TOWARD COMMON JOINT TARGETING: SYNCHRONIZING THE BATTLEFIELD THROUGH DOCTRINE?

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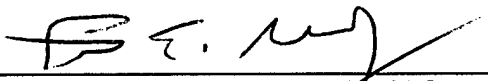

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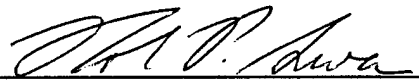

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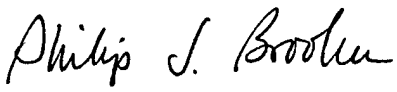

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ABSTRACT

TOWARD COMMON JOINT TARGETING: SYNCHRONIZING THE BATTLEFIELD THROUGH DOCTRINE. By Major Joel S. Westa, USAF, 51 pages.

The Joint doctrine is defined as "fundamental principles that guide the employment of forces of two or more Services in coordinated action toward a common objective. It will be promulgated by the Chairman of the Joint Chiefs of Staff, in coordination with the combatant commands, Services, and the Joint Staff." The purpose of having joint doctrine is to prevent duplication of effort, and to provide a common source of doctrine for joint operations. Between 1991 and 1995 US military forces participated in 51 operations, and all of these were joint operations. The current downsized military coupled with increasing commitments around the globe guarantee that the majority, if not all operations in the future will be joint in nature.

Since the majority of recent military operations have been joint operations, and the future seems to hold the same, the importance of this single source of doctrine for all services cannot be stressed enough. "The outstanding characteristic of all joint operations is their relative complexity compared to single Service operations. The increasing complexity of today's forces exacerbates the coordination problem, while the lethality and accuracy of modern weaponry demand a higher standard of control." There are however, several issues in the arena of joint doctrine causing difficulties among the specific service components. One of the most heated arguments deals with the subject of targeting.

The current US Army D3A method, Decide, Detect, Deliver, and Assess, is a perfectly acceptable and valuable tool for targeting fires on the Tactical level. It is not suitable for use at the Operational level, as it leaves out some critical aspects of the Joint Process, namely the CINC's Guidance and weaponeering. Although some references state the two methods are interchangeable, this is not true. The D3A process is meant to be used at the tactical level, and is not suitable for use at the Operational level. For this reason, it should not appear in a theater level publication, which is at the Operational level.

Allowing both targeting models to appear in Joint Publications presents the user with a choice, when there should only be one model available for Operational level targeting in these theaters. This study will compare both methods, with the bulk of the discussion being devoted to the critical differences between the two, and how this effects the targeting process, as it currently exists at the Operational level.

This study answers the question of whether or not having two different targeting methodologies appear in joint targeting doctrine violates the purpose of the Goldwater-Nichols legislation, namely to avoid duplication of effort and confusion on the battlefield.

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Chapter 1: INTRODUCTION

> "Doctrine is like a compass bearing: it gives us the general direction of our course. We may deviate from that course on occasion, but the heading provides a common purpose for all who travel along the way. This puts a grave burden on those who formulate doctrine, for a small error, even a minute deviation in our compass bearing when setting out, may place us many miles from the target at the end of the flight. If those who distill doctrine from experience or devise it from logical inference in the abstract fail to exercise the utmost rigor in their thinking, the whole service suffers." I.B. Holley, Jr [1]

From the time the National Security Act of 1947 unified the defense establishment, numerous Secretaries of Defense (SecDef) have struggled with the roles and missions of the Department of Defense (DoD) component services, to include the Joint Chiefs of Staff (JCS) and unified commands. SecDefs found throughout this period, that although assigning roles and missions to these organizations was a difficult task, it could be done. The real difficulty came in attempting to enforce compliance. The SecDef and the JCS lacked the authority to do this.[2] The Goldwater-Nichols Act of 1986 was designed to promote Joint Operations between the military services of the United States, and to empower the civilian authorities and especially the Chairman of the JCS, making him principal military advisor to the President and the SecDef, and assuring all that the chain of command from the Commanders in Chief (CINCs) to the President went through him.[3] It was enacted partially as the result of several flawed military operations, the most visible being "Desert One", the botched rescue attempt of the Iranian hostages. This legislation rationalized joint organization and paved the way for additional military

success by supporting unity of command.[4] The same legislation created the Joint Chiefs of Staff (JCS), establishing a permanent structure to coordinate US land, sea, and air forces recognizing that multiplying force effectiveness through joint action was critical to military success.[5] Critical to multiplying that force effectiveness is Joint Doctrine and Joint Tactics, Techniques, and Procedures (JTTP).

Joint doctrine is defined as "fundamental principles that guide the employment of forces of two or more Services in coordinated action toward a common objective. It will be promulgated by the Chairman of the Joint Chiefs of Staff, in coordination with the combatant commands, Services, and the Joint Staff."[6] The purpose of having joint doctrine is to prevent duplication of effort, and to provide a common source of doctrine for joint operations. Between 1991 and 1995 US military forces participated in 51 operations, and all of these were joint operations.[7] The current downsized military coupled with increasing commitments around the globe guarantee that the majority, if not all operations in the future will be joint in nature.

Since the majority of recent military operations have been joint operations, and the future seems to hold the same, the importance of this single source of doctrine for all services cannot be stressed enough. "The outstanding characteristic of all joint operations is their relative complexity compared to single Service operations. The increasing complexity of today's forces exacerbates the coordination problem, while the lethality and accuracy of modern weaponry demand a higher standard of control."[8] There are however, several issues in the arena of joint doctrine causing difficulties among the specific service components. One of the most heated arguments deals with the subject of targeting.

According to US Army FM 6-20-10, Tactics and Procedures for Targeting, targeting is the process of selecting targets and matching the appropriate response to them on the basis of operational requirements and capabilities. It is "a complex and multidisciplined effort that requires coordinated interaction among many groups."[9] Joint Pub 3-56.1, Command and Control for Joint Operations, agrees with the previous definition, but adds that, "Targeting is complicated by the requirement to deconflict duplicative targeting by different forces or different echelons within the same force and to synchronize the attack of those targets with other components of the joint force."[10] Joint Pub 3-09, Doctrine for Joint Fire Support states, "To be effective, the combining of joint fire support and maneuver relies on the fundamental and beneficial effects of teamwork, unity of effort, and the synchronization of capabilities in time, space, and purpose."[11]

Targeting is one key area where service specific doctrine does not mirror joint doctrine. It was a critical area identified after the Gulf War and still causes consternation among the services. Prior to the Goldwater-Nichols legislation the closest thing to a joint targeting board was Strategic Air Command's (SAC) Joint Strategic Targeting and Planning Staff (JSTPS), used to assign strategic targets to specific nuclear weapons in the Single Integrated Operational Plan (SIOP). The lack of a procedural mechanism for joint targeting caused some problems during DESERT STORM and continues to cause rifts amongst the services. The interface between the newly created Joint Targeting Coordination Board (JTCB) and the Army's Battlefield Coordination Element (BCE) caused some perception problems during the gulf war.

> "Initially ground commanders of the VII and 18th ABN were dissatisfied with the JFACCs Battlefield Preparation. They felt their target requests were not being serviced. In reality, the problem did not lie with the JFACC, but rather the

> JTCB process, which was not used. Waller approved all targets himself, and there was no method in place to inform the Corps commanders that their priorities were actually being decide by the JFLCC based on HIS desires to shape the battlefield and maintain the element of surprise for the upcoming ground offensive. The ground commanders could have been better served by the JTCB and the properly functioning BCE...if they had been properly functioning. .."[12]

The Air Land Sea Application Center (ALSA), and organization designed to integrate multi-service procedures, states in their publication, Targeting: The Joint Targeting Process and Procedures for Targeting Time-Critical Targets, "Joint Force Commanders (JFCs) require common joint targeting procedures to de-conflict targeting operations, prevent duplication of effort, and reduce the potential for fratricide throughout the fluid, dynamic battlespace. This is especially true when joint force components have areas of operations that potentially overlap, as well as mutual interests and capabilities to strike targets of common interest."[13]

Currently, each service has its own methodology for targeting. The Army and Marine Corps methods are very similar, and can be grouped into the Decide, Deliver, Detect, and Assess (D3A) methodology, while the Air Force and Navy's procedures more closely mirror the Joint 6-step process, adding the steps of receiving commander's guidance and weaponeering to the existing D3A steps.

The reasons for the difference lies in the type of targeting the specific services do on a regular basis. The ground component targeteer is concerned mainly with the tactical battle, deciding on high payoff targets (HPT's) directly effecting his commander's scheme of maneuver at the tactical level. The Air Force and Navy are typically concerned with operational and strategic level targets, and this is reflected in their targeting methodology.

Herein lies the crux of the problem. In a joint environment, when the Joint Forces Commander (JFC) is deciding the targets to strike throughout his theater, what targeting methodology should he use? Will the use of the incorrect methodology effect the prosecution of targets in his battlespace, and ultimately the success of his theater campaign?

There remains confusion over current Joint Targeting Procedures in several theaters of operations, caused in part by varying guidance in the multitude of different Joint Doctrinal Publications. More specific Theater targeting publications no longer include both service specific and joint targeting methods, while the Joint publications refer to both. This would lead one to believe that you could use processes interchangeably, which is incorrect. Generals Reimer and Fogelman, in an article entitled "Joint Warfare and the Army-Air Force Team", state that on a "fluid, dynamic battlefield, joint force commanders (JFCs) cannot permit disagreements on issues such as targeting and missile defense to remain unresolved. We must minimize the differences and move toward greater understanding of one another's strengths and limitations."[14] Does it violate the intent of the Goldwater-Nichols Act to have service specific targeting methodology in Joint Level publications at the Operational level, or should it be removed and only Joint Doctrine and JTTP be allowed to appear?

The current US Army D3A method, Decide, Detect, Deliver, and Assess (D3A), is an excellent and valuable tool for targeting fires at the tactical level. The problem comes at the Operational level, where it is not as useful because it leaves out some critical aspects of the Joint Process, namely the Commander's Guidance and Weaponeering. Although some references state the two methods are interchangeable, this is not true. The

D3A process was designed to be used at the tactical level, and lacks utility for use at the operational level due to the more complicated nature of operational campaign planning. For this reason, it no longer appears in theater level targeting publications in the Republic of Korea or in the CENTCOM AOR. It does appear in several Joint Doctrinal manuals, which are inherently designed to be used at the operational level, and therefore creates confusion. Thus, this tactical model should be removed form these publications.

The purpose of this monograph is to examine this specific joint targeting issue in US operational level war-fighting doctrine. Chapter two will narrow the scope of the paper by addressing the US Army and Marine Corps targeting methodology, known as D3A, or Decide, Detect, Deliver, and Assess, found in US Army Field Manual (FM) 6-20-10. Chapter three will then examine the 6-step Joint Targeting Process from Joint Publication (JP) 3-09, with emphasis being placed on the two steps of the 6-step Joint process not included in the D3A process. A review of the joint targeting publications will occur in Chapter four, and the final chapter will examine current joint and theater level targeting publications from US Central Command (USCENTCOM) and the Deep Operations Primer for Republic of Korea-Combined Forces Command.

According to the guidelines set down by the Goldwater-Nichols legislation, joint operations and doctrine must avoid the duplication of effort. "Clear, concise, and unambiguous joint publications ensure the understanding of the nature of joint warfare. Joint Pubs should lay the foundation upon which joint operations build."[15] According to Joint Pub 3-0, the guidance in Joint Doctrinal publications is authoritative and "will be followed, unless exceptional circumstances dictate otherwise. If conflicts arise between the contents of this publication and the contents of Service publications, this publication

will take precedence for the activities of joint forces unless the Chairman of the Joint Chiefs of Staff, normally in coordination with the other members of the Joint Chiefs of Staff, has provided more current and specific guidance."[16] Examining joint targeting methodology under the scrutiny of the directive nature of joint publications, it will be evident that the D3A process should be removed from the Joint publications currently in force or in draft status, and the 6 Step Joint Targeting Process must be the ONLY method used. Allowing both targeting models to appear in Joint Publications presents the user with a choice, when there should only be one targeting process available for Operational level targeting in the joint arena. "Components must understand the joint targeting process to fulfill the JFC's intent and objectives." [17] This study recommends that all targeting publications at the operational level and all Joint Doctrinal Publications include ONLY the 6-step Joint targeting model to ensure standardization when preparing for the Joint Targeting Board.

With the future relying predominately on joint military operations, clear, concise, and unambiguous doctrine will be the only guide through the maze of complex operations facing the US military. It is time all joint doctrine and joint theater publications cease to contain duplicative and parochial efforts in support of the Joint Force Commander's theater campaign and ensure clear, unambiguous guidance, the kind that breeds successful operations.

Chapter 2: Decide, Detect, Deliver, and Assess: D3A

The US Army and US Marine Corps share both a common targeting methodology as well as a common targeting Field Manual. FM 6-20-10, "Tactics, Techniques, and Procedures for the Targeting Process", serves also as Marine Corps Reference Publication 3-1.6.14. Chapter One of this publication states that "The Army will not operate alone in the uncertain, ambiguous security environment described in Joint Pub 3-0 and FM 100-5. Operations involving Army forces will always be joint. The overarching operational concept is that joint force commanders (JFCs) synchronize that action of air, land, sea, space, and special operations forces (SOFs) to achieve strategic and operational objectives through integrated, joint campaigns and major operations."[18] The manual also states that it is descriptive and not prescriptive in nature and has applicability in any theater of operation, thus allowing adaptability in the "most dynamic situation."[19]

Chapter Four of the FM states that "Targeting at Corps and Division level is primarily at the *tactical level of war.* (italics added) It involves commanders and staffs in the decide, detect, deliver, and assess functions in support of tactical operations."[20] The D3A targeting methodology is an excellent tool for managing fires on a tactical level, but lacks two critical steps needed for targeting at the operational level. To fully appreciate these missing steps, a thorough understanding of the four current steps in D3A is necessary.

DECIDE

FM 6-20-10 defines the Decide step as the most important of the four, one that "requires close interaction between the commander and the intelligence, plans, operations, and fire support cells." [21] The successful completion of this step is directly related to how well the staff understands the Unit mission, Commander's intent and concept of operations, and the Commander's initial planning guidance. The by-products of this step are the Scheme of Maneuver and Fires, the High Payoff Target List (HPTL), Intelligence collection plan, attack guidance matrix, and target selection standards. [22] "The decide function gives a clear picture of the priorities that apply to the following: Tasking of target acquisition assets, Information processing, selection of an attack means, and requirement for combat assessment."[23] The command and staff process occurring during the decide process is Mission analysis, planning guidance and intent, Course of action (COA) development, wargaming, commander's estimate, and plan/order approval.

DETECT

The detect function begins during the execution portion of the D3A process. The collection manager supervises the execution of the plan decided upon in the detect phase, and focuses his assets toward the commander's Priority Information Requests (PIRs). This information is passed to the controlling agency, which then tasks assets to strike these targets. As these targets are developed, appropriate attack systems are tasked in accordance with the attack guidance and location and requirements of the system.[24]

DELIVER

The main function of this step is the attack of targets in accordance with the attack guidance. Once the attack system has been selected, the specific attack system, type of

ordnance, time of attack, and coordinating instructions are selected and ordered. Although this step is where the selected targets are attacked, the critical pieces of the process are the steps prior to and after the deliver function. If the targets being struck do not fulfill the commanders intent and guidance in the theater, then a mistake has been made in the first two steps of D3A. This in turn would be discovered during the assess phase, where the targets would be examined to determine if the specified damage was achieved.

ASSESS

This step provides feedback for the commander as to the results of mission execution. If, based upon this combat assessment, the commanders guidance has not been met for the desired effect on the target, the deliver phase will be repeated and assessed until it has been met.

FM 60-20-10 includes two sections devoted to Joint Targeting Methodology, one section found within Chapter one, the second, "Targeting in a Joint Environment" is a separate chapter. The complexity of targeting in the Joint environment is discussed in chapter one, as is the need for supporting the JFCs fight. "The organizational challenge for the JFC is to meld existing service component architecture into an effective joint targeting team for operational level targets without degrading their primary mission of targeting support to their respective components."[25] The need for the JFC to "meld" the service component architecture is no longer necessary, due to the establishment of joint publications and the JTCB. JFCs normally organize the JTCB as an integrating center to accomplish broad oversight, or as a JFC-level review mechanism. According to Joint Pub 3-60 (2d Draft), "The role and composition of the JTCB are defined by the JFC and

typically includes reviewing target information, developing targeting guidance and priorities, and preparing and refining joint target lists. The JTCB may assist the JFC in developing or revising the targeting guidance and/or priorities. The JTCB maintains a macro-level view of the area of responsibility and/or JOA and ensures targeting nominations are consistent with the JFC's campaign or operational plan (OPLAN)." [26]

The purpose of joint doctrine and the joint staff is to avoid the duplication of effort, and provide the JFC with a staff working from a common doctrinal standpoint. This fact is brought home in this chapter when it states "Staffs at all echelons must understand the coordination requirements and measures to acquire and attack targets safely and efficiently in a joint warfighting environment." [27] The heart of the issue lies in the fact that common doctrine and organizational structure already exists, eliminating the need for the JFC to "meld" the service component architecture and forcing them to understand different methodologies. This publication further recognizes that from a JFC's perspective, a target is selected for strategic and/or operational reasons, and must support his campaign plan and contribute to the overall success of present and future operations.[28]

The targeting process in the joint environment at the operational level is complex, requiring tremendous coordination. Synchronization of all assets to achieve the JFC's campaign objectives is the determining factor for success.

In chapter three, "Targeting in a Joint Environment", all of these ideas come together. Targeting is described as a cyclic process, beginning and ending with guidance from the commander. This guidance is crucial to ensure that campaign objectives are

always being met and the re-focused, if necessary. The cyclic process described in this chapter is the Joint 6-step process that will be discussed in the next chapter of this paper.

SUMMARY

FM 6-20-10, shared by the US Army and USMC, correctly states that all future Army operations will be Joint in nature. In the case of the USMC, this statement may not be as true, given the USMC's unique ability to project firepower as a task organized, combined arms team for a limited period of time.

The FM also provides a sound tactical targeting methodology for use at all echelons up to division and corps. It adequately addresses the Joint Targeting process, and prepares those Army members of the JTCB fully. The problem lies in the attempt to use the D3A methodology as a substitute for the Joint 6-step process. While an excellent tool for picking targets at the tactical level, it does not adequately address some key elements necessary for success at the operational level. These key elements will be addressed in the next chapter during the discussion of the Joint 6 step targeting methodology.

As General Marty, the former commander of the US Army Field Artillery School at Fort Sill, OK stated; "The linchpin to fighting with fires in joint operations remains synchronization. A common joint targeting doctrine is essential, so all available means and systems can provide the JTF commander maximum combat power. We now have the systems to see and destroy the enemy anywhere on the battlefield, but the services don't share a common decide-detect-deliver methodology for using these systems."[29] It is critical to understand the intent of Joint doctrine is to avoid duplication of effort and confusion on the battlefield. Joint Doctrine exists in order to provide a common ground

for all services, and should be used to the maximum extent possible. It also exists to provide a common reference for the fielding of forces by the JFC. In a Joint environment, all targeting should be accomplished using the approved Joint 6-step method to synchronize the effort and avoid duplication.

Chapter 3: The Joint 6-step Targeting Process

> "Each component must understand the perspective and target priorities of other component targeting efforts throughout the campaign. Component targets may not necessarily be joint targets; therefore, coordination requirements may seem minimal. However, there may be situations where component organic weapons may be easily available, yet not the most capable. In such cases, coordination with other components may allow more efficient destruction of the target through the synchronized use of other available assets." [30]

The Joint 6-step targeting process appears in all Joint publications dealing with targeting. As stated earlier, joint doctrine takes precedence over service specific doctrine and is designed to eliminate confusion, duplication of effort, and fratricide. It is critical that all members of the joint targeting staff be familiar with the 6-step process, since it will be used for all future operations. According to Joint Pub 3-60, Joint Doctrine for Targeting, "Joint force commanders (JFCs) require common joint targeting procedures to deconflict targeting operations and prevent duplication of effort. Components must understand the joint targeting process to fulfill the JFC's intent and objectives."[31] (3-60/vii) The 6-step targeting cycle provides a repetitive process for the planning, coordination, allocation, and tasking of the JFCs forces.[32]

Since targeting is a cyclic process, an understanding of each step of the 6-step process must be undertaken. The joint targeting process is "a continuously operating series of closely related, interacting, and interdependent functions."[33]

Commander's Objectives and Guidance:

This is the most critical phase of the joint targeting cycle. Objectives are defined as the desired position or purpose. These start at the national level as broadly defined strategy statements, and become more specific and dynamic as commanders interpret them into specific courses of action. Guidance on the other hand, provides the framework for employing forces to achieve these objectives. The JFC refines this national strategic guidance and provides his commander's intent, guidance, and clear, measurable, and attainable objectives that become specific courses of action.[34] This is the JFCs vision for what constitutes military success, and also defines his intent of the campaign, operations, and sets priorities.[35] "JFCs establish broad planning objectives and guidance for attack of enemy strategic and operational centers of gravity and interdiction of enemy forces as an integral part of joint campaigns and major operations." [36] It is critical to note this is done by the JFC, who takes the strategic guidance provided by the National Command Authority and applies it at the operational level. At the component level, objectives, guidance, and tasking provide the purpose for the rest of the targeting process.[37] While battles will be fought at the tactical level, the objectives and the resulting campaigns are at the operational level. It is important then, to have a common doctrine that addresses targeting at this higher level.

This step is critical to the entire process, and is only addressed as a substep of the D3A process. Given the strategic and operational significance of this step, which drives the entire campaign, it deserves a much higher priority. At the tactical level, unlike the operational level, the commanders guidance may be a subset of a larger step due to the nature of the battle being fought. Because of the necessity to relate every action to

strategic and operational guidance and objectives, and due to the inter-relation of target effects at the operational level, it is critical that this be a separate step at the Joint operational level.

Target Development:

Target development refers to the systematic evaluation of potential target systems, individual targets, and the elements of each target. This complex step is a constant one, and requires constant, intense analysis, refining target sets based on the JFCs changing objectives and guidance. "Target development closely examines enemy doctrine and order of battle as well as takes into account operational concerns such as friendly schemes of maneuver, assets available, and battlespace geometry/management."[38] This complex step in the process is made up of several steps, including:

1. Establishing information requirements
2. Identifying potential target systems
3. Identifying critical nodes and their activities and functions
4. Develop target system models and utility measures
5. Validate target and "no-hit" lists
6. Define production requirements

The inputs to this step are the Operation Plan Joint Target List (OPLAN JTL) Annex, which constitutes a pre-defined target baseline, the Battlespace Geometry Management Assessment, which provides Intel planners information to develop targets based on regional and geographic characteristics, All Source national agency support, Enemy Orders of Battle (EOBs), Enemy military capability studies, current Intel assessment, component target nominations, JTCB inputs, and existing Basic

Encyclopedia (BE) numbered targets. The output of this step is the Joint Target List (JTL), the initial list of campaign targets.[39] While the individual components nominate targets as a part of the previous step, many do not find their way onto the JTL, which reflects the objectives and directives of the JFCs campaign. This JTL is then prioritized by the designated targeting agency determined by the JFC, which then assigns a relative importance and significance within a specific target system and to other targets. The Restricted Target list and specific target information also follow this for each of the targets on the JTL.

The D3A method would place these first two steps of the Joint 6 step process within the boundaries of the decide function. These first two steps of the 6 step process are complex, requiring detailed analysis of the commanders guidance and target base of the country being targeted, and need to stand alone, not lumped together into one step. The interrelationship of the steps of the two processes can be seen in appendix one. This target development phase leads to the other critical step of the Joint process left out by D3A; weaponeering assessment.

Weaponeering Assessment:

Weaponeering assessment is a critical phase at the operational level, for it is here that force application options are decided based on the desired effects on the target. The only way to properly assess this is to weaponeer each target and then assign an asset to strike it in order to achieve the desired results, based on the JFCs guidance. This process is a lengthy one, but is absolutely vital to achieving the JFCs guidance in the realm of targeting. "The process depends on detailed intelligence analysis of target construction and vulnerabilities combined with operational assessments of weapons effects and

delivery parameters. Weaponeering assessment determines the quantity, type, and mix of lethal and non-lethal weapons required to achieve the desired results."[40] Simply put, it is an analysis done for economy of force purposes. Weaponeers must consider any required effects by the nominating component, such as duration of effects and type of kill required.

Weaponeering is a process air planners are very familiar with, taking specific target data in combination with threat analysis and assets available, and deriving the best platform and weapon to attack and achieve the desired effects on the target. Based on the strike assets available, several options will be presented, thus giving tremendous flexibility to the JFC in the prosecution of his campaign. There are many tools available to streamline this process.

Joint Munitions Effectiveness Manuals (JMEMs) is a multi-volume guide providing the planner with a myriad of options for weaponeering a target. Once housed in numerous volumes, it is now available on CD-ROM, making its use much simpler and more efficient. There are several other programs available for weaponeering which draw from the JMEM data, which has been collected over numerous years and actual testing. Choosing a specific target type and matching it to a specific weapon/weapon system, the planner can derive a statistical probability of weapons effects. "The result in weaponeering assessment is a probability of damage against the designated target and the recommended weapons or weapons systems required to achieve the required level of damage."[41]

Once the planners derive all the options, the result is an attack plan. This attack plan, whether it be for ground or air, allows you to begin to schedule assets against specific targets. This is the heart of the next step, force application, or the selection of the

means, either lethal or non-lethal, for striking that specific target in accordance with the JFCs guidance.

Force Application:

This step integrates all of the previous steps of the 6-step cycle. Using the weaponeering data derived in the previous step and the guidance from the JFC, component commanders conduct force application planning to marry a target with a strike asset, munition, or non-lethal force asset. Besides the decision of the type of asset striking the target, support assets will also be assigned during this phase. Considerations during this phase include current component employment doctrine, capability of weapons platforms, airspace coordination, munitions availability, command and control assets, suppression of enemy air defenses (SEAD) as well as refueling assets and search and rescue (SAR).[42] All components must have a list of available assets in order to assign specific targets in a timely and synchronized manner. The key outputs of this phase are the Master Air Attack Plan (MAAP)/ Air Tasking Order (ATO) shell for the air effort, and the Attack Guidance Matrix (AGM) for the ground effort.[43]

Execution Planning/Force Execution:

Prior to this phase, the JFC will issue mission type orders directing component commanders to execute the operation. All of the steps prior to this are focused on achieving this step. The products from the previous phase, the MAAP/ATO shell and AGM allow the component commanders to begin scheduling, preparing missions, routes and tactics. Intelligence will be critical in assessing the enemy's disposition and any changes which may have occurred since the development of the AGM and ATO shell. This continuous analysis and Intelligence Preparation of the Battlefield (IPB) must

continue throughout the operation, and is the key to success. Once the plan has been executed, components need to monitor not only the effectiveness of their strikes, but those of other components as well. This lateral feedback is critical to assess whether the JFCs guidelines and desired effects on the enemy are being accomplished. Intelligence plays a critical part in all phases, but their ability to monitor the execution of the JFCs plan, and provide analysis of success or failure, is especially critical at this juncture. The intelligence collection plan is critical in order to assess the success of the initial strikes and move on to the next phase. Joint Pub 2-01.1, "JTTP for Intelligence Support to Targeting" speaks directly to the importance of the collection plan and other Intel support necessary for targeting to take place. In order to maintain the focus on the joint 6-step targeting process and the D3A targeting methodology, JPub 2-01.1 will not be discussed further. The next step, CA, marks the end of the targeting process, and it is also the step that provides inputs for the next iteration of the targeting process.

Combat Assessment:

The last phase of the joint 6-step cycle is also critical, as it affects all phases in the upcoming cycle of the process. Combat assessment (CA) is "the determination of the overall effectiveness of force employment during military operations."[44] CA analyses the effectiveness of operations in meeting the JFCs campaign objectives and helps to identify recommendations for the course of military operations. FM 90-36, "The Joint Targeting Process and Procedures for Targeting Time-Critical Targets" states that three questions can be used to make the determination whether the JFCs objectives are being met. These are:

"Were the strategic and operational and tactical objectives met by force employment?

Did the forces employed perform as expected?, and, If the above answers are no, what will fix the problem?"[45] CA provides the JFC important information on past performance so the operations staff can decide how to apply forces in future strikes.

As noted in Desert Storm after action reports, this was an important, but often poorly executed mission. Battle Damage Assessment (BDA) was critical in determining the strength of the Iraqi forces prior to beginning the ground phase of the campaign. But BDA is only one aspect of CA but seemed to garner the most attention from both commanders and media alike. There are three functions in the Combat Assessment step, all of which are important to the Joint 6-step process.

The first step in the CA function is Battle Damage Assessment. BDA is "the subjective estimate of damage to enemy forces, installations, and infrastructure resulting from the application of force to achieve operational and tactical objectives."[46] The BDA function is also divided into three substeps. The first sub-step is an estimate of the extent of physical, functional, and target system damage based upon observed or interpreted damage. This is usually derived form a single source, either the aircrew delivering the weapon, weapon systems video, unmanned imagery reconnaissance, or other sources. The second sub-step estimates the functional damage or remaining operational capability of the target, drawing on all source intelligence and operational data to determine the functional damage to the target. This requires integration of theater and national source information, to include Signals Intelligence (SIGINT), Imagery Intelligence (IMINT) and Measurement and Signature Intelligence (MASINT). The final sub-step is an estimate of the overall impact of force employment against the target system. In large-scale operations, all data is combined from every source available to make a determination of

the success of the strike against the target system. The question all these steps seeks to answer is--How successful have our efforts been to degrade or deprive the enemy's warfighting capability?[47]

The second step of the CA function deals with Munitions Effectiveness Assessment (MEA). Simply stated it is the assessment of the effectiveness of munitions against the specified targets. This includes ordnance, tactics, weapon systems, and platforms performed in combat. MEA is an operations function, but is closely tied to Intelligence, as inputs from Intel sources are critical to this step. This step is closely tied to the Weaponeering Assessment performed earlier in the 6-step process. It is here that the weaponeers validate the statistical information they used earlier to decide on the type of asset to assign to the target. MEA evaluates weapons parameters, to include delivery accuracy, fusing, and type of damage mechanisms (blast, fragmentation, or penetration). If a deficiency is identified, planners will make recommendations for changes on the next round of strikes.[48]

The final step in the CA process is Re-attack Recommendation (RR). Both operations and Intel planners accomplish this step. This provides the JFC with a recommendation to re-attack the target based on the analysis accomplished during this phase of the cycle. From this step, and the recommendations given to the JFC, objectives and directives may affect the next series of strikes.[49]

This brings the process full cycle, with the JFCs Objectives and Guidance. Starting with these objectives and guidance, operations and Intel planners will accomplish another iteration of the Joint 6-step process for the next round of strikes. For a visual representation of the Joint 6-step process, see appendix two.

Why is All This Necessary?

During the first phase of Desert Storm, the importance of this process was shown quite clearly. On the longest heavier than air combat sortie in history, B-52s took off on a round trip mission from Barksdale AFB, LA. Their mission was to launch the then highly classified conventional cruise missile (CALCM) at a series of targets, rendering the Iraqi power grids and communication systems inoperative, allowing the first wave of coalition aircraft to strike their targets in a much safer environment. This was in keeping with the commander's guidance and objectives for the air campaign, to render the enemy commanders incapable of seeing and controlling their aircraft and missile systems, and communicating with their subordinates.

The CALCM was specifically chosen by the weaponeers for use against these critical targets due to its standoff capability, accuracy, and destruction mechanism. Sorties were allocated and missions were planned, and the crews and aircraft responded when the execute order was given. The missiles were launched, and 85% struck their targets, but unfortunately, in assessing these strikes, the combat assessment step fell short of the mark.

Due to the fact the CALCM used blast for a damage mechanism, and since intelligence personnel were not briefed on the either the weapons existence or its capabilities, they had no idea what to look for when examining satellite imagery of the strikes. Not seeing any of the usual craters at the power grids, they ordered restrikes on targets already put out of commission by the CALCMs. If they had looked for the telltale signs of a blast only weapon, it would have been evident to them the weapon had accomplished its mission. Instead of striking targets by launching CALCMs from

hundreds of miles away, manned aircraft would now have to fly into harms way in order to strike a target already damaged to the level desired by the JFC. This is why the proper targeting methodology must be used in support of the JFC's objective, and why it must be unified into one methodology. A clear understanding of the importance of the CA step is critical to avoid duplicative efforts, thereby taking bombs off another target and putting lives at risk unnecessarily.[50]

SUMMARY

The Joint 6-step Targeting Process is designed to be a comprehensive series of steps used by all services in order to achieve the Joint Force commander's objectives using the best mix of strike assets available. All service components have approved the Joint 6-step process as the preferred method of targeting in a Joint environment.

The two steps missing from the D3A process are the two most important steps; Commanders Guidance and Objectives, and Weaponeering Assessment. At the Operational level, these two steps are the most important for assuring success of any campaign. The purveyors of the D3A Targeting Process state that all of the steps of the 6-step process are included somewhere within their 4 steps. This may be true, and on the tactical level, may work adequately, but this is simply due to the limited scope of operations. Commander's guidance and Objectives are subservient to the JFCs guidance for the campaign, and the tactical commander's objectives MUST, according to Army doctrine, be "nested" in the higher commander's objectives. Weaponeering at the tactical level is also limited to a small variety of weapon systems and munitions, with well-established employment procedures and the need to integrate with other components complicates targeting greatly at a higher level of war.

The Joint 6-step process is the approved method for targeting at the operational level of war, because it incorporates all components, was approved and signed off by all components, and is designed to synchronize all assets to achieve the Joint Force Commander's objectives within his theater of operations. Therefore, it must be the only process taught, published, and used at the operational level.

Chapter Four: JOINT TARGETING PUBLICATIONS

To gain an appreciation for the problem of having two different targeting methodologies within a single publication, one tactical and operational, an analysis of the contents of current joint targeting publications must take place. The purpose of this chapter is to examine the targeting methodologies found within the current and draft joint targeting publications, with the sole purpose of measuring the impact of not having a single method available for operational level planners.

Joint Pub 3-09

Joint Publication 3-09, "Doctrine for Joint Fire Support" is designed to "Provide fundamental principles and doctrine for the command and control of joint fire support for US forces throughout the range of military operations."[51] Established in this publication are "doctrine and procedures for common fire support coordination measures and allocation of fire support efforts to ensure that all forces are coordinated in their efforts to support the joint forces commander's plan."[52] As in all Joint Publications, this publication takes precedence over all Service specific doctrine, and provides the guidelines and doctrine for the activities of all US military forces operating in a joint environment.

Jpub 3-09 also states that the JFC and his staff must carefully balance resources and requirements over the course of a joint campaign or operation. "Guidance from the JFC assists component commanders' planning, coordination, and synchronization of

limited fires resources."[53] According to the conclusion in the executive summary in this publication, "The key to effective synchronization of joint fire support is thorough and continuous planning followed by aggressive coordination efforts and vigorous execution. Synchronized and integrated joint fire support links weapons effects to the JFC's campaign or operation objectives through component operations."[54] This would lead the reader to believe that in order to accomplish the complex synchronization of joint fire support of an entire theater of operations in support of the JFC's campaign objectives, the staff should rely on joint doctrine and joint tactics, training, and procedures (JTTP) to guide them. That would be in keeping with the intent of joint doctrine laid out in the Goldwater-Nichols Defense Reorganization Act, specifically in the areas of preventing duplication of effort and synchronizing all forces in support of the operational campaign. Unfortunately, this isn't the case in Joint Pub 3-09.

Chapter III of Joint Pub 3-09, Planning and Coordination, focuses on the planning and coordination of joint fire support operations. When discussing the targeting process, it is referred to as a cyclical process, incorporating all the steps of the 6-step targeting process, but never calling it by that name. This is followed by a thorough discussion of the D3A methodology, a picture of the 6-Step phases, then by a graphic of how the D3A process looks when overlaid onto the 6-step process.(see appendix 2) At one point the joint process is mentioned by name in this publication, but only for emphasis on how the D3A process incorporates the same fundamental functions as the joint process. It is interesting, and equally important to note the lead agency for the authorship of this publication is the US Army. In the joint environment of operational planning, does this violate the intent of Goldwater-Nichols, to ensure cooperation, and unity of effort in order

to synchronize the battlefield? Is the tactical model of D3A relevant in this operational level publication, or is D3A a familiar crutch to use in place of the approved joint methodology?

Joint Pub 3-56.1

Joint Publication 3-56.1, "Command and Control for Joint Air Operations", devotes a chapter to "Targeting and Tasking for Joint Air Operations". The purpose of this chapter is to ensure that the Air Tasking Order Cycle, and the targets contained within the daily ATO are in support of the JFCs campaign, and synchronized with all of the service components.

The Joint 6-step targeting process is the only method referenced in this publication, as the 6-step cycle perfectly matches the Notional ATO cycle defined in this publication. The phases of the ATO cycle include extra information directly related to the function of the Air campaign in relation to the JFCs guidance for the theater. "The JFC consults often with his component commanders to assess the results of the warfighting effort and to discuss the strategic direction and future operation plans. This provides component commanders and opportunity to introduce recommendations, support requirements, and state their ability to support other components."[55] The JFC also provides an air apportionment decision during the guidance phase, which will drive the prioritization of targets in support of the overall campaign.

It is important to note this Joint Publication, addressing Joint Air Operations at the Strategic and Operational level in support of the JFCs guidance in his theater of operations makes no mention of the D3A process. As stated earlier, while an excellent tool for fire support in the tactical battle, it is not robust or thorough enough to work at

the higher levels, due to it's lack of emphasis on the importance of the Commander's guidance, and the critical step of weaponeering.

ALSA Targeting Pub MTTP

The Air Land Sea Application Center (ALSA) targeting publication, "The Joint Targeting Process and Procedures for Targeting Time-Critical Targets" is designed to be used by joint planners to "coordinate, deconflict, and synchronize targeting operations among components assigned to a joint force."[56] It is approved for use by all of the component services, and, according to the preface, "serves as the cornerstone for planners to build and execute coordinated and integrated joint operations."[57] It is not prescriptive in nature, but only recommends procedures when multiple components have the capability to locate, identify, track, attack, and evaluate targets in overlapping areas of responsibility. While designed for use against Time Critical targets, which are defined as "...a lucrative, fleeting, land or sea target of such high priority to friendly forces that the JFC or component commander designates it as requiring immediate response."[58], this publication describes this in relation to both the Joint 6-step process, as well as D3A methodology. With the goal of joint targeting defined as the ability to provide the most efficient use of joint force assets and capitalize on their synergistic effects and to also eliminate the duplication of effort and possible fratricide, the inclusion of both targeting models works against these goals.

It is important to note that the ALSA JTTP, while presenting both targeting methods, does provide the most thorough explanation of the Joint 6-step targeting process when compared to other targeting publications. It is for this reason, the newest joint

targeting publication, Joint Publication 3-60 (2ND DRAFT) will draw heavily from the ASLA JTTP for it's information.

Joint Pub 3-60

Currently in draft status, Joint Publication 3-60 is referenced in the bibliography all of the Joint Publications mentioned to date. This is significant due to the short history of the pub, and especially due to the fact that the publication has yet to be approved by the JCS. It is currently due to bring the publication to the preliminary coordination stage of the joint doctrine development process by April 1999.[59]

The purpose of this joint publication is tenfold:

1. Define terms specific to the joint targeting process.
2. Describe the six-phase joint targeting process in detail.
3. Depict the relationship between the joint targeting process and service targeting processes.
4. Discuss basic command and control considerations for joint targeting.
5. Provide operational guidance for each phase of the joint targeting process. Define the functions, duties, and responsibilities of key personnel, as appropriate, for each phase.
6. Provide a basic description and method of employment of selected C4 systems used in targeting.
7. Discuss the formulation of all applicable target lists.
8. Discuss targeting considerations such as collateral damage, environmental risks, impact on friendly operations, political considerations, high value targets, vulnerability,etc.
9. Provide joint tactics, techniques, and procedures for target identification, deconfliction, and synchronization of attacks against time sensitive targets. Describe appropriate targeting techniques used by joint forces.
10. Describe the duties, functions, and options concerning establishing a joint target coordination board (JTCB)[60]

At a recent meeting of the JDWG responsible for Joint Pub 3-60, one recommendation was to eliminate the ninth directive and allow the ALSA JTTP publication to fulfill that directive. There were some other changes in the 6-Step Targeting process changing the names of each of the steps. While the mechanics and

functions of the steps did not change, the names of the six phases did, spelling out in a much clearer fashion what occurs in each phase. All representatives of the working group, to include the four Army representatives approved the new wording. The steps as they will appear in JPub 3-60 are as follows:

1. Commander's Objectives, Guidance, and Intent: Describes how the commander visualizes the campaign, major operation, or phase of an operation unfolding based on the selected course of action. The commander provides targeting planning and execution guidance on the types of targets, priorities, restrictions and desired effects, both lethal and non-lethal. The commander's objectives, guidance, and intent are the most important step in the joint targeting process.

2. Target Development, Nomination, and Prioritization: The analysis of target systems, their components, and elements in order to determine their significance and relevance based on the commander's objectives, guidance, and intent. Targeting strategies are developed in order to determine the best way to achieve the stated objectives. It looks further to examine the systemic and physical vulnerability of each target based on the lethal and non-lethal capabilities available. The goal of target development is to optimize the use of effects. The targets are then nominated through the proper channels for approval. Targets are prioritized based on the commander's prioritized objectives and guidance. Critical to the success of the entire targeting process is the establishment of intelligence requirements during this phase.

3. Capabilities Analysis and Tasking: A predictive analysis used to estimate the most likely outcome when using a capability to achieve an effect against a specific target. This phase should take into account target vulnerabilities, capability effects and

reliability, precision engagement requirements, tactics, as well as damage criteria and consequence management. Once the predictive analysis is accomplished, the commander will make the appropriate tasking to attack the target.

4. Mission Planning: This phase prepares detailed input for and supports the actual tasking and construction of missions by forces and weapons systems. This preparation includes detailed mission orders, target acquisition, target validation, identification of overall mission support requirements and rehearsals as needed. This phase determines how to apply available forces in order to achieve the desired objective.

5. Execution: In this phase the force prepares for, executes, and monitors actual tasking. In this phase, effective coordination, deconfliction, and synchronization maximizes effects against targets.

6. Effects Assessment: This phase determines the overall effectiveness of force or weapons system employment during military operations and to recommend future courses of action. Effects assessment is composed of three interrelated components:

(1) Battle Damage Assessment

(2) Mission Effectiveness Assessment

(3) Re-attack recommendation

This phase is the commander's primary feedback mechanism within the targeting process.[61]

SUMMARY:

There are numerous doctrinal publications available for targeting in the joint environment. All of these publications make some reference to both methodologies presented in this paper. If the goal of joint operations and the doctrine that guides them is

to eliminate duplication of effort and promote the synchronization of the assets available to achieve the JFC's mission, this must be changed. Targeting in the joint environment happens at the operational level, that level where battles and campaigns are joined together to achieve the JFC's strategy within a given theater. A targeting model designed for the tactical battlefield is not suitable at this level, for reasons addressed in the conclusion of this study.

The joint publication that seems to be setting out to change the myriad targeting publications is JPub 3-60. The JDWG concerned with this publication is actively seeking the inputs of all services to provide joint warfighters with a single authoritative targeting publication. In order to accomplish this, a section is being devoted to a comparison of the different service component targeting methodologies, simply to show the way each relates to the Joint 6-step model. This will show clearly the importance of the missing steps of the D3A process, and the need for a single targeting methodology at the operational level.

At the operational warfighting CINC level, commanders have augmented joint targeting doctrine with their own theater specific targeting standard operating procedures, further emphasizing the need for a single targeting methodology at the operational and higher levels of war.

Chapter Five: THEATER LEVEL OPERATIONAL PUBLICATIONS

Two theater CINC's and their staffs have published guidance for targeting in their theaters. This chapter will examine how the theater level targeting guidance publications use the targeting methodologies discussed in this study. This chapter will show what targeting methodology is relied upon for daily operations at the operational and theater strategic level, where these warfighting CINCs are currently preparing for battle, or engaging in it daily.

US Central Command (USCENTCOM) has incorporated all theater targeting references in a single document titled "USCENTCOM Joint Fires CONOPs". The purpose of the CONOPS is to describe "procedures and responsibilities for the planning, synchronization, deconfliction, and execution of joint fires in the United States Central Command area of responsibility (CENTCOM AOR) by U.S. and Coalition armed forces. It provides guidance for the exercise of authority by component commanders. It describes procedures for the integration and deconfliction of joint fire support operations, weapons systems, targets, intelligence assets, and munitions for members of the Joint Targeting Coordination Board (JTCB)."[62] When describing the publications application, it is clearly stated this publication is authoritative and directive, and "apply to commanders of US and Coalition armed forces involved in *the operational level of warfare* in the CENTCOM AOR. (italics added)"[63] These CONOPS also take precedence over the contents of national service publications and component standard operating procedures

(SOPs). In a nutshell, if targeting is going to occur in CINC/CENTCOMs AOR, it will be in accordance with this publication and this publication alone, and it is specifically designed to function at the operational level of war.

This pub also highlights the importance of synchronization in attaining success in joint fire operations. "The synergistic result is overwhelming combat power applied at the decisive point *in a manner consistent with the CINC's priorities and concept of operations.* Synchronization of joint fires requires the integration of the simultaneous activities of intelligence, air operations, ground operations, maritime operations, and logistics in time and space to achieve the CINCs goals and objectives."[64] Achieving this synchronization is accomplished by the Joint Fires Targeting Process.

The CENTCOM CONOPs focuses entirely on the Joint 6-step process for targeting. At no point in the pub is the D3A process mentioned. This gives credence to the proposition laid down in this paper, that the D3A process, while excellent for use at the tactical level, is not suited for use at the operational level. The steps of Commander's Guidance and Objectives, and Weaponeering Assessment are too critical to the scheme of fires and maneuver at the operational level.

The CENTCOM CONOPS is not the only theater level publication to remove the D3A targeting model form their operational level targeting publication. The Combined Forces/ Republic of Korea (ROK) Targeting Primer and AGOSOP has removed the D3A process also.

ROK-Combined Forces Command/USFK "Deep Ops Primer"

The Korean theater presents a difficult targeting problem for the operational planner. The terrain is significantly different from the CENTCOM theater, and the target sets available are quite different due to the nature of the economy and culture of the people. The joint force commander responsible for the defense of the Korean Peninsula apparently agrees with the CENTCOM commander, as he too has focused the targeting boards to use the Joint 6-step process when developing targets in his theater. The latest revision of the Deep Operations Primer for the Republic of Korea has deleted all references to the D3A process, in favor of the Joint 6-step process.

In chapter II, Targeting Methodology, states that targeting, "...takes into account strategic and operational requirements, capabilities and limitations, and the threat to friendly forces imposed by the target adversary."[65] Synchronization is also mentioned as an key ingredient to targeting within a theater. "Targeting requires deconfliction to prevent duplicative targeting by different forces or different echelons within the same force and to synchronize the attack of those targets with other components of the combined force. An effective and efficient target development process and tasking cycle are essential to plan and execute deep operations." [66] Avoiding the duplication of effort is in keeping with the intent of Goldwater-Nichols, as is synchronizing the fight across all levels. The procedure for accomplishing this is a clear and efficient target development process. According to the Deep Operations Primer, in the Korean theater, that process is the Joint 6-step process. The D3A method is no longer referred to, and the "six step targeting process used by the Combined Targeting Board (CTB) focuses Combined

Forces Command's (CFC's) lethal and non-lethal systems against the nK (North Korean) enemy to achieve the CINCCFC intent."[67]

Chapter 6:CONCLUSION

Is a common source of targeting doctrine for all services critical to the success of a campaign? The quotes cited in this paper from the Persian Gulf war would point to the fact that some difficulties and misunderstandings took place between the services in regards to targeting. During the Falklands War, the Argentineans were "immensely hampered by the poor coordination of their own forces."[68] The lack of a clear commanders intent and objective, as well as a common doctrine for targeting, led to an effort that, despite the heroic efforts of the pilots involved, was not synchronized.

> "...as the war situation worsened, inter-service cooperation deteriorated. The army and air force became increasingly reluctant to accept direction of the war effort from a naval officer, when the navy's ships lay impotent in their ports. The navy seems to have mounted its Super Etendard and other air strikes against the British fleet without consulting or informing the air force of its operations. The navy claimed after the war that it was an obsession with prestige targets that persuaded the air force to attack British warships rather than the much more important transports, although the air force in turn blames the poor intelligence it was receiving, and the need to attack the first visible target after coming in sight of San Carlos."[69]

An authoritative joint targeting doctrine, emphasizing commander's intent and objectives may have solved many of the problems the Argentineans had in the synchronized prosecution of this operational level campaign. One might only speculate on the results of coordinated attacks resulting in the sinking of the British transport ships anchored in the harbor. Perhaps the tide of the war would have shifted upon the sinking

of the Queen Elizabeth II, and the subsequent loss of life associated with the sinking of a transport vessel of her size, not to mention the political ramifications back in the British homeland.

The United States military is currently engaged in several theaters of operations across the globe, in both joint and multi-national force structures. It too has multiple and uncoordinated sources of doctrine for joint targeting operations. A common source of doctrine is critical to the success in meeting the objectives of the commander in any theater.

Unfortunately, there currently exists some confusion in the realm of joint doctrine, namely in the area of Joint targeting methodology. Two methodologies currently exist in joint doctrine for targeting. The Decide, Detect, Deliver, and Assess (D3A) methodology espoused by the Army and Marine Corps is an excellent targeting methodology for use by ground forces in the prosecution of tactical targets, where quick decisions effecting smaller sections of a larger theater of operations. In the second chapter, the discussion of the D3A process pointed out some critical missing information for targeting at the operational level. Commander's guidance is the most critical step in the targeting process, and needs to have a pre-eminent role in deciding the proper targeting plan for the given theater. As always, all targeting is accomplished in support of the Joint Force Commander's Campaign plan. It supports his vision for fighting the campaign in the theater. In this time of predominantly joint military operations, combined with the smallest military since 1939, synchronization of resources is the key to applying the most combat power at the proper place at the proper time. Gen. Marty states, "With some

certainty, we know that all forthcoming operations will include a joint, combined, or coalition force. To achieve our goal of one extended battlefield, we must develop doctrine that facilitates sharing targeting information and executing fires from all accessible means. The key is *synchronization."*[70]

A common targeting methodology that synchronizes the assets with the targets will achieve the JFC's objectives in his theater of operations. Commander's guidance is critical in seeing that this happens. The D3A methodology glosses over the importance of this step, choosing to lump it into the Decide step with several other substeps. In his article appearing in Field Artillery magazine, "Fighting with Fires: The Major Issues", LTC Sammy Coffman states on the doctrinal issues, "The relationship of Commander's Intent to the development of an integrated concept of the operation is not well defined."[71] While true in the D3A methodology, the relationship is clearly delineated in the Joint 6-step process. It is in the critical step of Commander's Intent and Objectives that the D3A process falls short in supporting the JFC's operational and strategic objectives in his theater. The other key area it also falls short in is in the area of weaponeering.

As discussed earlier, the function of weaponeering is critical in allocation of the proper asset to strike the selected target, which supports economy of force. A target may be struck by a myriad of weapons systems, but a thorough analysis of the damage required to achieve the results desired by the commander will show the ***best*** weapon system to use. This is critical due to current military force structure, smallest since 1939, as well as the desire to eliminate collateral damage around certain targets. A thorough weaponeeering analysis of the target list using available resources like JMEMs will

provide the targeting staff with the necessary information to allocate forces properly. The weaponeering process is lengthy and complex, but critical to the proper allocation of assets in a given theater. At the tactical level, weaponeering is not as critical, due to the limited types of assets available organically at that level. It is at the operational level, in the joint environment, where numerous assets are available to choose from for allocation purposes. That is the reason why weaponeeering has to be a separate step of the targeting process, as it is in the Joint 6-step process.

Given these two identified shortcomings, it is clear that current Joint doctrine is not in keeping with the intent of the Goldwater-Nichols legislation which was partly designed to streamline military operations and planning and to eliminate duplication of effort. The appearance of the two targeting methodologies in joint doctrine gives credence to the argument that the Army and Marine Corps can use the D3A methodology to develop their targeting products in the operational environment, while other services use the Joint 6 step process. "Another major shortcoming is the doctrine's failure to provide a common methodology for targeting methods by all the services."[72] This causes duplication of effort, and does not streamline the targeting process. Currently, this has been recognized in two warfighting CINC's theaters. In CENTCOM and in the Republic of Korea, the ONLY targeting methodology presented in the operational level theater targeting publications is the Joint 6-step process. This forces all service components to use the same targeting methodology, thus eliminating duplication of effort, and streamlines the process. This in turn supports achieving the Commander's objectives and intent in his theater, which is the sole purpose of targeting.

What can be done to fix this problem? Joint Publication 3-60, currently in draft status, is being designed to be the single point source for targeting at the operational level. It is designed to streamline and standardize the process in all theaters and on all staffs. Once completed, all targeting publications discussed in this paper must align with Joint Pub 3-60 and the theater level targeting publications in order to standardize targeting methodologies at the operational level. Only in doing this will targeting staff be able to synchronize their efforts to achieve the commander's intent and objectives in any given theater.

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[36] Joint Pub 3-0, Doctrine for Joint Operations, 1 February 1995, p. III-25.

[37] Deep Ops Primer, p.7.

[38] ALSA, p.1-4.

[39] ibid, p. 1-5.

[40] ibid, p. 1-6.

[41] ibid, p. 1-7.

[42] Deep Ops Primer, p. 8.

[43] ALSA, p. 1-8.

[44] Joint Pub 3-0, p. iv-16.

[45] ALSA, p.1-9.

[46] CFC PUB 3-1. Deep Operations- Korea: (Draft) ROK-US Combined Forces Command, May 1999, p. 9.

[47] ibid.

[48] ALSA, p.1-10.

[49] ibid.

[50] Personal experience of Major Joel S. Westa while serving as Chief, Day Operations Planning Team, 1708th Provisional Bomb Wing, Jeddah New, Saudi Arabia, Nov 1990 – March 1991. Much reference is made to BDA difficulties, with the best analysis available in the Gulf War Air Power Surveys.

[51] Joint Pub 3-09, Doctrine for Joint Fire Support, 12 May 1998, p.i.

[52] ibid.

[53] ibid, p. vi.

[54] ibid, p. x.

[55] Joint Pub 3-56.1. Command and Control for Joint Air Operations. [JEL]1997, p.iv-7.

[56] ALSA, p.i.

[57] ibid.

[58] ibid, p. viii.

[59] Joint Doctrine Working Group Minutes. Joint Publication 3-60. April 1999.

[60] ibid.

[61] ibid.

[62] USCENTCOM Joint Fires Concept of Operations. US CENTCOM, April 1999, p. 1.

[63] ibid.

[64] ibid, p. 2.

[65] Deep Ops Primer, p.4.

[66] ibid.

[67] ibid, p. 6.

[68] Max Hastings, and Simon Jenkins. The Battle for the Falklands. New York: W.W. Norton, 1983, p. 218.

[69] ibid.

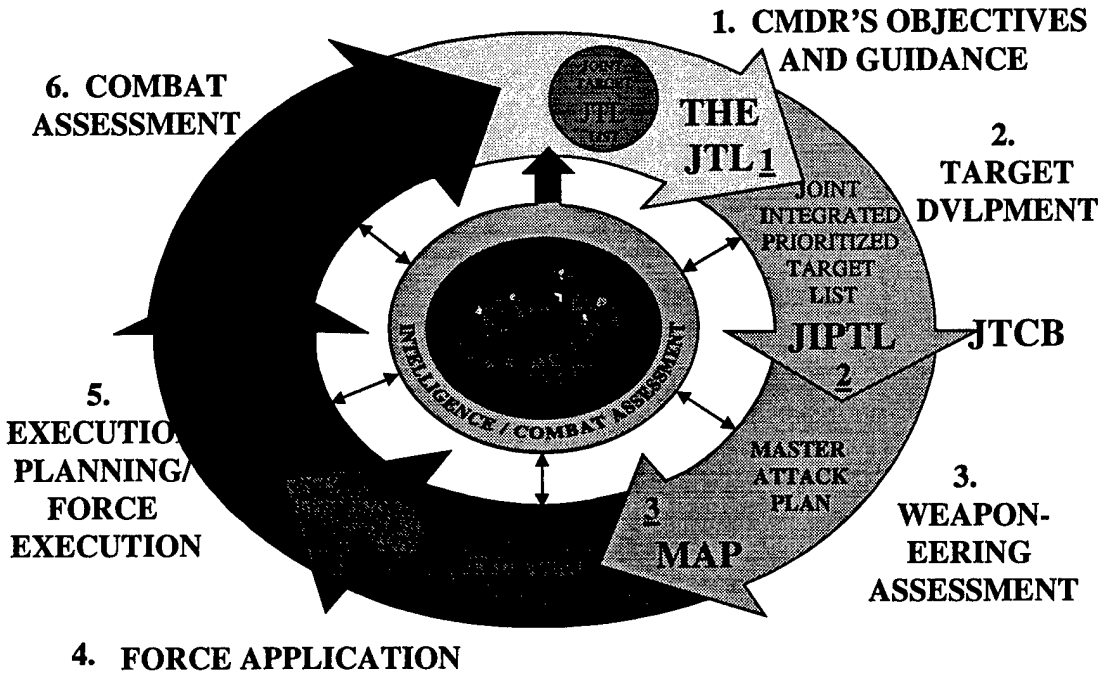
[70] Fred F. Marty, MajGen. "Synchronizing Fires in Joint and Combined Forces". Field Artillery. Feb. 1993, p. 1.

[71] Sammy L. Coffman, LTC. "Fighting with Fires: The Major Issues." Field Artillery. June1992, p. 13.

[72] Seay, p.13.

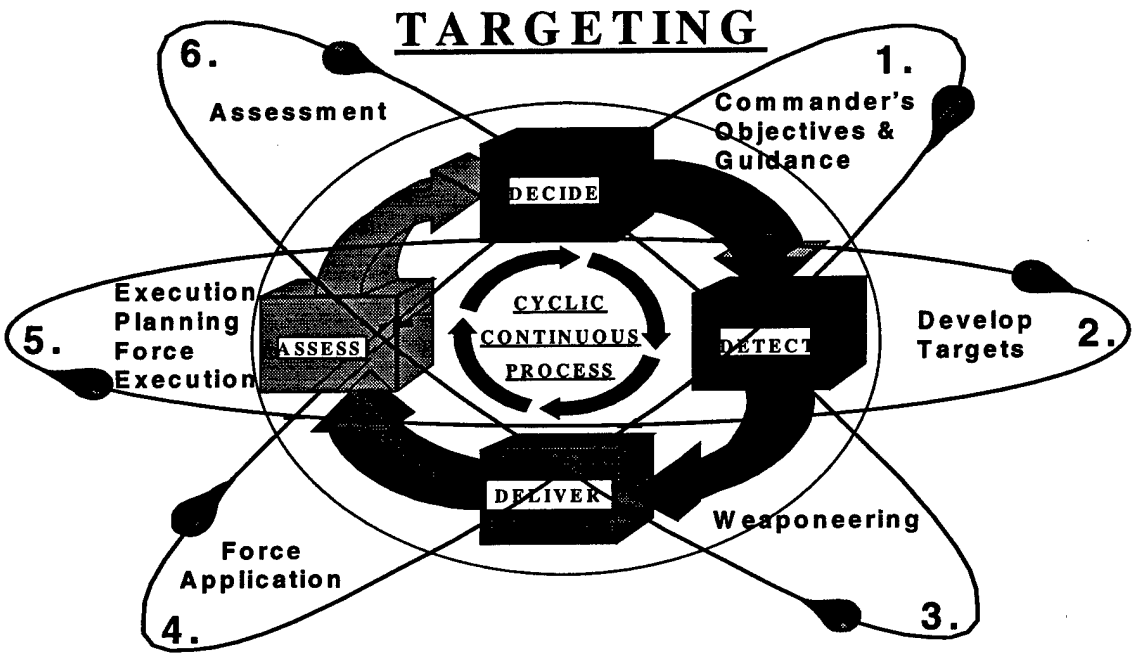
APPENDIX 1

This graphic illustrates the cyclic nature of the Joint 6-step targeting methodology and the products of each step. Graphic courtesy of Lt Col Steven McKay, USAF Doctrine Center, Ft Leavenworth, KS.



APPENDIX 2

This graphic illustrated the relationship of the D3A methodology when compared to the Joint 6-step process. Graphic courtesy of LtCol Steven McKay, USAF Doctrine Center, Ft Leavenworth, KS.



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