services that the use of strategic airlift will provide the answer to our transport problems. It is just not there in the quantity to do the job. In addition, it ignores the problem of insufficient adequate airfields and the requirement to protect any seized airfields (if they exist at all) in the region. These sentiments are not limited to the U.S. Army. During a recent briefing to a British Royal Navy admiral, he said he was surprised to hear that a U.S. Army officer was speaking and paying at

least some attention to ships. The admiral said his British Army Aviation brethren have a predominant attitude and mindset that implies they don't care how they get to the fight, but when they do, they will kick butt!

Each Dept of Defense (DoD) component contributes certain expertise and capabilities to the fight if they can get there in a timely fashion. The Marines are the undisputed masters of amphibious warfare. They have task organized amphibious units (similar to DRB) designed to accomplish a myriad of tasks, some tasks very similar to those Army units from far, that are deployed on Navy ships during emergent contingency operations. They are provided amphibious ships by the Navy that have been designed to provide the command and control and support a landing force needs (beans to bullets). Nevertheless, what MEU commander would not eagerly accept the additional firepower of Army AH-64 Apache helicopters or additional lift capabilities that Army CH-47 Chinook helicopters could bring to the task force? What prudent JTF commander would not want to leverage and employ the force multiplying capabilities of Army forces in the area of operation to accomplish the mission? Right now we talk about these things, we have even done these things with varying degrees of success: Panama, Haiti, Somalia, Grenada, the Persian Gulf, but the potential for synergy is still virtually untapped.

What are the showstoppers now? Primarily it is a situation where we don't know what we don't know, and this creates some indifference and an overstated estimate of our operational capabilities. The current world situation and threats to our interests preclude the luxury of having months or years to plan, stage, and execute contingency operations like we have enjoyed in the past. A force is only a credible political instrument/deterrent if retribution is swift (response within hours and days, not months) and decisive. To do this effectively, a core element of the unit must be trained and current in shipboard operations. Army units below the battalion-sized level are excited about developing new skills, learning how other services operate and breaking training monotony with new events that provide challenges and increased unit and mission capability. At battalion, regiment and brigade level, the commander's everyday operations are so consuming that he has no spare capacity to consider new things. This is further compounded

if real-world operations are added to this mix. It is no wonder then, that these commanders actively resist the additional burdens of trying to get members of their units shipboard qualified, even though they recognize the overall "goodness" and the tactical and strategic advantages. Brigade and battalion level commanders' need some off-loading and time allotted to train and qualify their units to be viable and relevant from the joint perspective.

How do you achieve joint relevance and develop requisite skills? Consider the most feasible way to introduce forces in theater and develop the skills to use it. Which is better, dismantling your Apache helicopters and stuffing two at a time in a cargo plane or flying your battalion onto a floating airfield equipped with maintenance facilities and command and control structures? In other words, employing an afloat staging base (ASB). To remain relevant we must train to develop the requisite skills and supplement this training by using available tools. The Joint Shipboard Helicopter Integration Process (JSHIP) has developed various planning, training, and procedural products for Army and Air Force aviation units that can lessen the time, aggravation, and learning curve a unit goes through when it needs to get shipboard qualified. Time and resources to train is necessary to capitalize on the tools available. In addition, full participation in available joint exercises will cement the skills, and the Joint Forces Command (JFCOM), as the "chief advocate for jointness," offers DoD components an opportunity to participate in joint exercises only limited by willingness, creativeness and capacity. JSHIP supported Millennium Challenge 2002 as part of our command and control and other interoperability tests aboard a large-deck amphibious assault ship this summer which included employing two Army AH-64D Apache helicopters.

In summary, to answer our country's need for rapid, decisive power projection for contingency operations, the conventional Army brings unique talents and capabilities to joint operations that can tip the balance to win. This synergy provides the mission flexibility "force multiplier" to meet and defeat the global asymmetric threats to our interests. Certain skills must be in place to exercise their talents, which include being able to safely operate from ships. The tools are in place and available to the warfighters. We only need to know of our need to use them.

Which is better, dismantling your Apache helicopters and stuffing two at a time in a cargo plane or flying your battalion onto a floating airfield equipped with maintenance facilities and command and control structures?

EFFECTIVE DECISION-MAKING PROCESSES FOR THE JOINT FORCE COMMANDER

by
MAJ Steven Ptak, USA
MAJ Charles R. Webster Jr., USA
CDR Tony W. Wilson, USN

Admiral Derkins smiled inwardly and thought to himself how far the staff had come.

The morning briefing for the current crises had just finished. The fusion of information technology and the decision focused command and control process was now paying dividends. The staff was now providing him the analysis necessary to make better decisions.

Yes, he thought, they had indeed turned the corner from just providing data to giving him the necessary information for him to make decisions.

This morning he had not only been told the locations of his Carrier battle group, but how much time it would take to respond to either of the potential flare upsand when he would need to make a decision in order for those forces to be in place should they be required. The typhoon in the area affected the routing of the battle group. His staff ensured in their ayalisis that this information was built into the timelines. His J2 had been able to give a prediction, from the current indicators, of when possible action might be taken and had factored this information into the decision point. Information was flowing within the organization from multiple sources but was being brought together into a cohesive whole through the use of decision points and Commanders Critical Information Requirements. It had been a good brief.

The next meeting had been shceduled for 36 hours when the indicators anticipated the decision having to be made. He was no longer fighting the past, but being drawn into fighting the future. There was now a process guiding the decisions he had to make, the commander's critical information requirements and the battle rhythm that created a synergy that before had been lacking.

In order to improve critical decision-making capabilities, Joint Doctrine must be changed to provide a standardized approach for the Joint Force Commander (JFC), identifying key decisions and the necessary framework of supporting the critical information required by the commander to make good, timely decisions.

The effectiveness of the leader is proportional to the effectiveness of the decisions the leader makes and the cascading impacts as decisions turn into action, both good and bad. Joint doctrine defines JFC as a "general term applied to a combatant commander, sub-unified commander, or joint task force commander authorized to exercise combatant command or operational control over a joint force."[1] The decision-making in question is for the JFC and applies to the strategic and operational levels. Since it is widely recognized that the United States Armed Forces will be used with coalition armed forces, the same processes apply, whether discussing U.S. only or multinational forces and staffs.

As the decisions facing Admiral Dirkins in the vignette show, the JFC cannot rely on haphazard information flow to make effective decisions. The JFC's time is precious. Information presented or pushed to the JFC must be worth the JFC's time to receive and digest the information. Joint doctrine, by putting together the information from several different publications, provides commander's critical information requirements (CCIR) as the information necessary to support the JFC's decision making.

Joint doctrine recognizes the importance of effective decision-making. Effective decision-making starts in the deliberate and crisis action planning process with well-defined decision points and corresponding CCIR. The definition of CCIR indicates that the JFC's information requirements should support the JFC's decision-making. Although referred to and implied throughout joint doctrine, the "process" of decision-making is not defined. There is no joint doctrine that addresses the process of defining decision points, correlating CCIRs to the decision points, and then breaking the CCIRs into subcategories that provide ownership within the JFC's staff and component organizations.

All commanders, Joint Task Force and JFC components come from service jobs. If the service doctrines followed by key subordinates and JFC "information providers" do not follow the same decision-making processes, there will be seams in the decision-making process leading

to poor quality information flowing to the JFC in support of the CCIR. A breakdown in the process eventually leads to ineffective decisions. It is important that service doctrines synchronize decision-making processes with joint doctrine. Following is a simple example to show why it is important for service doctrine processes to match joint doctrine processes: If each service used different service-defined processes to decide targeting priorities, they would be unable to effectively identify and prioritize the targets when working together as a joint force.

We must determine first what joint doctrine does provide to the JFC's decision-making process to analyze doctrine and provide solutions to provide Joint Force Commanders with decision-making tools not currently addressed by joint doctrine. A summary of terms and joint definitions that will be used throughout this analysis will be provided to ensure the same starting point. After definitions, the decision-making processes addressed in joint doctrine will be reviewed. Although it would be beneficial to provide the same detailed analysis of service doctrines, time and space dictate a summary of service policies with respect to decision-making processes and standardization with joint doctrine. Where gaps in definitions and joint processes are identified, solutions will be proposed. Key aspects of decision-making processes missing from the joint doctrine are standard definitions, including the key subcomponents of CCIR, linking decision points to CCIR, and how CCIR are "answered."

The following definitions are taken from the Department of Defense Dictionary of Military and Associated Terms[2]:

Commander's critical information requirements (CCIR) – A comprehensive list of information requirements identified by the commander as being critical in facilitating timely information management and the decision-making process that affect successful mission accomplishment. The two key subcomponents are critical friendly force information and priority intelligence requirements.

Critical information – Specific facts about friendly intentions, capabilities, and activities vitally needed by adversaries for them to plan and act effectively so as to guarantee failure or unacceptable consequences for friendly mission accomplishment.

Decision – In an estimate of the situation, a clear and concise statement of the line of action intended to be followed by the commander as the one most favorable to the successful accomplishment of the assigned mission.

Decision point (DP)– The point in space and time where the commander or staff anticipates making a decision concerning a specific friendly course of action. A decision point is usually associated with a specific target area of interest, and is located in time and space to permit the commander sufficient lead-time to engage the adversary in the target area of interest. Decision points may also be associated with friendly force and the status of ongoing operations.

Decision support template (DSP) – A graphic record of war gaming. The decision support template depicts decision points, timelines associated with movement of forces and the flow of the operation, and other key items of information required to execute a specific friendly course of action.

Essential elements of friendly information (EEFI) – Key questions likely to be asked by adversary officials and intelligence systems about specific friendly intentions, capabilities, and activities, so they can obtain answers critical to their operational effectiveness. Also called EEFI.

Joint force commander (JFC) – A general term applied to a combatant commander, sub unified commander, or joint task force commander authorized to exercise combatant command (command authority) or operational control over a joint force. Also called a JFC.

Priority intelligence requirements (PIR) – Those intelligence requirements for which a commander has an anticipated and stated priority in the task of planning and decision-making.

One of the two key subcomponents of CCIR is friendly force information.

However, there is no definition of friendly force information. The definition of critical information describes information needed by an adversary concerning friendly forces.

Additionally, *Joint Doctrine for Campaign Planning* does not define CCIR in the same manner. It states the two key sub-components of CCIR are "critical information and priority intelligence requirements."[3]

As can be seen from the definitions, critical information applies to information required by the adversary instead of the JFC, so the defini-

> **In order to improve critical decision-making capabilities, Joint Doctrine must be changed to provide a standardized approach for the Joint Force Commander.**

	Joint	Army[12]	Marine Corps[13]	Air Force[14]	Navy[15]
Establish relationship: **CCIRs to decision making**	Yes	Yes	Yes	* No	† No
PIRs to CCIRs	Yes	Yes	Yes	No	No
FFIRs to CCIRs	** Yes	Yes	Yes	No	No
EEFIs to CCIRs	†† No	Yes	Yes	No	No
Describe process to derive: **- Decision points supporting decision making**	Yes	Yes	Yes	No	No
- CCIRs to support decision points	No	No	No	No	No

* Referred to as Information Superiority – mainly related to information operations and information warfare.

† Referred to as Knowledge Management.

** Joint doctrine describes Critical Friendly Information Requirements as one of two key sub-components, but does not provide a definition, so the commonly accepted definition of Friendly Force Information Requirements is used/compared.

†† Joint doctrine does not relate Essential Elements of Friendly Information (EEFI) to CCIR.

tion of CCIR must be standard throughout joint doctrine. Since decision points may be associated with friendly forces and the status of on-going operations, friendly force information must be defined as follows: Information about friendly forces required by the commander in support of decision-making processes.

The definition of CCIR mentions the decision-making process, but nowhere in the joint publications is the process of decision-making described. In fact, the decision-making process should begin while identifying decision points during crisis action planning or deliberate planning. Information required by the commander to make sound decisions must be identified in conjunction with identifying decision points. The last part of the process should be the flow of information to the commander during execution of the plan to support the anticipated decisions that the commander must make. Once the decision is made, the process starts from the beginning with a review of upcoming decisions and changing or modifying CCIR as required supporting new or modified decision points.

The Joint Capstone Publication 0-2, *Unified Action Armed Forces (UNAAF)*, provides the fundamental doctrine and policy for all other Joint Publications (Joint Pub).[4] UNAAF describes the importance of identifying critical decision points to the commander and the CCIR to filter the amount of information flowing to the commander.

Joint Pub 3-0, *Doctrine for Joint Operations*, defines CCIRs and describes the two key subcomponents as Critical Friendly Force Information and Priority Intelligence Requirements.[5]

Joint Pub 5-0, *Doctrine for Planning Joint Operations*, states the benefit to decision making during a crisis provided by the detailed analysis and coordination allowed during deliberate planning during peacetime.[6]

Joint Pub 5-00.1, *Joint Doctrine for Campaign Planning*, more clearly relates the identification of decision points with branches and sequels in the operational art of campaign planning.[7]

Specifically, in the planning step of commander's estimate, potential decision points and recommended CCIR are provided as a result of analysis of the proposed courses of action.[8] What the Joint Doctrine for Campaign Planning does not describe is a process to derive the decision points and related CCIR in a standard, logical manner. Nor does it describe how to incorporate the decision support template into the decision making process.

In the executive summary, the *UNAAF* says,[9] JFCs are provided staffs to assist them in the decision-making and execution process. The staff is an extension of the commander; its sole function is command support, and its only au-

thority is that which is delegated to it by the commander … It is essential for the JFC to ensure that subordinate commanders, staff principals, and leaders of C2 nodes understand their authorities, their role in decision-making and controlling, and their relationship with others. Control of information is a prerequisite to maintaining C2 of a joint operation. Identifying, requesting, receiving, tracking, and disseminating the needed information ensures that decision makers make informed, timely decisions… The JFC can get inside adversary's decision and execution cycle by making more timely decisions. Doing so generates adversary confusion and disorder and slows opponent decision-making. The commander who can gather information and make decisions faster and better will generate a quicker tempo of operations and gain a decided military advantage.

The importance of information flow to support the JFC's, and by extension, the JFC's staff, decision-making process is made even more clear when the UNAAF describes the requirement for an information management plan to address the processes of disseminating CCIR, to address the information flow, filtering, fusing, protecting, and prioritizing, and to address common operation picture criteria.[10]

There is no joint doctrine that addresses an information management plan, but there is a multi-Service tactics, techniques and procedures publication addressing information management.[11]

After analyzing the current joint doctrine for the decision-making process, there is a clear lack of information on how to accomplish the process. The joint publications discuss the elements of the process but do not interlink them into a cohesive whole.

Because all JFCs and staffs come from service backgrounds, it is useful to analyze service doctrines with respect to standard decision-making processes. There is not sufficient room to discuss the details of each service's doctrine, but Table 1-1 captures the key points of the service doctrines.

Neither joint nor service doctrines clearly address the processes to capture critical information requirements supporting decision-making for the commander. The joint and service doctrines do not have similar definitions of the information requirements and their relationships to each other and decision-making. However, both the Army and Marines do have a similar process and similar definitions for decision points and CCIR. Much could be accomplished by adopting Army and Marine doctrine definitions and processes into joint doctrine.

Why is this Important?

Decision-making is critical for the commander in order to accomplish the mission. The decision-making process must therefore afford the commander the opportunity to receive the information necessary for him to make timely decisions in the prosecution of the mission. Without a well-understood process, the staff will be unable to provide the right information at the right time for the commander to make the right decision. The key then becomes to not only provide an efficient and well understood process for the staff, but to manage the process to identify and make available CCIR inputs in time for the commander to make decisions and act upon the information provided by the staff.

In order to manage the process, the staff must be focused on the information requirements established by the commander to make decisions. The JFC staff must be able to provide timely analysis of the information that is provided in response to CCIR. Value is added to the information as the JFC staff turns mere data into actionable knowledge for the decision maker.

Information management is simplified by using CCIR to provide a way of taking incoming information, filtering it against a set of requirements, and applying what remains against those requirements. JFC staff efficiencies are gained by establishing an Office of Primary Responsibility (OPR) for each CCIR. Addressing an OPR in the process provides a centralized point of contact on the JFC staff for working the analysis of the information.

Consistent joint doctrine, as well as the importance of a well-articulated and understood process, is essential for commanders and their staffs to reach timely decisions. The key is to understand what must be done to change current joint doctrine so that CJTFs can form a joint staff using common, understood procedures to gain the necessary information and knowledge to make sound decisions. Thus, our recommendation to joint doctrine are as follows:

·Establish a simple and clear process consistent throughout joint doctrine.

·Establish simple and clear definitions con-

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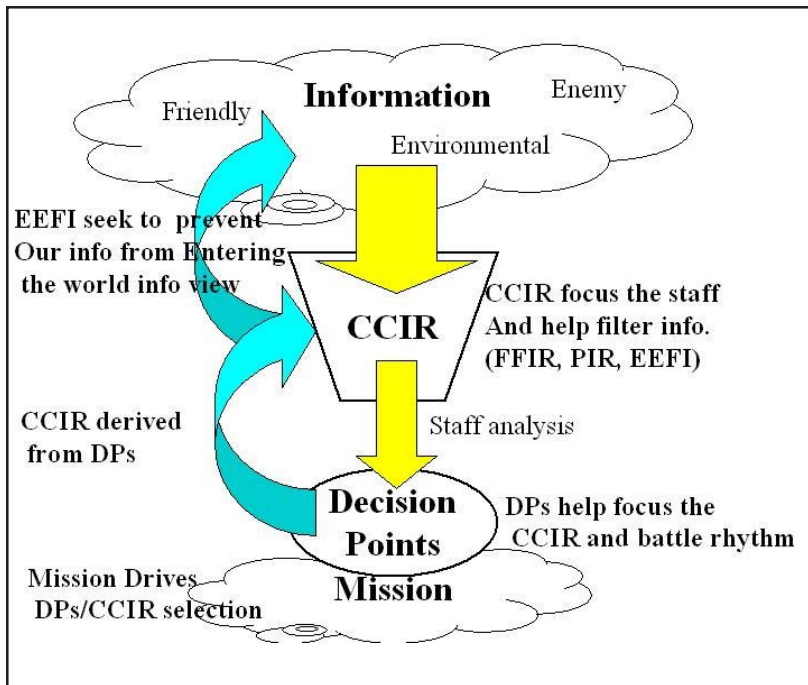
This graphic represents an effective decision-making process.

sistent throughout joint doctrine.

The following establishes a clear decision making process for the JFC's staff to follow: The commander, using wargaming techniques and the decision support matrix (DSM) or decision support template (DST), identifies the decision point (DP) necessary for mission accomplishment and for execution of potential branches and sequels. Once these DPs are identified, the Commander then determines the applicable CCIR for each DP. DPs are then reached and decisions made when the commander feels that the CCIR justify the need to make the decision. The process is based upon immediate commander notification when significant CCIR related information comes in, or when CCIR in combination establish the need to make a decision.

The commander utilizes CCIR to establish the priorities for information gathering and reporting. CCIR are a prioritized list of information requirements approved by the commander as critical for decision-making, and are linked to the commander's DPs. They should identify opportunities and vulnerabilities that assist the commander in advising his/her higher headquarters and in supporting the JTF (See Fig 1 below). CCIR are a tool for the commander to reduce information gaps generated by uncertainties that the commander may have concerning his own force, the threat or the environment. Once updated, CCIR enable the commander to better understand the flow of the operation, identify risks, and make timely decisions to ful-

fill his intent, retain the initiative, and accomplish the mission. They aid the commander by reducing information requirements to a manageable set. More importantly, they focus the staff on the exact type and form of information the commander requires. CCIR will change as situations change and decisions are made. CCIR require continuous assessment for relevance to current and developing situations.

Instead of reacting to the threat, commanders are able to maintain tempo by controlling the flow of information necessary to attain understanding of the battlespace. As events unfold, new decisions will be necessary which thereby drive changes in the CCIR. This constant state of change requires continual assessment of CCIR for relevance to current and future situations. The commander approves CCIR, but the staff recommends and manages them to assist the commander. They are updated as required by the IM plan and are tracked by the staff.

The following are recommended changes to the definitions of terms for joint doctrine:

Decision Points - Decisions that the commander anticipates he may have to make during a given operation. The DPs are further defined by type. The two types of DPs are situational and standing.

Situational. DPs that develop and change as the situation adjusts and objectives are met. Situational DPs are frequently modified or deleted as decisions are made on branches and sequels. An example of a situational DP would be the execution of the next phase of an operation.

Standing. DPs that support the entire operation as a whole and are applicable for the length of its duration. An example of a standing DP would be the decision point associated with a change to the information condition level.

CCIR are broken down into the three categories and the three types listed in the next two paragraphs below. A CCIR is always one of the three types listed, it is not a stand-alone entity.

CCIR Categories

Enemy or Threat. Critical items of information required by a particular time that relates with other available information and intelligence, to assist in assessing and understanding the enemy or threat situation.

This category involves indications and warnings (I&W) of the threat intent and/or actions by the enemy or threat. Examples include information regarding troop movements, changes in opposing force intent or policies.

Friendly. Information the commander needs pertaining to his assigned forces to make timely and appropriate decisions. This category includes such information as force closure, critical supply levels, and levels of combat effectiveness.

Environment. This category includes, but is not limited to, economic, political, meteorological and infrastructure information. Examples of information are meteorological conditions, condition of the supporting infrastructure and changes in national policy by the participating nations or neutral governments and/or forces, and relevant activities of non-governmental and private organizations.

CCIR types:

Priority Intelligence Requirements (PIR). Those intelligence requirements about the enemy and environment for which a commander has an anticipated and stated priority in his task of planning and decision-making. They are often associated with a decision that will critically affect the overall success of the command's mission.

Friendly Force Information Requirements (FFIRs). Information the commander needs about friendly forces in order to develop plans and make effective decisions. Depending upon the circumstances, information on unit location, composition, readiness, personnel status and logistics status could become a friendly information requirement.

Essential Elements of Friendly Information (EEFI). Key questions likely to be asked by adversary officials and intelligence systems about specific friendly intentions, capabilities and activities, so they can obtain answers critical to their operational effectiveness.

The terms "CCIR" and "PIR" are not interchangeable. PIRs support those DPs that require information related to the enemy and environment and are the highest order of intelligence requirements. While a PIR may be included in CCIR, not all CCIR are PIR.

For CJTFs to improve the productivity and focus of the joint staff during mission execution it is imperative that we continue to promote improvement in the definition and utilization of the decision making process as it applies to decision focused C2.

If for no other reason than commanders are in the business of making decisions that will affect the lives of the men that serve under them. It is for this reason the joint doctrine for decision-making must become more refined and better defined. Adoptions of the recommendations made are critical for the pursuit of better decision-making at the JTF level.

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IMPROVING THE GLOBAL COMMAND AND CONTROL, COMMAND OPERATIONAL PICTURE SYSTEMS TO BETTER SUPPORT THE JOINT FORCE COMMANDER

by
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"Separate air, ground, and sea warfare is gone forever. If ever again we should be involved in war, we will fight it in all elements with all services, as one single concentrated effort." said Dwight David Eisenhower.

The Global Command and Control System (GCCS) Common Operational Picture (COP) capability has been available to joint force commanders (JFCs) since 1996. Although technically capable of displaying a multitude of inputs for the purposes of portraying graphical situation awareness of the JFCs battlespace, COP has not transitioned into a baseline capability. This paper attempts to address the reasons why COP has not transitioned to become the standard application to provide situational awareness for JFCs. COP, as well as any other software application fielded to warfighters, must be treated as a system, not a stand-alone application, and must address the full DOTLMPF (Doctrine, Organization, Training, Logistics, Material, Personnel, Facilities) spectrum. This paper begins by describing GCCS COP and its capabilities. Then, this paper will highlight COP issues based upon lessons learned from past joint exercises. Next, this paper will describe current efforts at the US European Command in order to illustrate COP's potential. Finally, this paper will describe an approach to affect COP's transition to a baseline, warfighting capability.

What is Common Operational Picture?

The Global Command and Control System (GCCS) is a collection of software programs and a network of computers that provides the joint warfighter with tools to accomplish a variety of required command and control tasks. The Common Operational Picture (COP) is one of many software modules available on GCCS.

"The COP is a graphical display of friendly, hostile, and neutral units, assets, overlays, and/ or tracks pertinent to operations and is a key tool for commanders in planning and conducting joint operations. The GCCS COP may include relevant information from the tactical to the strategic level of command."[1]

"Each [Combatant Commander] will maintain current information on all force locations and tracks available. From this data set, each commander will provide a COP, available to the National Military Command and Control Center (NMCC)."[2]

The COP does not actually generate the situational picture; rather it combines and displays information that is available from a variety of other systems to provide one fused picture of deployed forces. The COP can also be updated automatically by live feeds or by manual operator input.

At present, the COP automatically receives inputs from both tactical networks and service C4I systems. Examples of tactical networks include: Link 11 (aka Tactical Digital Information Link – A, TADIL A), Link 16 (aka Joint Tactical Information Data Link, JTIDS), and Tactical Intelligence Broadcast System (TIBS). Service GCCS compatible variants also provide data that can be displayed in the COP. These systems include a maritime component, GCCS – Maritime; an aerospace component, Air Defense Systems Integrator (ADSI); and a ground component, GCCS-Army. Together, tactical networks and tactical systems provide the positional information on participating friendly air, land and sea, including missile defense forces as well as any available surveillance information on enemy position.

COP Lesson's Learned

One of the best sources of documenting COP lessons learned have been captured in the Unclassified, Joint Unified Lessons Learned System (JULLS). COP issues in JULLS include: lack of a standardized CONOPS, lack of training for operators; and the lack of GCCS systems available during major joint exercises.

"The GCCS requires standard protocols and procedures for using all of its component communication programs."[3] The recommended action for this report was, "JCS direct the establishment of standard procedures and protocols for using GCCS during JTF operations."[4] Without these standard

procedures the report goes on to say, "Without standard procedures commands will adopt a variety of different methods of using GCCS…."[5]

A similar experience from Exercise POSITIVE FORCE 96 states, "most functional and technical users were not trained or proficient in the use of GCCS communication software. Tested procedures were not available."[6] The recommended action from this report was to "Use the real-world C2 systems for major CJCS sponsored Command Post Exercises."[7]

The same problem was encountered in FUERTES DEFENSES (FD) 98/99 which states, "...there is a requirement for trained computer systems operators and system administrators."[8] Further the FD 98/99 report states, "...not all GCCS computer terminals were manned by fully trained operators. Since many of these GCCS operators were augmentees, pre-exercise training was not conducted and the exercise became an on-the-job training experience with mixed results."[9] The FUERTES DEFENSES report makes a recommendation that touches on an organizational issue with respect to GCCS use and states, "The Joint Manning Document should identify specific operator skill sets for specific computer system positions…."[10]

Exercise UNIFIED ENDEAVOR 96-2 observed, "Users were not able to operate GCCS terminals effectively."[11] The recommendations resulting from UNIFIED ENDEAVOR 96-2 include: "Services must field terminals in sufficient numbers and at the proper levels for use at the JTF level. Services must invest time away from normal tasks and fund to train selected operators and subject matter experts before the exercise/contingency. The training focus should be guided by an approved Joint Task Force GCCS CONOPS."[12] JTFEX 98-1 experiences reinforce the training issue with its recommendation, "A formal GCCS training program should be established for system administrators, operators, and key JTF staff members. The training should be required prior to or upon arrival at a JTF assignment."[13]

The above examples highlight that the operational community is having difficulty using GCCS and the COP. This application has been available since 1996, why is it not used - how can this be? The fundamental thesis of this paper states that COP, or any other application, should be treated as a system – not an isolated C4I application. Whenever developers attempt to field *and transition* any capability into the force, *all the pertinent aspects of DOTLMPF* (Doctrine, Organization, Training, Logistics, Material, Personnel, Facilities) *must be addressed*.

To date, this has not been done with the GCCS COP. An organization must be designated to manage the DOTLMPF issues for newly developed GCCS applications and ensure that warfighter support requirements are met. Regional CINCs and JTFs have neither the time nor resources to address these concerns.

The COP is technically capable of providing Situational Awareness for a Joint Force Commander. However, in each case there are fundamental DOTLMPF issues that must be addressed in order for the COP to transition to something useful to the operational community.

EUCOM COP Use in 2001

During the past 8 months, the United States European Command (EUCOM) J3 and J6 have emphasized the operational use of the COP. The EUCOM approach has been two-fold, first begin to emphasize COP use during joint exercises and secondly, research why the COP is not being used by a standing Combined Joint Task Force – Operation NORTHERN WATCH.

EUCOM first emphasized using the COP during Exercise AGILE LION 01 (AL01), a CJCS directed, joint exercise focusing on the ability of the Southern European Task Force (SETAF) to establish a JTF headquarters and conduct a Non Combatant Evacuation Operation (NEO). The primary tool used to drive the exercise was a simulation - the Joint Theater Level Simulation System (JTLS), from the Joint Warfighting Center (JWFC). Prior to AL01, JTLS driven exercises were played using only JTLS as inputs into the simulation and the SETAF based, JTF headquarters was using a traditional situation map for situational awareness. During AL01, EUCOM began to break this paradigm by inserting an actual C4I system between exercise participants and the simulation. SETAF, the Army Forces (ARFOR) for AL01, used Command and Control PC (C2PC) software to inject the Army ground and ground-threat entities into the exercise COP for AL01. The AL01 COP picture synthesized the JTLS simulation data, which provided all of the exercise simulation data except the ground blue

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and red pictures, and the information provided by SETAF operators using C2PC. Because the COP was comprehensive and provided the most up-to-date information to depict joint "picture," the COP quickly became the tool of choice for situational awareness within the Joint Operations Center during AL01. Prior to AL01, EUCOM was completely dependent upon the JTLS system for joint exercises. After AL01, JTLS is but one component of the exercise COP. During AL01, the J2 input threat ground data into the COP using C2PC and the J3 used C2PC to input the Army ground portion of the AL01 COP.

EUCOM has also emphasized COP use at Operation NORTHERN WATCH (ONW). Prior to March 01, the ADSI display provided situational awareness for ONW, however the display lacked a complete picture of enemy ground units. Beginning in March 01, ONW C2 personnel began to use C2PC to inject the locations of threat ground units into the ONW COP. This combination of the ground threat data, entered via C2PC, and the integration of the data feeds for the ADSI, provided an improved level of situational awareness for ONW. While the ADSI is capable of integrating tactical data link and national level electronic intelligence, it does not provide the display capabilities offered in the COP module which is able to display ballistic missile warning data, improved map functionalities, and the ability to display national level imagery against a map background.

EUCOM's recent experiences at ONW and AL01 serve to demonstrate simply that the COP is capable of establishing a fundamental level of situational awareness in support of a Joint Force Commander. Lessons learned from those two experiences have reinforced experiences from past exercises and have highlighted the need for to have some organization address full DOTLMPF spectrum issues for the COP. In order to facilitate the transition of the COP into a true operational capability, this paper recommends that JFCOM and DISA address the following relevant DOTLMPF issues with regard to the GCCS Common Operational Picture.

RECOMMENDATIONS
DOTLMPF COP Issues

There exists no joint doctrine for establishing and maintaining the COP. Each CINC has developed a theater-specific COP CONOPS.

JFCOM should produce a standardized COP CONOPS to satisfy the needs of all combatant commanders. This COP CONOPS should further address how a generic CJTF headquarters can establish and maintain the CJTF COP. This CONOPS should address the coalition aspects of COP; include an objective architecture for addressing the security concerns with respect to establishing a coalition COP; provide tactics, techniques and procedures that address the foreign disclosure aspects of a coalition operation; and lastly define service component roles and responsibilities in establishing the CJTF COP. As the COP matures, the concept of a "Global COP" arises and CINCs have the need to share COP data with other CINCs. Standardized procedures and training will provide the necessary basis to accomplish this goal. Additionally, the CONOPS should go up one more level and address the formation of a global COP as well as the rules for sharing COP data among CINCs and other potential COP users in CONUS.

Aside from the introduction of formal doctrine in order to establish and maintain a COP, there are two key issues that must be resolved in order for the COP to truly represent the battlespace - friendly ground unit locations and intelligence information. A COP at any level in incomplete without friendly ground unit locations and intelligence information. Friendly ground unit locations can be entered manually today, while this is not the optimal solution it must suffice until there is a standardized way to automate the input of friendly unit locations into the COP. There is a requirement to track the locations of major ground elements to the level two echelons below that of the JTF headquarters for mid-to-high intensity level conflicts and the locations of individual vehicles for Operations Other Than War.

Today's COP has no finished intelligence products (the intelligence community simply does not inject them into the system) included to assist the JTF Commander in their decision-making. "Using the Global Command and Control System (GCCS), the JTF Commander launches the common operational picture (COP) to get a near-real-time look at the situation, topology, weather conditions, location and type of forces, and armaments. The JTF Commander's ability to execute is hampered. Even though he is using GCCS [COP], his situational awareness could be significantly

enhanced with improved information on each faction's intent and capabilities. He knows that he would get a clearer picture if his C2 was coupled with solid intelligence. Does he have this yet? No."[14] Although this capability doesn't yet exist as an integrated part of the COP, there are initiatives underway to include them. "Recently, both DIA and NIMA have started initiatives to produce and distribute intelligence in a form that is directly accessible by C2 users using GCCS-I3 (Integrated Imagery and Intelligence). Intelligence production at DIA and at delegated producer sites such as the Joint Intelligence Centers (JICs) and Joint Analysis Centers (JACs) is typically done at the sensitive compartmented intelligence (SCI) level. These functions use DIA-provided Modernized Intelligence Database (MIDB) systems to produce the national General Military Intelligence (GMI) picture. The C2 user primarily works on Secret-level systems and needs intelligence data usable at the Secret level. In support of this need, DIA will establish and maintain a Secret-level MIDB to support GCCS-I3 and to improve the ability to export intelligence from their all-source SCI systems to the Secret level. This is a significant step forward in getting more direct support from intelligence producers to C2 users."[15]

The future environment in which military forces will operate is that of the multinational coalition or alliance. In a statement to Congress, Lieutenant General John L. Woodward said:

The Multinational war fighting and peacekeeping environment in which the military operates today requires an ability to be able to "connect" with allied and coalition partners in order to operate effectively. The need for a Coalition-wide WAN (Wide Area Network) has been validated over and over again in recent operations involving our multi-national partners. Security technology, information releasability and other policy matters are key to making this a reality. We must continue developing technology to reduce the manual burden of information releasability and secure connectivity while also working the policy issues to ensure we can share information within an international scenario. When working with coalition partners, we must accommodate multi-national technologies, many of which are developed outside of the U.S. Our challenge is to ensure interoperability of these different but similar capabilities to ensure success with our

coalition partners.[16]

Organization

Currently the Joint Force Commander (JFC) is forced to man COP operator positions out of hide and there currently exists no dedicated organizational element, to establish and maintain a COP at the national, theater or JTF level. No staff at any level today has personnel identified by duty position on personnel authorization documentation to establish and maintain the COP.

Producing and maintaining a COP requires personnel. In its early days, automation was sold under the premise that it could help us do more with less. At the JTF level, it is critical to understand that automated systems require dedicated operational personnel in order to operate them – hence the early recommendation that we should treat COP as a system. The technical community has successfully made the case that automated systems require additional systems administration and help desk personnel. Based upon EUCOM's ONW and AL01 experiences, there are initial figures available for establishing the COP at the JTF level. EUCOM has identified a minimum of seven dedicated personnel required to establish and maintain the Common Tactical Picture 24x7 at the JTF level. The AL01 experience called for the COP cell to consist of: a dedicated COP manager to coordinate the data feeds and monitor COP production, two personnel in the J2, two in the J3, and two in the J6 for 24 hour technical support. Additional COP positions may be required at each component. JFCOM needs to identify personnel requirements for establishing and maintaining the COP at the national, theater, and joint task force levels.

Training

Training is one of the most significant issues with respect to implementing the COP. Unfortunately, the COP is a system that is not used in training or routinely used at the service component much less the joint staff level. While each service has a unique system for generating a service-specific picture, service systems generally do not discuss how to create a joint picture in support of a joint force commander. Training, therefore, must be instituted at all levels to make an impact.

Other CINCs may want to follow EUCOM's lead in incorporating the use of COP into future joint exercises. Each component responsible for establishing a JTF headquarters must

There exists no joint doctrine for establishing and maintaining the COP. Each CINC has developed a theater-specific COP CONOPS. JFCOM should produce a standardized COP CONOPS to satisfy the needs of all combatant commanders.

experience first-hand what it takes to establish and maintain a COP. Only then will a JTF be able to produce a COP when it needs to.

Material

The GCCS COP application is a UNIX based application that requires a high-powered, UNIX workstation. Most joint force commanders operate in a Microsoft environment. COP needs to have an NT version because of user familiarity, which will lead to less training. The key to COP success in EUCOM has been the C2PC application. C2PC runs in the NT environment and can be loaded as another application on Microsoft enabled workstations. C2PC "bridged the gap" during AGILE LION 01 and at Operation NORTHERN WATCH between the NT environment where operators do the majority of their work and the UNIX environment for the COP server. DISA is currently developing GCCS 4.0 will include the addition of a native GCCS NT client. "GCCS 4.0 will include the addition of NT servers. The NT servers will be used for deployable database servers."[17]

Conclusion

The DOTLMPF issues discussed previously are key to establishing a fundamental level of situational awareness for the joint force commander. In order for new technology to transition from the laboratory into a true warfighting capability, all of the pertinent DOTLMPF issues must be addressed beforehand. CINCS lack the staff and resources to figure out how the applications work, figure out how to integrate the new capabilities into their theater architectures, and then write the doctrine for its use in their theater. CINCs require external support for these endeavors. JFCOM in its role as the joint force integrator must assume this role of assisting CINCs with the integration of new technology. If they do not assume the role, the CINCs will be left to integrate new technology on their own and will lose the effect of synergy through standardization. Once the COP has the required resources to transition into a true warfighter capability, then we can proceed to the next logical step of building battlespace dominance tools into the COP. The tendency is to assume the COP works and build higher-level tools that simply will not work because the proper foundation is not there.

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2 CJCSI 3151.01, page A-6, paragraph 3.
3 JULLS number 0261-76366
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6 JULLS number 31757-25510
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FIRES AND MANEUVER - CHALLENGES ON THE NONCONTIGUOUS BATTLEFIELD

by
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LTC Robert Green, USA
MAJ Eric Braganca, USA

Special Operations Forces (SOF) and joint air power achieved spectacular results during Operation Enduring Freedom (OEF) in Afghanistan – particularly in those first few months when the eyes of America and the world were watching. The initiative, courage, and strength of character of the American Fighting men and women showed bright – we are all in debt to them.

We decided to investigate the integration of air power with special operations on the ground to gain insights on the challenges our forces faced in these chaotic first months and how our front line commanders worked together to overcome them. Our hats are off to their calmness under pressure, their professionalism, their selfless leadership, and their one team, one fight mentality. And, because we know the SOF side well, a big salute to RADM Bert Calland, Army Colonel John Mulholland, Navy Captain Bob Harward, and Air Force Colonel Frank Kisner, for their leadership of those great special operations soldiers, sailors, and airmen. Also, a HOOAH to the air power side, to those who planned and controlled the air operations, and to those who flew the missions.

This integration of air power with special operations has significant doctrine, organizational, and training implications. As the joint SOF trainer, Special Operations Forces Joint Training Teams (SOF JTTs) from SOCJFCOM assisted the joint special operations commanders in OEF by sharing current insights, practices, and knowledge of the best techniques and procedures by which to employ SOF. While overall successful, we believe we could have better proactively focused on and assisted in improving air-ground fires integration. Integration of air power and special operations isn't new – in fact SOF and the joint air community are very adept at close integration – and the men on the ground did a great job working with the air support. But at the operational level of war, integration on a noncontiguous battlefield with large indigenous maneuver forces was a new challenge for us and, to a certain extent, the operators. We were seeing a different paradigm from the traditional one of airpower in support of large maneuvering corps and division elements on a linear battlefield. We all learned and adapted. And after the fact, both the operators and we have further thought about the challenges and solutions of fires integration in noncontiguous operations. This paper addresses those thoughts.

The SOF Joint Training Teams dedicate this paper to the special operators and the airmen who won the day. We have learned much from OEF, and hope that these insights, while too late for the operations back in 2001, are thought provoking and of assistance to others in future operations.

We appreciate the support many gave us in the writing of this paper, in particular USAF Col Larry Stutzriem (ACC/XP), USA COL John Mulholland (5th SFG), USAF Col Bob Holmes (SOCOM), USAF Col Frank Kisner (16th SOW), USAF Col Mike Longoria (18 ASOG), USA COL (ret) Don Richardson, USA LTC Wes Rehorn, and Lt Col (ret) Rick Newton (JSOU).

To stay on focus, we consciously omitted detailed discussion of the SOF task organization, and did not address the multiple SOF Hqs' impact on CFACC coordination nor ARCENT's role as the CFLCC. We alone bear sole responsibility for the paper's facts, analysis, and recommendations.

In Afghanistan during Operation Enduring Freedom (OEF), U.S. forces experienced a fully noncontiguous battlefield and discovered numerous challenges in coordinating fires and maneuver absent the traditional boundary lines demarcating land areas of operation. We will discuss the challenges, the why and how commanders overcame these challenges, and offer insights for even further improvement. We purposely follow discussion of each challenge with the 'field' solution; this in many cases takes away a 'smoking gun' analysis and could result in the reader questioning whether there is an issue or challenge. We contend these are key future challenges, and offer insights at the end of the paper to potential solutions. Lastly, while we provide a special operations perspective on these challenges and insights, many have value

Fires and Fire Support in the Traditional Linear Battlefield
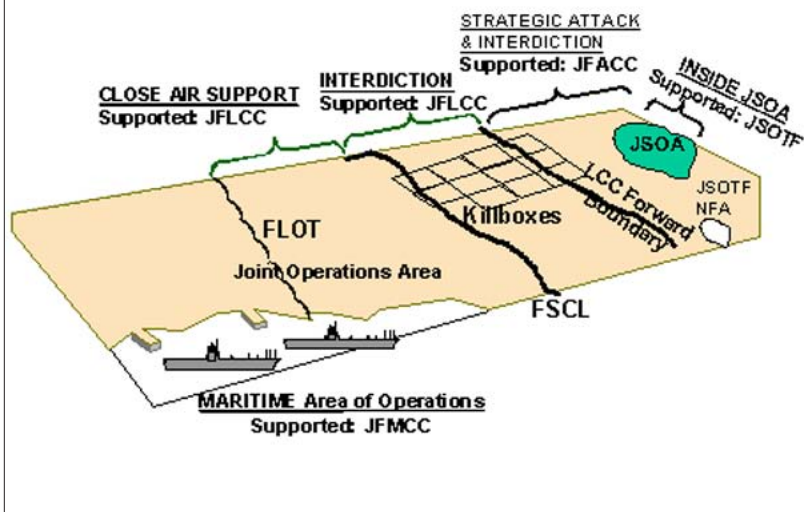
The contiguous battlefield was nonexistent in Afghanistan during Operation Enduring Freedom (OEF). U.S. forces experienced a fully noncontiguous battlefield and discovered numerous challenges in coordinating fires and maneuver absent the traditional boundary lines demarcating land areas of operation.

to future conventional force operations on noncontiguous battlefields.

We address challenges in battlespace geometry, command relationships, air apportionment, and fire support processes for noncontiguous environments. We then shares insights on recommended increased use of small 'gridded' areas of operation in conjunction with overlaid 'kill boxes,' value of the "ground-directed interdiction" (GDI) initiatives, greater special operations forces (SOF) leverage of joint targeting processes, continuous blue force tracking, and more robust and better trained fire support organizations for SOF. Increased use of delineated areas of operation and killbox management techniques will better clarify fires and fire support responsibilities. Increased SOF understanding and participation in the targeting process will result in better input into the apportionment process, more timely target nominations and more responsive fire support. This will enable SOF to take full advantage of all of the effects that joint fires can bring to the fight by better leveraging planned interdiction and strategic attack, rather than primarily relying on close air support. We also support more investigation of the "ground-directed interdiction" (GDI) concept in which the ground force identifies targets and directs interdiction fires. Lastly, this paper concurs with current emerging thoughts on developing an improved air support organization for special operations headquarters (much like the Air Support Operations Center [ASOC] in the corps headquarters) to better facilitate actual

execution of fire support for special operations.

Many in SOF and the Air Force have focused on specific technical and tactical training-related challenges for the actual request and control of close air support. While these may offer some improvements, we believe that harnessing the power of existing command and control tools offers the best opportunity for integration.

Challenges and 'Field' Solutions

Battlespace geometry and command relationships.

Challenge: Through the first months of OEF, there was minimal establishment of any subordinate (to CENTCOM) joint operations areas (JOA) or ground areas of operations (AO) in Afghanistan. The CENTCOM Commander did not initially assign the landmass of Afghanistan to the Theater Special Operations Command (SOC), a joint task force commander, or a ground commander as none were readily capable of performing all of the functions inherent in owning this large area (i.e. the targeting, enemy situational awareness, fires clearance, etc.). He instead retained it as part of the CENTCOM Area of Responsibility (AOR). Even later in the campaign, when he assigned the land mass to the Combined Force Land Component Commander (CFLCC), and subsequently to the 'de facto' forward land component, 10th Mountain Division, one could argue that the CFLCC was not capable of performing all of the functions of owning an AO. Nor was the special operations component manned or trained to control such a large area. Neither organization had the command and control capability, or the forces, to monitor and control such a large area. It was only with the activation of CJTF-180, a joint task force formed around the XVIII Airborne Corps headquarters, that a subordinate joint command was able to monitor and control the Afghanistan AO – designated as a Coalition JOA (CJOA).

This initial absence of land boundaries, and the significant and widespread maneuver of SOF and Northern Alliance forces (and later, of conventional ground forces) in noncontiguous operations throughout Afghanistan brought out some key challenges in traditional thinking of fires and fire support vis-à-vis maneuver.

Traditionally, ground maneuver occurs in the ground commander's area of operations. Operational design has always included two

fundamental components - a mission and a designated area of operations (battlespace geometry) in which to accomplish that mission. This battlespace geometry is very important, especially to set the structure by which the joint force air component commander (JFACC) and the ground commander coordinate their operations to gain synergy. Numerous doctrinal publications lay out the relationship between these two commanders – Joint Publications 3-0 and 3-09 are two key documents. These publications direct "the land and naval force commanders are the supported commanders within the areas of operations designated by the joint force commander (JFC). Within their designated AOs, land and naval force commanders synchronize maneuver, fires, and interdiction. To facilitate this synchronization, such commanders have the authority to designate the target priority, effects, and timing of fires within their AOs [emphasis added]." These publications also address the JFACC's normal authority and responsibilities outside of ground areas of operation and joint special operations areas (JSOAs) as the supported commander for interdiction and strategic attack.

During the first months of operations in Afghanistan, there was very little battlespace geometry, no designated JSOAs or ground AOs, only the use of fire support coordinating measures (FSCMs) such as no-fire-areas (NFAs), restricted-fire-areas (RFAs), and later killboxes. By definition an FSCM is not a 'control' measure; it is a coordinating measure for expediting or restricting fires support. Thus, one could argue that the Combined Force Air Component Commander (CFACC) was the supported commander throughout Afghanistan based on no established ground area of operation or joint special operations area. The CFACC was indeed responsible for conducting interdiction and strategic attack throughout Afghanistan, and very likely (especially early in the war) viewed SOF (and the Northern Alliance) as key 'sensors' on the ground supporting CFACC fires. This perception and use of SOF as an important human sensor has longstanding precedent; SOF and the Air Force have developed numerous tactics, techniques, and procedures to enhance these types of 'sensor-to-shooter' operations. However, in Afghanistan, the role for SOF was very different. SOF (with their Northern Alliance partners) was a maneuver force requiring joint

fire support, just like any other friendly conventional ground force. Thus a key challenge was, absent a designated area of operations, how fires and fire support would support SOF as a maneuver force.

In the fall of 2001, many saw JSOTF-North as a 'de facto' ground commander conducting maneuver and requiring fire support. In fact, several documents specified the special operations component as the 'main' effort during some of the early phases. However, this designation as the 'main' effort speaks to priority, and is not a command relationship as is the designation as a 'supported commander.' The documents never directed when or where the JSOTF was the supported commander relative to other components of the joint force (specifically the CFACC). This had significant implications for the JSOTF's relationship with the CFACC. Additionally, despite being a 'de facto' ground commander, the JSOTF Commander may not have known the extent of his arguable authority to "designate the target priority, effects, and timing of fires" within his 'operational area.' And, bottom line – nothing in terms of orders or directives expressly granted that authority; JSOTF-North had neither a designated area of operations nor was it designated a 'supported commander.'

'Field' Solution: Fortunately, the commanders and their staff at the JSOTF and CFACC developed work-arounds to this lack of battlespace geometry and vague command relationships to develop target lists and prosecute targets. A system of kill boxes and fires clearance procedures minimized the potential for fratricide while providing agility and responsiveness. Additionally, the CFACC worked with the JSOTF to develop logical prioritized target lists, and allocated a large amount of airpower to directly support SOF on the ground. However, this was mostly all done informally; no clear battlespace geometry for SOF was established, the only significant change was establishment of a 'CJOA' and establishment of a CFLCC and later a JTF. But these did not solve the requirement for SOF controlled AOs and clear delineation of SOF as the supported commander prioritizing targets and designating required effects. This remains a key lesson learned; the Regional Combatant Command and Theater Special Operations Command (SOC) need to focus on ensuring clarity in command relationships and

During the first months of operations in Afghanistan, there was very little battlespace geometry, no designated JSOAs or ground AOs, only the use of fire support coordinating measures (FSCMs) such as no-fire-areas (NFAs), restricted-fire-areas (RFAs), and later killboxes.

battlespace geometry in future planning.

Air apportionment and fire support processes.

Challenge: Air apportionment in the first 10 days of OEF was focused on 'JOA-wide' interdiction and strategic attack against fixed targets. There was minimal initial apportionment of air to support SOF operations in either an interdiction or close air support role. This was probably due to several factors. First, was the largely air-centric focus and robust air control capabilities in CENTCOM over the past 10 years that had been developed for Operation Southern Watch. There was also a lack of precedent and experience in SOF being viewed as a maneuver force, and the lack of any battlespace geometry designating SOF as having an assigned ground area of operation (or JSOA) for reasons discussed earlier. Lastly, there was some doubt in SOF's ability to quickly take a decisive role in the ground fight with its Northern Alliance partners. Thus, most of the air being flown was 'JOA-wide' interdiction or strategic attack sorties – with the CFACC controlling those operations in accordance with CENTCOM targeting priorities and stated rules of engagement – exactly their assigned function and a doctrinally correct role.

The strategic urgency of inserting SOF into northern Afghanistan coupled with the ongoing air 'campaign' and lack of a robust fire support (e.g. targeting) organization in both the JSOTF headquarters and within the SOF liaison element (SOLE) at the CFACC contributed to the small amount of sortie allocation to CAS or SOF-nominated interdiction in these early days. The SOC and JSOTF did not nominate many interdiction targets, nor receive a significant CAS allocation for distribution subsequent to their initial infiltrations. There was good reason for the small numbers of interdiction targets; positive identification ROE limited early-on interdiction of 'moving' targets, and thus, SOF air crews were requested to plan routes around known enemy threats. In addition, the relatively new and ad hoc Joint Fires Element (JFE) at the JSOTF was still learning and defining its role within the Theater targeting and fires process. Nor was the air support organization at the JSOTF initially robust enough to gain and distribute allocated CAS, clear fires, and coordinate CAS. At the CFACC, the SOLE was focused on deconflicting special operations air
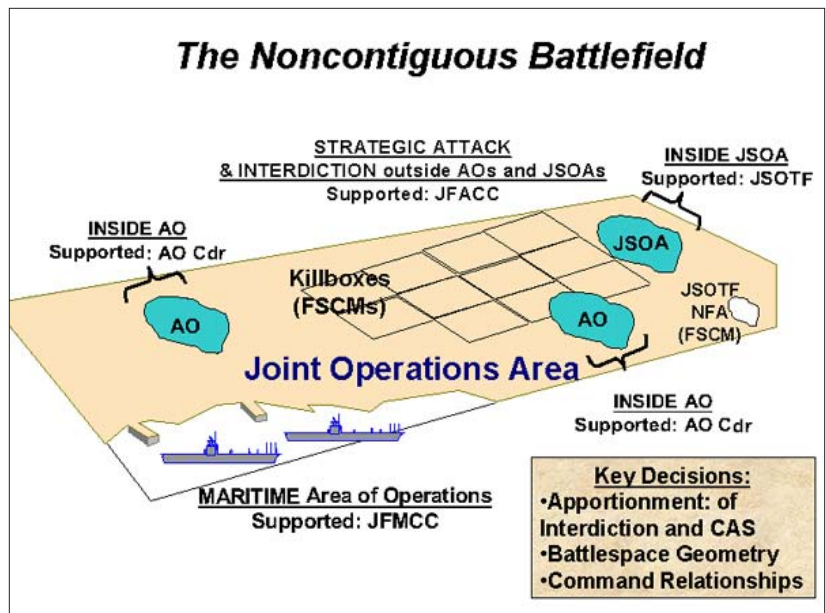
sorties with conventional air missions, as well as deconflicting interdiction and attack sorties in vicinity of ground SOF, and not focused on targeting. Bottom line – SOF prioritized their efforts on deploying forces, and planning and executing a major unconventional warfare campaign within the short timeline constraints over that of detailed theater-level coordination requirements for fires and targeting. Thus, with little special operations-nominated interdiction or pre-planned CAS, the CFACC initially provided fire support to SOF teams collocated with the Northern Alliance on an immediate CAS basis – i.e. sorties diverted from other missions.

An example of the difficulties of integrating fires in this noncontiguous environment is the operation at Masar-e-Sharif. Minimal preplanned CAS and interdiction were developed for this attack, again for good reasons. The JSOTF couldn't predict locations of the opposition groups nor the mobile enemy forces. Additionally, the nature of Afghan tribal warfare (with capitulating forces rapidly changing sides and joining their enemies) dictated against SOF overly planning for interdiction. And there was no defined AO or JSOA within which the JSOTF could 'doctrinally' designate target priorities and effects. Therefore, the JSOTF largely relied on the use of immediate CAS to meet fire support requirements. The JSOTF could possibly have taken more advantage of the targeting process to request interdiction support and preplanned CAS. But many admit, that in all honesty, SOF was spoiled by fairly responsive air. At this point, SOF on the ground was generating most of the targets, and there were abundant air assets not tasked with other requirements such as counter air, etc. SOF needed only to identify targets and the CFACC would provide fire support. CFACC assets were also very aggressive and responsive in fulfilling ECAS requests where CAS was requested to support SOF teams in unexpected contact with the enemy and in danger of being overrun.

'Field' Solution: As the war progressed, the CFACC and SOF quickly developed the 'ground directed interdiction' (GDI) concept in addition to normal CAS. The CFACC supported SOF requirements for interdiction of enemy forces that SOF could see and provide mensurated targeting data, but with whom they were not yet in direct contact. In this concept,

the CFACC generated interdiction and CAS sorties for Afghanistan without designating specific targets. The aircraft then flew to the area, and received their targets as ground teams found and reported enemy forces. Ground elements were able to direct a great number of strike platforms, including many nontraditional platforms such as B-52s. The JSOTF and the CFACC used Killbox techniques to reduce possibilities of fratricide with this GDI. The JSOTF also established a more robust air support operations center-like capability (ASOC) similar to that of an army corps ASOC. This ASOC-like organization coordinated with the CFACC, C2 aircraft, and strike platforms to facilitate the joint fires. On-call strike platforms were handed off by the ASOC or airborne C2 platform, made direct radio contact with the ground team, and successfully struck their targets as designated.

GDI was beneficial and successful for two principal reasons: most targets at this point were moving forces, not stationary facilities; and positive identification (PID) was often required in accordance with CENTCOM rules of engagement. However several minor areas have been identified as requiring additional work for future operations. First is battlespace geometry - the designation, where feasible, of areas of operation or JSOAs (remembering the size and control implications discussed earlier in battlespace geometry challenges). This designation (in addition to standard FSCMs) will assist in the targeting cycle process, with its related apportionment, target nomination aspects, and fires clearance and synchronization authorities. Second is identification of the supported commanders to ensure clear prioritization of objectives / targets. Absent this delineation, a more simplistic (and possibly incorrect) division of authority may arise; all interdiction may be viewed as in support of the JFACC, with only CAS designated to support ground commanders. Third is continued emphasis on blue force tracking through use of beacon devices (e.g. MTX and Grenadier Brat tracking devices) to ensure good situational awareness and minimize potential for fratricide. Fourth is definitive ROE that supports target engagement in situations where PID is infeasible or impossible. This ROE dilemma is a recurring challenge with no easy solution. There remains a balance between the rapid declaration of a target as hostile to enable rapid

The Noncontiguous Battlefield

STRATEGIC ATTACK & INTERDICTION outside AOs and JSOAs
Supported: JFACC

INSIDE JSOA
Supported: JSOTF

INSIDE AO
Supported: AO Cdr

JSOA

JSOTF NFA (FSCM)

Killboxes (FSCMs)

AO

AO

Joint Operations Area

INSIDE AO
Supported: AO Cdr

MARITIME Area of Operations
Supported: JFMCC

Key Decisions:
•Apportionment: of Interdiction and CAS
•Battlespace Geometry
•Command Relationships

attack with the risk of inadvertent strikes of nonhostile targets.

Summary of Identified Challenges. Many of the challenges have been noted above. However, in summary they are:

1. Lack of clearly designated supported/ supporting command relationships.

2. Lack of delineation of areas of operation and joint special operations areas.

3. Non-apportionment and allocation of air assets in support of SOF in the early portion of the fight. Included is lack of clear guidance from CENTCOM on Fires prioritization.

4. Lack of personnel at the special operations component and at the JSOTF level fully trained in joint fires procedures and capable of influencing the joint targeting process.

5. Lack of emphasis at the SOLE on targeting and fire support issues.

6. Lack of a formal ASOC-like organization at the SOF component or JSOTF level to facilitate all aerial fire support.

7. Close air support control procedures and methods (not discussed in this paper).

The Way Ahead

Insights and Recommendations.

Many are working on refining this new paradigm of fires and maneuver in noncontiguous environments. The sections below summarize some of the steps Special Operations Forces and the Air Force are taking to enhance fires and maneuver in the joint fight. They advocate increased use of small 'gridded' areas of operation, increased use of overlaid

The non-contiguous battlefield is considered to be the way ahead. Many are working on refining this new paradigm of fires and maneuver in noncontiguous environments.

'kill boxes,' increased SOF leverage of joint targeting processes, more robust and trained fire support organizations for SOF, and continued exploitation of blue force tracking technologies.

Increased use of delineated areas of operation and killboxes. No longer do areas of operation have to be linear nor large. A 'gridded' arrangement of small areas of operation that can be individually activated and deactivated has proven feasible and can support rapid decisive operations with quickly moving forces. Use of killboxes overlaid on or outside of these defined areas of operation is an excellent FSCM that facilitates more responsive fires and fire support. NFAs and RFAs may still be necessary to protect forces that may be supporting the CFACC's interdiction efforts as sensors. All of these battlespace geometry and FSCMs are enhanced through the more reliable blue force tracking means available today.

Increased SOF participation in the targeting process. SOF will continue to operate in noncontiguous environments in both supported and supporting commander roles. SOF needs to continue its increased participation in the joint targeting process through a robust, fully manned and trained joint fires element (JFE) in the headquarters. Additionally, the SOLE must better support special operations requirements for fires in the targeting and ATO development processes. The SOLE needs dedicated and trained maritime and ground expertise, similar to that of the Army's Battlefield Coordination Detachment (BCD), in order to better represent the SOC and JSOTF commanders during apportionment, target nomination, and the execution phases. Moreover, the SOLE must be directly linked to the future operations and future plans cells at the SOC and JSOTF headquarters to ensure fire support requirements for special operations are addressed in the theater-level planning cycle. The SOLE must also continue its superb activities in deconfliction and fratricide prevention.

> **The SOF community needs to enhance its knowledge and integration within the joint targeting process. The special operations community needs staff officers and NCOs who are operational-level fire support experts.**

The SOF community needs to enhance its knowledge and integration within the joint targeting process. The special operations community needs staff officers and NCOs who are operational-level fire support experts – who know the targeting process, and can plan for and direct fires to support JSOTFs. In addition to these experts, special operations officers and NCOs should attend joint aerospace command and control courses that will allow them to effectively operate as part of the Joint Fires Element (JFE) within a SOF operational headquarters. Greater coordination on fires is also required between the JSOTF and the JFACC and between the JSOTF and the JFLCC. The JFE and the SOLE need to learn how to influence the apportionment decision made by the Joint Force Commander. And, the JFE and the SOCCE need to learn how to gain the proper support by the JFLCC when operating in the JFLCC AO. The consequence for failing to learn these processes is being excluded when apportionment and allocation decisions are being made, thus being deprived of valuable fires support.

Air support organization for SOF. Much like the JFE and SOLE assist in target planning and coordination, so will an enhanced air support organization in the special operations forces (SOF) headquarters (much like the air support operations center in the corps headquarters) better facilitate actual execution of fire support for special operations. A term 'JACE' – joint air control element - has been coined by the 18th ASOG commander for this type of organization. This JACE would be a cell within the JSOTF JFE and will be key to fully integrate air power with special operations.

Blue force Tracking. Continuous blue force tracking of SOF in noncontiguous environments will enhance situational awareness and reduce chance for fratricide. Recommend SOF continue to pursue both automated tracking means (e.g. grenadier brat) while refining manual tracking and update techniques into the common operational picture (COP) when beacons are not available. Also recommend strong consideration of SOF providing full vs. discrete (or filtered) feeds to the COP to ensure common situational awareness. Believe that the likelihood of casualties due to fratricide from a lack of this situational awareness is much greater than from potential compromise of SOF locations over these secure COP mechanisms.

Training and Exercises. The SOF and conventional community can build on these insights, train staffs and commanders, and develop even better techniques and procedures through more involvement in CONUS-based, high fidelity, realistic joint training and exercises. There are many simulation and field exercises in which we can improve warfighting readiness. Train the way we'll fight – let's not do something for the first time on the battlefield

that hasn't already practiced in training or exercises.

SOF and the JFACC worked well together in OEF overcoming some initial challenges. Much was learned. SOF recognized the value of the targeting process, and the JFACC recognized the value of SOF as both a maneuver force and an accurate and discriminating sensor on the ground. SOF definitely learned the value of air apportionment and allocation to gain interdiction support and close air support. Both learned the necessity of developing clear battlespace geometry and designating supported/supporting command relationships at the start of operations. SOF learned the necessity for the SOLE to be an active player in targeting and fires – in addition to its traditional airspace coordination and deconfliction roles. SOF also learned the requirement for a knowledgeable JFE in the headquarters to better participate in the targeting process. And the JFACC discovered the necessity for an ASOC-like organization for attachment to SOF headquarters to better control allocated air assets in support of SOF operations. Yes, the insights gained from OEF in Afghanistan are of great value to our joint air and SOF organizations as they continue to develop better organizations, tactics, techniques, and procedures.

REFERENCES

1 ARCENT, designated as the CFLCC in late November, was assigned responsibility for land operations in the coalition joint operations area Afghanistan (CJOA AFG) to coordinate and synchronize land operations in late November. As a land component commander, they did not assume the full responsibilities of a joint force commander for the CJOA. This did cause confusion on targeting and fires. This same lack of definition also frustrated the 10th Mtn Div as they later took on certain CFLCC responsibilities. (Author's' perception). However, all said, we do not desire to get into this degree of detail on CFLCC operations as it will dilute the focus of the paper.

2 See first endnote for discussion on this.

3 Source: Joint Pub 3-09, Doctrine for Joint Fire Support, (Ch.1, para. 3.b.)

4 This delineation of JFACC authorities for interdiction "outside of AOs and JSOAs" is key in later discussion of the 18th ASOG coined term 'ground directed interdiction (GDI).' GDI may occur in or outside of designated AOs and JSOAs; the location of the interdiction will determine who is the supported commander and who is responsible for fires clearance.

5 As will be discussed later, the CJOA / CFLCC establishment did not fully solve the issues. By definition a CJOA includes air and surface space; the CFLCC did not control the airspace, nor have authority over the CFACC. The TACON subordination of the JSOTF-North (a joint force) to the CFLCC (a ground force) was also confusing. Again, it was the commanders, the CFLCC commander and deputy commander, the CFACC, and the JSOTF commander who worked together to accomplish the mission.

6 Fortunately, 18th ASOG deployed one of their squadrons to the JSOTF-North location. The squadron commander and his personnel were able to fulfill many of the targeting responsibilities in addition to their normal TACP functions.

7 As noted above, the 18th ASOG personnel did a great job in the targeting area. Our comments are not meant to minimize their exceptional work.

8 The JSOTF did however nominate targets for this operation. And due to the mission focus of all concerned, the operation succeeded.

9 Insights on ROE and PID are drawn form an unclassified article in "Inside The Pentagon," dated January 9, 2003, titled "Key Command Banned Nearly All Attacks On Afghan Roads, Bridges"

10 ACC and SOF units are already doing this – with great success!

CURRENT ALSA PUBLICATIONS

TITLE	DATE	PUB #	DESCRIPTION
AMCI: *Army and Marine Corps Integration in Joint Operations*	NOV 01 FY 03 Assessment	A: FM 3-31.1 M: MCWP 3-36 N/AF: N/A	Describes the capabilities and limitations of selected Army and Marine Corps organizations and provides TTP for the integrated employment of these units in joint operations. **POC: Team F** alsaf@langley.af.mil
ARM-J: *Antiradiation Missile Employment in a Joint Environment* **SECRET**	JUL 02 Will be combined with JSEAD in FY 03 revision	A: FM 3-51.2 (FM 90-35) M: MCWP 3-22.1 N: NTTP 3-01.41 AF: AFTTP(I) 3-2.11	Describes Service antiradiation missile platform capabilities, employment philosophies, ground/naval emitters, emitter ambiguities, and rules of engagement. Multi-Service procedures for antiradiation missile employment in a joint or multinational environment, with an emphasis on fratricide prevention. Current status: signature draft is approved. It can be found on the SIPRNET at http://wwwacc2.langley.af.smil.mil **POC: Team A** alsaa@langley.af.mil
AVIATION URBAN OPERATIONS: *Multiservice Procedures For Aviation Urban Operations*	APR 01 FY 03 Assessment	A: FM 3-06.1 M: MCRP 3-35.3A N: NTTP 3-01.04 AF: AFTTP(I) 3-2.29	MTTP for the tactical-level planning and execution of fixed- and rotary-wing aviation urban operations. **POC: Team E** alsae@langley.af.mil
BMO: *Bomber Maritime Operations* **(SECRET)**	JUN 00	A: N/A M: MCRP 3-23 N: NTTP 3-03.5 AF: AFTTP(I) 3-2.25	MTTP to inform bomber strike mission participants about typical fleet dispersal, and streamline communications procedures. Conversely, it assists naval strike planners to more efficiently utilize bomber assets and improve joint training opportunities. **Current Status**: Pub will transition to the USN Summer 03. **POC: Team E** alsae@langley.af.mil
BREVITY: *Multiservice Brevity Codes*	FEB 02 **(Under Revision)** **Est Pub Date: May 03**	A: FM 3-97.18 (FM 3-54.10) (FM 90-38) M: MCRP 3-25B N: NTTP 6-02.1 (NWP 6-02.1) AF: AFTTP(I) 3-2.5	A pocket-size dictionary of multi-Service use brevity codes to augment JP 1-02, *DOD Dictionary of Military and Associated Terms*. This pub standardizes air-to-air, air-to-surface, surface-to-air, and surface-to-surface brevity code words in multi-Service operations. **Current Status**: Final Coordination Draft is being staffed. **POC: Team F** alsaf@langley.af.mil
EOD: *Multi-Service Procedures for Explosive Ordnance Disposal in a Joint Environment*	Mar 01 FY 03 Assessment	A: FM 4-30.16 M: MCRP 3-17.2C N: NTTP 3-02.5 AF: AFTTP(I) 3-2.32	Provides guidance and procedures for the employment of a joint explosive ordnance disposal (EOD) force. The manual assists commanders and planners in understanding the EOD capabilities of each Service. **POC: Team B** alsab@langley.af.mil
ICAC2: *Multi-Service Procedures for Integrated Combat Airspace Command and Control*	JUN 00	A: FM 3-52.1 FM 100-103-1) M: MCRP 3-25D N: NTTP 3-52.1(Rev A) AF: AFTTP(I) 3-2.16	Provides detailed TTP for airspace C2 to include specialized missions not covered in JP 3-52, *Doctrine for Joint Airspace Control in a Combat Zone.* Includes specific information on interfaces and communications required to support integrated airspace control in a multiservice environment. **POC: Team D** alsad@langley.af.mil
IFF: *MTTP for Mk XII IFF Mode 4 Security Issues in a Joint Integrated Air Defense System* **(SECRET)**	Jan 03	A: 3-01.61 M: MCWP 3-25.11 N: NTTP 6-02.4 AF: AFTTP(I) 3-2.39	The publication educates the warfighter to security issues associated with using the Mark XII IFF Mode 4 Combat Identification System in a joint integrated air defense environment. It captures TTP used today by the warfighter that can address those security issues. **Current Status**: Approved – documents sent to printer. **POC: Team A** alsaa@langley.af.mil
JAAT: *Multi-Service Procedures for Joint Air Attack Team Operations*	JUN 98	A: FM 3-09.33 (FM 90-21) M: MCRP 3-23.A N: NWP 3-01.03 AF: AFTTP(I) 3-2.10	Provides tactics for joint operations between attack helicopters and fixed-wing aircraft performing close air support (CAS). **Current Status**: Program Approval Package under development. **POC: Team A** alsaa@langley.af.mil
JAOC / AAMDC: *Multi-Service Procedures for Joint Air Operations Center and Army Air and Missile Defense Command Coordination*	JAN 01 **(Under Revision)** **Est Pub Date: Aug 03**	A: FM 3-01.20 M: MCRP 3-25.4A N: NTTP 3-01.6 AF: AFTTP(I) 3-2.30	Addresses coordination requirements between the Joint Air Operations Center and the Army Air and Missile Defense Command. Assists the JFC, JFACC, and their staffs in developing a coherent approach to planning and execution of AMD operations. **Current Status:** Second Draft out for SME review. **POC: Team D** alsad@langley.af.mil
JATC: *Multi-Service Procedures for Joint Air Traffic Control*	JAN 99 **(Under Revision)** **Est Pub Date: Aug 03**	A: FM 3-52.3 (FM 100-104) M: MCRP 3-25A N: NWP 3-56.3 AF: AFTTP(I) 3-2.23	This revision is a ready reference source for guidance on air traffic control (ATC) responsibilities, procedures, and employment in a joint environment. Details Service relationships for initial, follow-on, and sustained ATC operations within the theater or AOR. Outlines processes for synchronizing and integrating forces and specialized ATC equipment. **Current status**: Final Coordination Draft is being staffed. **POC: Team F** alsaf@langley.af.mil

3/19/2003

ALSA PROJECTS UPDATE

CURRENT ALSA PUBLICATIONS

TITLE	DATE	PUB #	DESCRIPTION
J-FIRE: Multiservice Procedures for *Joint Application of Firepower* **Distribution Restricted**	NOV 02	A: FM 3-09.32 (FM 90-20) M: MCRP 3-16.6A N: NTTP 3-09.2 AF: AFTTP(I) 3-2.6	A pocketsize guide of procedures for calls for fire, CAS, and naval gunfire. **POC: Team A** alsaa@langley.af..mil
JIADS: *Multiservice Procedures for Joint Integrated Air Defense System* **Restricted Distribution**	JUN 01 FY 03 Assessment	A: FM 3-01.15 M: MCRP 3-25E N: NTTP 3-01.8 AF: AFTTP(I) 3-2.31	This publication provides joint planners with a consolidated reference on Service air defense systems, processes, and structures, to include integration procedures. **POC: Team D** alsad@langley.af.mil
JSEAD: *Suppression of Enemy Air Defenses* **(SECRET)**	SEP 00 FY 03 Assessment Complete	A: FM 3-01.4 M: MCRP 3-22.2A N: NTTP 3-01.42 AF: AFTTP(I) 3-2.28	This publication provides detailed, classified tools for air operations planners and SEAD warfighters to aid in the planning and execution of SEAD operations in the joint environment. **Current Status**: Program Approval Package under development. **POC: Team A** alsaa@langley.af.mil
JSTARS: *Multi-Service Tactics, Techniques, and Procedures for the Joint Surveillance Target Attack Radar System* **(SECRET)** **Revised publication is Unclassified and Distribution Restricted**	JUL 97 **(Under Revision)** **Est Pub Date: Feb 03**	A: FM 3-55.6 (FM 90-37) M: MCRP 2-1E N: NWP 3-55.13 (Rev A) AF: AFTTP(I) 3-2.2	This publication provides procedures for the employment of the Joint Surveillance Target Attack Radar System (JSTARS) in dedicated support to the JFC. Revision will be unclassified. The unclassified revision describes multiservice TTP for consideration and use during planning and employment of the JSTARS. **Current status**: Forwarded to Services for signature. **POC:Team D** alsad@langley.af.mil
JTF IM: *Multiservice Procedures for Joint Task Force Information Management* **Revision is Distribution Restricted**	APR 99 **(Under Revision)** **Est Pub Date: Jun 03**	A: FM 6-02.85 (FM 101-4) M: MCRP 3-40.2A N: NWP 3-13.1.16 AF: AFTTP(I) 3-2.22	This publication describes how to manage, control, and protect information in a JTF headquarters conducting continuous operations. **Current status:** Preparing Signature Draft. **POC: Team G** alsag@langley.af.mil
JTF Liaison Officer Integration: *Multiservice Tactics, Techniques, And Procedures For Joint Task Force (JTF) Liaison Officer Integration*	JAN 03	A: FM 5-01.12 (FM 90-41) M: MCRP 5-1.B N: NTTP 5-02 AF: AFTTP(I) 3-2.21	This publication defines liaison functions and responsibilities associated with standing up a JTF. **POC: Team B** alsab@langley.af.mil
JTMTD: *Multiservice Procedures Joint Theater Missile Target Development*	OCT 99 **(Under Revision)** **Est Pub Date: Jul 03**	A: FM 3-01.51 (FM 90-43) M: MCRP 3-43.3A N: NWP 3-01.13 AF: AFTTP(I) 3-2.24	The JTMTD publication documents TTPs for threat missile target development in early entry and mature theater operations. It focused on providing a common understanding of the threat missile target set and information on the component elements involved in attack operations target development. It also focused on IPB methodology as applied to developing the target set, to include sensor employment considerations. **Current Status:** Final Coordination Draft out for worldwide review. Comments due NLT 28 Mar 03. **POC: Team D** alsad@langley.af.mil
NBC: *Multiservice Procedures for Nuclear, Biological, and Chemical Defense(NBC) of Theater Fixed Sites, Ports, and Airfields*	SEP 00	A: FM 3-11.34 M: MCWP 3.37.5 N: NTTP 3-11.23 AF: AFTTP(I) 3-2.33	This publication provides a comprehensive approach to NBC defense of fixed sites, ports, and airfields. **Current Status**: Joint Service Integration Group (JSIG) is now the proponent. **POC: Team E** alsae@langley.af.mil
NLW: *Tactical Employment of Nonlethal Weapons*	JAN 03	A: FM 3-22.40 (FM 90-40) M: MCWP 3-15.8 N: NTTP 3-07.3.2 AF: AFTTP(I) 3-2.45 USCG: USCG Pub 3-07.31	This publication: - Supplements established doctrine and TTP. - Provides a source of reference material to assist commanders and staffs in planning and coordinating tactical operations. - Incorporates the latest lessons learned from real world and training operations, and examples of TTP from various sources. **Current Status:** Forwarded to publisher 31 Jan 03. **POC: Team C** alsac@langley.af.mil

ALSA PROJECTS UPDATE

CURRENT ALSA PUBLICATIONS

TITLE	DATE	PUB #	DESCRIPTION
Reprogramming: Multi-Service Tactics, Techniques, and Procedures *for Reprogramming of Electronic Warfare and Target Sensing (Distribution Restriction)*	JAN 03	A: FM 3-51.1 (FM 34-72) M: MCRP 3-40.5B N: NTTP 3-13.1.15 AF: AFTTP(I) 3-2.7	This publication supports the JTF staff in the planning, coordinating, and executing of reprogramming of electronic warfare and target sensing systems as part of joint force command and control warfare operations. **Current status:** Approved – Document sent to Printer **POC: Team G** alsag@langley.af.mil
RM: Risk Management	FEB 01 FY 03 Assessment	A: FM 3-100.12 M: MCRP 5-12.1C N: NTTP 5-03.5 AF: AFTTP(I) 3-2.34	This publication provides a consolidated multi-Service reference, addressing risk management background, principles, and application procedures. **POC: Team C** alsac@langley.af.mil
SURVIVAL, EVASION, AND RECOVERY: *Multiservice Procedures for Survival, Evasion, and Recovery* **Revision is Distribution Restricted**	JUN 99 **(Under Revision) Est Pub Date: Mar 03**	A: FM 3-50.3 (FM 21-76-1) M: MCRP 3-02H N: NWP 3-50.3 AF: AFTTP(I) 3-2.26	This publication provides a weather-proof, pocket-sized, quick reference guide of basic survival information to assist Service members in a survival situation regardless of geographic location. **Current status:** Forwarded to Services for Signature. **POC: Team B** alsab@langley.af.mil
TADIL-J: *Introduction to Tactical Digital Information Link J and Quick Reference Guide*	JUN 00 FY 03 Assessment	A: FM 6-24.8 M: MCRP 3-25C N: NWP 6-02.5 AF: AFTTP(I) 3-2.27	This publication provides a guide for warfighters with limited or no experience or background in TADIL J and needing a quick orientation for supplemental or in-depth information. TADIL J is also known in NATO as Link 16. **POC: Team C** alsac@langley.af.mil
TAGS: *Multiservice Procedures for Theater Air Ground System*	JUL 98 **(Under Revision) Est Pub Date: Mar 03**	A: FM 3-52.2 FM 100-103-2) M: MCWP 3-25F N: NWP 3-56.2 AF: AFTTP(I) 3-2.17	This publication promotes inter-Service awareness regarding the role of airpower in support of the JFC's campaign plan, increases understanding of the air-ground system, and provides planning considerations for the conduct of air-ground operations. **Current status:** Signature Draft forwarded to Services for approval. **POC: Team D** alsad@langley.af.mil
TACTICAL RADIOS: *Multi-Service Communications Procedures for Tactical Radios in a Joint Environment*	JUN 02	A: FM 6-02.72 (FM 11-1) M: MCRP 3-40.3A N: NTTP 6-02.2 AF: AFTTP(I) 3-2.18	This publication standardizes joint operational procedures for Single-Channel Ground and Airborne Radio Systems (SINCGARS) and provides an overview of the multi-Service applications of Enhanced Position Location Reporting System (EPLARS). **POC: Team C** alsac@langley.af.mil
TMD IPB: *Multiservice Procedures for Theater Missile Defense Intelligence Preparation of the Battlespace*	MAR 02	A: FM 3-01.16 M: MCRP 2-12.1A N: NTTP 2.01.2 AF: AFTTP(I) 3-2.36	This publication provides a systematic and common methodology for analyzing the theater adversary missile force in its operating environment. **POC: Team G** alsag@langley.af.mil
UXO: *Multi-Service Procedures for Unexploded Explosive Ordnance Operations*	AUG 01 FY 03 Assessment	A: FM 3-100.38 M: MCRP 3-17.2B N: NWP 3-02.4.1 AF: AFTTP(I) 3-2.12	This publication describes hazards of unexploded explosive ordnance (UXO) sub- munitions to land operations, addresses UXO planning considerations, and describes the architecture for reporting and tracking UXO during combat and post conflict. **POC: Team B** alsab@langley.af.mil
RECCE-J: *Multiservice Procedures for Requesting Reconnaissance Information in a Joint Environment.*	JUNE 1996 Assessment decision to rescind when JP 3-55 is approved.	A: FM 3-55.43 (FM 34-43) M: MCRP 2-2.1 (MCRP 2-1D) N: 3-55.2 AF: 3-2.13	This publication explains reconnaissance and the intelligence cycle; describes reconnaissance products; and demonstrates how to use and prepare formats for reconnaissance requests. **NOTE:** The information in this publication is being incorporated into JP 3-55 (ISR). It will be rescinded upon approval of the JP. **POC: Team G** alsag@langley.af.mil

NEW ALSA PROJECTS			
TITLE	**EST PUB DATE**	**PUB #**	**DESCRIPTION AND STATUS**
ADUS: *MTTP for AIR DEFENSE of the United States* **(SECRET)**	Dec 03	A: TBD M: TBD N: TBD AF: TBD	This MTTP supports planners, warfighters, and interagency personnel participating in air defense of the US by providing general information for planning, coordination, and execution in homeland air defense missions. Pub is primarily focused at the tactical level. Includes Operation NOBLE EAGLE, and Clear Skies Exercise, lessons learned. **Current Status:** 1st JWG scheduled for Apr 15-18 2003. **POC: Team E** alsae@langley.af.mil
COMBAT CAMERA: *MTTP for Joint Combat Camera Operations*	Apr 03	A: FM 3-55.12 M: MCRP 3-33.7A N: NTTP 3-13.12 AF: AFTTP(I) 3-2.41	This publication will fill the void that exists regarding combat camera doctrine, and assist JTF commanders in structuring and employing combat camera assets as an effective operational planning tool. **Current Status:** Forwarded to Services for approval. **POC: Team G** alsag@langley.af.mil
HF-ALE: *Multi-Service Procedures for High Frequency-Automatic Link Establishment (HF-ALE) Radios*	Jul 03	A: TBD M: TBD N: TBD AF: TBD	This MTTP will standardize high power and low power HF-ALE operations across the Services and enable joint forces to use HF radio as a supplement / alternative to overburdened SATCOM systems for over-the-horizon communications. **Current Status:** 1st SME Draft out for staffing. **POC: Team C** alsac@langley.af.mil
IDM: *Multi-Service Tactics, Techniques, and Procedures for Improved Data Modem Integration*	Mar 03	A: FM 6-02.76 M: MCRP 3-25G N: NTTP 6-02.3 AF: AFTTP(I) 3-2.38	This publication provides digital connectivity to a variety of attack and reconnaissance aircraft; facilitates exchange of near-real-time targeting data and improves tactical situational awareness by providing a concise picture of the multi-dimensional battlefield. **Current Status:** Forwarded to Services for approval. **POC: Team C** alsac@langley.af.mil
HAVE QUICK	TBD	A: TBD M: TBD N: TBD AF: TBD	OJCS J-6 requesting ALSA develop an UNCLAS MTTP for HAVE QUICK. HAVE QUICK is a jam resistant UHF radio system used by all Services. Currently, there are three HAVE QUICK publications (CJCSMs), two of which are Classified. Lessons learned in Kosovo revealed many units did not employ HAVE QUICK effectively in the joint environment. J-6 suggesting this publication may better serve the warfighter as an MTTP. All Services have verified there is a need for this MTTP. **Current Status:** HAVE QUICK JWG scheduled for 29 Apr – 2 May 2003 **POC TEAM C** alsac@langley.af.mil
JBDA	TBD	A: TBD M: TBD N: TBD AF: TBD	ALSA recently hosted a visit from the Director of the JBDA JT&E who requested ALSA look into the possibility of developing an MTTP based upon a USFK BDA user's guide. This user's guide will be validated during the upcoming UFL in Korea. **Current Status**: ALSA is researching this potential project. **POC TEAM G** alsag@langley.af.mil
Detainee Operations	TBD	A: TBD M: TBD N: TBD AF: TBD	MTTP regarding "high-risk" detainee operations. **Current Status**: Research ongoing. S: 7 May 2003 **POC TEAM E** alsae@langley.af.mil
Non-JATC Certified Personnel Procedures	TBD	A: TBD M: TBD N: TBD AF: TBD	JP 3.09-3 "JTTP for CAS" does not allow non-JTAC controllers to clear/control CAS, it does provide for observers (COLT, FIST, SOF) to pass targets to a JTAC during type 2/3 control. Although JP 3-09.3 says this is allowed, it provides no guidance to develop procedures for non-JTAC certified controllers to clear/control CAS in support of JP 3-09.3 **Current Status**: On hold until JP 3-09.3 is completed. **POC TEAM A** alsaa@langley.af.mil
UHF TACSAT	TBD	A: TBD M: TBD N: TBD AF: TBD	Develop an MTTP for UHF TACSAT Frequency Management Recent operations at JTF level have demonstrated difficulties in managing limited number of UHF TACSAT frequencies. Current methods/procedures require extensive manual tracking and manipulation. **Current Status**: Researching project (S: 4 Apr 03) **POC TEAM C** alsac@langley.af.mil
TST: *Time Sensitive Targeting* (Joint Fires Initiative/TST - Navy/Air Force TST - Specified Targets TST)	TBD	A: TBD M: TBD N: TBD AF: TBD	Synchronizes planning, targeting, and prosecution of TSTs across the JTF. **Current Status**: ALSA is combining various TST initiatives in order to develop a single Program Approval Package for a consolidated TST MTTP. **POC TEAM F** alsaf@langley.af.mil
JSHIP Study	MAR 03	NA	The purpose of the study was to determine the best "home" for the data generated by the J-SHIP JT&E. **Current Status**: Study Complete **POC TEAM E** alsae@langley.af.mil
PEACE OPERATIONS: *MTTP for Peace Operations*	Mar 03	A: 3-07.31 M: TBD N: NTTP 3-07.3.1 AF: AFTTP(I) 3-2.40	This publication provides the tactical level guidance to the warfighter for conducting peace operations. **Current Status**: Final coordination draft comments are being incorporated. A second world wide review staffing will be required due to the nature of the comments. **POC: Team E** alsae@langley.af.mil
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