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**MISSION TYPE ORDERS AND
JOINT AIR EMPLOYMENT DOCTRINE**

BY

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ABSTRACT

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The struggle between air and land force commanders to control and shape the employment of airpower is not a new one. The central role of air in the overwhelming coalition military success in the Gulf War intensified this debate, especially in regards to air interdiction in support of land maneuver warfare. This report explores the origins and nature of these "airland debates" and examines how current Joint Doctrine has responded. It argues that the adoption of Mission Type Orders, as a new "framework" for airland communication and decision-making at the Joint Force Commander level, will produce the trust and confidence necessary for future airland victory. Finally, it proposes changes to joint doctrine to facilitate the transition to Mission Type Orders in the areas of joint air apportionment, targeting and battlespace control.

INTRODUCTION

Lieutenant General (USA Ret) John Cushman, in his concise 1993 book, Thoughts for Joint Commanders, proposed a new framework for the relationship between air and land commanders based on the concept of mission assignments.¹ Missions, or operational-level effects expressed as Mission Type Orders (MTOs), are not new to soldiers, sailors, airmen or marines. However, at the senior leadership levels of the 1991 Gulf War, targets instead of operational effects, became the "coin of the realm" for airland planning. This narrow focus on targeting may have inadvertently fed the parochial mistrust and fears of air and land commanders alike.

Despite the overwhelming coalition military victory in operation Desert Storm, critics have focused attention on airpower's support, or perceived non-support, of coalition land forces. Official studies commissioned by the Air Force and Army, and several critically acclaimed postwar books and articles, focused on various aspects of the breakdown in communication between land and air commanders. In 1994 the Department of Defense (DOD) wrote joint doctrine for air component support of land warfare operations, ostensibly incorporating the lessons of the war. Yet, careful examination of joint doctrine reveals a codification of the doctrinal status-quo at war's end, not lessons learned. This study offers the MTO concept as a framework for an improved airland wartime dialogue and suggests

specific doctrinal changes to ensure the lessons of Desert Storm are not lost.

This study will answer several questions. Just what are MTOs? What are the real differences between air and land commanders over airpower employment, the so called "airland debates"? Does joint doctrine reflect the real lessons of the Gulf War or simply the status-quo at war's end? Would the adoption of the MTO framework by air and land commanders overcome parochial mistrust and create cleaner lines of communication and authority for joint air and land forces? Finally, it proposes the MTO concept, not as a "silver bullet" to solve all airland disagreement, but as a framework upon which effective inter-service trust, communication and doctrine can be built. And it will outline specific changes to joint doctrine, in the areas of apportionment, targeting and battlespace coordination, that will benefit from MTO adoption. But first, in order to fully understand the problem, it is necessary to understand the nature of the relationship between air and land commanders.

AIRMEN AND SOLDIERS

"'Khalid, where are you?' Horner asked incredulously. Khalid explained that he was near Khafji visiting the Saudi forces when the Iraqis attacked and (Khalid) demanded B-52 strikes. 'Don't tell me how to do the job. Tell me what you want done,' Horner replied."²

This exchange between Prince Khalid, commander of Arab Forces, and Lt. Gen. Charles Horner, Joint Forces Air Component

Commander (JFACC), during the battle of Khafji speaks eloquently to the relationship between ground and air commanders. Both are masters of the their operational art and both have strongly held beliefs on how to apply it. The framework within which they communicate their needs, desires and decisions to one another is vital to the success or failure of their joint mission.

Historically, the doctrinal tenets of "centralized control" and "decentralized execution"³ are the central framework within which airmen think about the employment of airpower. Recent joint doctrine dilutes the terms centralized control to "centralized planning," yet the central concept is essentially unchanged.⁴ The second edition of the JFACC Primer, printed by the Air Force just prior to the publishing of Joint Pub 3-56-1, Command and Control for Joint Air Operations, clearly defines the JFACC relationship in terms of operational **control** (OPCON) and tactical **control** (TACON) of theater air forces.⁵ The speed, range, flexibility, precision and lethality of airpower define its role as a vital theater asset.⁶ To an airman, airpower is an independent force capable of influencing theater objectives across the spectrum of theater operations. A single airplane can perform several different missions in widely separated areas of a theater in the space of a few hours, or at most a few days. When massed, air (including missiles and to a lesser extent helicopters) can strike hard at the enemy as deep as his capital city and beyond, or as close as his Forward Line of Troops (FLOT), and all points in between. Fragmentation of airpower,

that ties portions of it to specific missions or geographic areas, is the anathema of thinking airmen. For air to exploit its inherent theater-wide flexibility, it must be controlled at theater level. Thus, "top down" planning by an airman is considered the key to the successful application of airpower.⁷ However, this view is not universally shared.

The land commander views airpower through a different lense. FM-100-7, Decisive Force, The Army in Theater Operations states:

"The operational-level (land force) commander is the primary coordinator and integrator of joint capabilities during decisive land operations. The operational-level commander synchronizes the actions of... air interdiction, close air support (CAS)... and other joint and national assets."⁸

The land commander views theater operations as a series of preparatory and supporting phases culminating in the decisive use of landpower. Supported by the entire spectrum of theater assets, including air, the land commander synchronizes all the assets at his disposal to "shape the battlefield" for his scheme of maneuver.⁹ Thus the timing and targeting of joint fires (to include air interdiction and CAS) is primarily the responsibility of the land commander.¹⁰ The doctrinal conflict is clear but there are ways to bring air and land closer together.

Joint doctrine has already created one framework in which both air and land coexist. The concept of *supported* and *supporting* commanders has in most cases answered the question, who's in charge? The land commander is normally the supported

commander for air interdiction within his area of operation (AO). Working closely with supporting commanders (very often the JFACC) the land commander obtains the supporting fires required to achieve the mission assigned to him by the JFC.¹¹ However, the land commander can also be a supporting commander.

During the Gulf War, the JFACC, was the supported commander for the theater missions of air superiority, strategic attack, and interdiction. On the opening night of the war, the JFACC successfully employed attack helicopters from supporting Army land commanders to knock out key Iraqi radar sites.¹² Numerous examples of this organizational framework helped operation Desert Storm become one of the most joint combat operations in history. However, the day to day coordination of airland operations, as will be seen, did not go as smoothly. Another framework is needed to shape the needs, desires and decisions of commanders in future wars. That framework is Mission Type Orders.

AUFTRAGSTAKTIC

Mission Type Orders are not new to the Air Force or the Army. The concept of Auftragstaktic (mission oriented orders) was developed by the Prussian Army in the late 1800s and officially adopted by the U.S. Army as a part of its Airland Battle doctrine in 1982.¹³

Mission Type Orders, while not directly addressed in current Air Force doctrine, have nevertheless been employed with

success by the USAF from World War II to Desert Storm.¹⁴ Gen George C. Kenney, Gen Douglas MacArthur's Pacific Air Commander, employed the concept with great success in New Guinea and the Solomons during World War II. Due to difficulties of communicating over a far-flung theater of operation, Kenney created a series of independent "Air Task Forces" comprised of bomber, fighter and support units to achieve specific air objectives. Kenney communicated his intent, objectives and timing to each task force commander, leaving the details of how to accomplish the mission to his subordinate commander.¹⁵

MTO was used again in Joint Task Force Proven Force, the Turkey-based portion of the Desert Storm air war. MTOs were employed within the framework of the CENTCOM centralized Air Tasking Order (ATO). Proven Force was essentially a modern version of Kenney's Air Task Forces. It was free to operate within its area of operation (north of Baghdad) to achieve theater objectives and accomplish JFACC designated air tasks, which it did with distinction.¹⁶ If both soldiers and airmen have employed MTOs, just what are they?

"Mission Type Order 1. Order issued to a lower unit that includes the accomplishment of the total mission assigned to the higher headquarters. 2. Order issued to a unit to perform a mission without specifying how it is to be accomplished."

Joint Pub 3-0, Doctrine for Joint Operations¹⁷

The key to understanding MTOs lies in the second part of the definition. Gen Horner's retort to Prince Khalid, "Don't tell me

how to do the job. Tell me what you want done,"¹⁸ is a prime example of MTO logic. Once assigned the what, where and by when of a mission, the commander decides the best method (how) to accomplish it. The synergy of many combined supporting and supported missions achieves theater success. To an airman, the how often involves the quantity, priority and location of targets. The discussion that follows details the disputes over targeting policy and priorities that plagued the JFACC and land commanders throughout the war.

"A CLASH OF CULTURES"¹⁹

Operation DESERT STORM was the first actual combat test of the JFACC concept. Proposed in 1985 by CINCEUR under the auspices of the Joint Doctrine Pilot Program, it was included in JCS Publication 26, Joint Doctrine for Theater Counterair Operations in February of 1986. The JFACC provided for a single theater air commander to provide "centralized control and decentralized execution" of air assets in the areas of defensive and offensive counterair operations.²⁰ JCS Publication 12, Tactical Command and Control Planning Guidance and Procedures for Joint Operations, published later that year, further defined the JFACC's role as recommending theater air apportionment to the Joint Force Commander. It also established the ATO as the single joint planning and execution document for theater air assets.²¹ By the fall of 1990, CENTCOM adopted the JFACC concept and

CINCCENT empowered Lt Gen Charles Horner to direct the entire Desert Storm air campaign.

In parallel with the development of the JFACC concept, two distinct views of airpower employment were developing. The U.S. Army's Airland Battle concept, developed in coordination with the USAF Tactical Air Command, envisioned airpower as a force which shaped the battlefield and reduced enemy forces with air interdiction prior to their commitment to the close battle.²² The concept of Battlefield Air Interdiction (BAI), grew out of this doctrine. BAI signified to land commanders that they would synchronize (coordinate or control) air in support of their scheme of maneuver.²³ The Air Force, because of disagreement over the issue of control of air assets, never officially adopted the BAI concept. However, it flourished in the North Atlantic Treaty Organization (NATO), from which Lt Gen Fred Frank's VII Corps deployed to Saudi Arabia in the Fall of 1990. VII Corps later gained notoriety as a key part of Gen Norman Schwarzkopf's famous "Hail Mary" attack during Desert Storm's "100 Hour" ground war. Even as VII Corps deployed, a more strategic view of airpower was emerging.

The Air Force doctrine of strategic attack is a relatively old one dating back to the theories of Douhet and Mitchell. Col John Warden, a Pentagon planner, developed the Instant Thunder strategic air attack plan. Based on Warden's 1988 book The Air Campaign, Instant Thunder created additional tension between the air and land components. As initially written, Instant Thunder

downgraded the threat of Iraq's land forces and focused on attacking enemy centers of gravity. Warden supposed that his plan would bring Iraq to its knees without a long and bloody ground war.²⁴ These competing views led to mistrust, miscommunication, and as the official U.S. Army study on the Gulf War put it, "a clash of cultures!"²⁵ Nowhere was this clash more evident than in the area of JFC air apportionment.

APPORTIONMENT

"Apportionment (air). The determination and assignment of the total expected effort by percentage and/or priority that should be devoted to the various air operations and/or geographic areas for a given period of time." **Joint Pub 3-56.1, Command and Control of Joint Air Operations**²⁶

Land commanders, most vocally Lt Gen Fred Franks VII Corps commander, claimed the JFACC was not responsive to the needs of Corps commanders for battlefield preparation prior to the beginning of the ground war. If true, was apportionment skewed unfairly toward the strategic air campaign at the expense of the ground war?²⁷ The answer may not rest as much in the mathematics of the CINC's apportionment decisions, as in how the question was framed. The JFACC recommended daily air apportionment to CINCCENT based on a list of target categories which eventually numbered fifteen in all (two of which were Iraqi ground forces).

Desert Storm Apportionment Categories²⁸

1. Leadership Command Facilities
2. Electricity Production
3. Telecom and Command, Control, and Communication Nodes
4. Strategic Integrated Air Defense System
5. Air Forces and Airfields
6. Nuclear, Biological and Chemical Weapons Capability
7. SCUD Missile Capability
8. Naval Forces and Ports
9. Oil Refining and Storage
10. Railroads and Bridges
11. Military Storage and Production
12. Republican Guard Forces
13. Iraq's Army in Kuwait
14. Surface to Air Missiles in the KTO
15. Breaching Sites

Gen Horner briefed the level of effort (in sorties) for each target category to be struck. Gen Schwarzkopf then had the option of accepting the apportionment recommendation or changing the level of effort to reflect his priorities. And he often made changes to the apportionment recommendation. Additionally, Gen Schwarzkopf's decision to designate himself as the Joint Force Land Component Commander (JFLCC) complicated the situation. During the battlefield preparation phase, Gen Schwarzkopf asked his Corps commanders to nominate targets for battlefield preparation and directed the JFACC to pay increased attention to those nominations. However, he effectively retained control of BAI at the CINC level.²⁹ For example, the CINC withheld targeting Iraqi forces in front of VII Corps prior to G Day (to

avoid tipping off Iraq to the main thrust of the "Hail Mary" plan) despite a significant number of VII Corps target nominations in the area. Additionally, he decided to withhold the targeting of Iraqi divisions assessed below 50 percent in strength, a decision unknown to his Corps commanders until after the war.³⁰ As a result, Gen Schwarzkopf's Corps commanders did not receive the air support they requested and directed their resultant frustration squarely at the JFACC.

The JFACC, the supported commander for missions associated with eleven of the fifteen target sets, worked directly with the CINC on a daily basis, adjusting apportionment to reflect the CINC's priorities. A review of the statistical data shows, despite unsubstantiated fears of JFACC bias toward strategic attack, the preponderance of the air effort was directed squarely at Iraq's ground forces.

Desert Storm Coalition Strikes Sorties by Target Category ³¹	
Leadership	- 260
Electric Power	--280
Naval Targets	---370
Oil	--- 540
Telecom/C3	--- 580
IADS	--- 630
Military Industry	---- 970
NBC Capability	---- 990
LOCs	----- 1,170
SAMS	----- 1,370
Scuds	----- 1,460
Airfields	----- 2,996
Ground Forces	-----23,430

Admittedly, the extensive use of Precision Guided Munitions

(PGMs) against strategic targets skews the comparison to a degree. However, the preponderance of air effort was still clearly directed against Iraq's army.³² So why, in view of the overwhelming quantity of air directed at the enemy, was there so much discontent?

While Schwarzkopf specifically attempted to avoid the Vietnam "body count" syndrome, a "target count" mentality grew within the Army (ARCENT) staff.³³ Since apportionment reflected the percentage of effort against the specific target sets, the measure of merit for ARCENT planners became number of targets nominated vs the number of those targets struck by the JFACC. The combination of perceived competing priorities between the strategic and interdiction campaign, the lack of agreement between the CINC and his Corps Commanders, and inaccurate target nominations by ARCENT (based on two to three day old intelligence information) resulted in less than 50% of ARCENT nominated targets being included in the daily ATO.³⁴ Gen Franks summarized Army frustration:

"It was the CINC's decision where air was applied in the theater. But, of the air that was applied in that area of operations where I was given a certain mission, then I wanted a strong voice in what air was to do.... It was the prioritization of air effort that was available in that particular sector."³⁵

Gen Franks was not as concerned with the percentage of air apportioned, but with the effect it achieved in his area of operation and in support of his mission.³⁶ This is why BAI is so attractive to the land commander. It allows him to directly

shape the battlefield to support his mission objectives. Short of BAI, is there a better way?

Lt Gen Cushman describes a joint organization and communication structure in which effects, not sorties or target nominations, drive the airland relationship.³⁷ The land commander, as the supported commander for air interdiction in his AO, specifies the desired effect he wants air to achieve. Or as Gen Franks put it, "what air was to do." Then, the JFACC identifies how it will be done.³⁸

The JFACC prioritizes these effects (air objectives) and supporting target sets (air tasks), expressed as MTOs, and forwards his recommended priority to the JFC for apportionment. Air objectives that can not be supported in the desired time frame are identified by the JFACC to the CINC. The CINC will either reapportion the air effort or delay the supported ground operations until support is available. Instead of apportioning a percentage of air to attack a target set that may not fully support the land commander's scheme of maneuver, MTO apportioned air creates the operational effects required by the land commander to achieve success. And equally important, ***the CINC, JFACC, and all land commanders down to Corps level will see a clear relationship between air objectives and the joint force mission.*** The CINC apportions air to MTOs that describe combinations of supported and supporting tasks, not individual targets. If adopted, structures to manage air targeting at the CINC level will become redundant.

TARGETING

"The land formation commander may well, and usually should, define the specific effect to be achieved. But there can be only one answer as to who defines the target itself -- the airman." **Lt Gen John Cushman**³⁹

As a result of the "clash" between the JFACC and ground commanders, Gen Schwarzkopf created a Joint Targeting Coordination Board (JTCB) under CENTCOM Deputy CINC, Lt Gen Calvin Waller. Schwarzkopf had initially rejected the idea, preferring his commanders "work their differences out among themselves," but finally succumbed to pressure from his Corps commanders to create an advisory board on targeting **above** the JFACC level.⁴⁰ Did it work? Will it work in the future? Is there a better way?

The official U.S. Army study of the war proclaimed the JTCB "at best a partial solution."⁴¹ While it increased Army visibility in targeting, the JFC continued to personally shape the targeting process. Additionally, unexpected pressures on the targeting process from the need to hunt Iraqi Scud missiles and the controversy over the accuracy of Bomb Damage Assessment (BDA) further diluted and confused the process. By war's end only 1267 of 3067 targets nominated by ARCENT made it into the ATO.⁴²

The Gulf War Air Power Survey put it another way:

"Although a Joint Target Coordination Board formally existed, its real authority was limited. In practice, most critical recommendations and decisions about the apportionment and allocation of airpower were made by the theater commander, (and) the JFACC."⁴³

The report recognized the role of the JFACC in determining how best to achieve the effects desired by ground commanders. The study concluded, "the result was probably a more coherent application of air power than would have resulted from the compromises required by a stronger joint targeting authority."⁴⁴

Gordon and Trainor, in The Generals' War, concluded, "Schwarzkopf's targeting board did not resolve the situation, it simply imported it to a higher level."⁴⁵ Yet despite the failure of the JTTCB, Gordon and Trainor noted, "(air) devastated the Iraqi army. By depriving it of any help from the Iraqi Air Force, forcing it to dig in, eliminating the prospect of a mobile defense, and knocking out much of the Iraqi armor and artillery, the air campaign had all but won the war."⁴⁶ Certainly, the overwhelming domination by allied air power is responsible for the quick victory, but almost as certain, the JTTCB contributed little to this success. So why the enthusiasm for the JTTCB in current joint doctrine?

"Typically, the JFC organizes a Joint Targeting Coordination Board" Joint Pub 3-56.1, Command and Control for Joint Air Operations⁴⁷

Army Field Manual 100-7, the Army's theater doctrine, provides an answer. It codifies the target nomination process as the desired way for the senior army commander to shape the battlefield, "by nominating targets that he cannot strike with these (organic and allocated) assets to the JTCB. He uses the targeting process to shape the battlespace and synchronize fire support, interdiction and maneuver."⁴⁸ Thus, the JTCB is used as a lever to gain control of the battlefield preparation process, much as BAI placed direct control in the land commander's hands. Is there a better way?

"The joint establishment seems to be using an inappropriate correction (**the JTCB**) for what was perceived (unjustly to a degree) in the Gulf War as arbitrary and unenlightened decisions by an Air Force JFACC"

Lt Gen John Cushman⁴⁹

Appropriately, Lt Gen Franks, one of the most vocal critics of the targeting process during the war, points to a better way. In a 1994 interview he expressed a preference for more "mission assignments."⁵⁰ Instead of specifying individual targets, as the supported commander he would propose missions (expressed as MTOs) to achieve desired effects. The MTO would include effects to be achieved and timing. Platforms, weapons and specific targets would be the province of the air commander. Mismatches in air capabilities and timing that would hamper or delay the intended ground maneuver would be handled through direct airland commander dialogue and when priorities conflict through the JFC's

apportionment decision.⁵¹ Franks points to the Iraqi 52nd Armored Brigade as an example. His admonishment on January 12, 1991 to make the Iraqi 52nd Armored Brigade "go away" before G-Day became something of a minor legend. It clearly illustrated his desire to specify the effect and timing, and let the airmen decide how to accomplish it. As a result of a furious and focused air attack, the 52nd Armored began the ground war with only 10% of its tracked vehicles and barely 500 personnel. Air accomplished Franks' MTO and rendered the 52nd ineffective before VII Corps began its advance.⁵² Gen Franks and thinking airmen agree this is the preferred method of joint operation.

The airman's view of targeting is summed up in the following quote from the JFACC Primer:

"The one perspective all component commanders can share is the JFC's view. Coherent and effective air targeting doesn't require bureaucracies or new investment; it just takes clear communication between the JFC and the components, free dialogue among the components and effective component liaison on the JFACC's staff."⁵³

FM 100-7 supports both the airman's view, and Gen Franks, when it states:

"The often preferred method is for the land commander to specify the operational-level effects he intends the interdiction to achieve."⁵⁴

This shift from target-focused to effects-focused apportionment and targeting will provide the clear dialogue so eloquently expressed by Gen Franks' "go-away brigade" and so urgently desired by thinking airmen. However, one last thorny area that

MTOs may clarify remains, namely battlespace control.

FIRE SUPPORT COORDINATION LINE (FSCL)

"After the war, it became clear that the positioning of the boundary (FSCL) was one of the most important miscalculations of the war.... As a result much of the Iraqi army was shielded from the sort of punishing bombing raids it endured during Khafji and its retreat from Kuwait City." **Gordon and Trainor, The Generals' War**⁵⁵

Current joint doctrine defines the FSCL as "a line established by the appropriate land or amphibious commander to ensure coordination of fire (primarily air or naval) not under the commander's control but which may affect current tactical operations."⁵⁶ In other words, the FSCL is a line forward of the FLOT behind which the land commander has total control of all targeting to support his close maneuver. To an airman, this calls for positive control measures to avoid fratricide such as Forward Air Controllers (FACs), and generally fits the definition of Close Air Support (CAS). On the evening of 27 February 1991 the FSCL was pushed deep into Iraq, north of the Euphrates River. This battlespace was reserved for XVIII Corps attack helicopters to conduct deep battle operations well forward of advancing land forces. However, the XVIII Corps advance was slowed.⁵⁷ In the meantime, theater fixed wing assets were restricted from massed attack on enemy armor concentrations along the border by the more complex communication and coordination required behind the FSCL. The requirement to coordinate all attacks behind the FSCL with

XVIII Corps (which was 25 to 50 miles behind the FSCL) caused available air to sit idle as enemy targets ran north for cover. The result, a significant portion of Iraq's Republican Guards and a large number of their remaining armor and artillery pieces escaped unharmed.

The real issue highlighted by the FSCL debate is who controls the deep battle, more specifically the battle beyond the FSCL. In the past only the JFC's air assets had the range and firepower to fight deep. However, the Airland Battle concept of BAI gave land commanders an expectation that they would direct and control air beyond the FSCL. In fact, the development of the Apache attack helicopter and the Army Tactical Missile System (ATACM) gives the ground commander a limited deep attack capability. However, with a total Army purchase of only 2000 ATACMs and Army attack aviation's multiple roles of maneuver, CAS and Deep Battle, air will continue to be the predominate source of deep fires.⁵⁸ In fact, airpower's ability to devastate enemy mass formations and armor have led many to suggest that ground maneuver should support deep air interdiction by causing the enemy to abandon cover and concealment as it maneuvers to engage. Yet Army doctrine insists the land commander control deep targeting beyond the FSCL. FM 100-7 states, "Planning for the interdiction operation and target prioritization must be based on the ground commander's concept of operation."⁵⁹

Airmen take the view that the JFACC and the Special Operations Component Commander (SOCC) have the most forces at

risk beyond the FSCL and the JFACC's C3I system is "uniquely capable of planning and controlling operations in territory occupied by hostile forces." Airmen argue that the FSCL, and with it responsibility for synchronizing the mission, should be placed where the land commander's ability to see and strike deep is curtailed and air becomes the "greatest threat to the enemy."⁶⁰ Are these competing viewpoints synchronized in current Joint Doctrine?

The answer is no! Instead, Joint Pub 3-0 adds the concept of a forward boundary to the FSCL which only muddies the already muddy water. A forward boundary of the land commander's area of operation (AO) is placed beyond the FSCL. Joint Doctrine continues, "The synchronization of operations on either side of the FSCL is the responsibility of the establishing commander out to the limits of the land or amphibious force boundary."⁶¹ If this sounds suspiciously like BAI rising from the grave, it is. No one argues with the land commander's need to shape the battlefield in advance of his maneuver. However, designating deeper boundaries requiring more complex coordination limits the flexibility of airpower, and may recreate the same scenario that let the Republican Guards escape at the end of the Gulf War. Is there a better way?

U.S. Forces Korea developed a twist on the forward boundary that establishes a logical environment for communication and ultimate victory. The Deep Battle Synchronization Line (DBSL) places responsibility for the deep battle, defined as "all

operations beyond the immediate vicinity of friendly ground forces," in the hands of the JFACC.⁶² While it assigns deep battle to the airman, the land commander is required to specify the desired effects for air interdiction between the FSCL and the DBSL.

The key to synchronizing this relationship is the JFC's apportionment decision. The land commander proposes which operational effects beyond the FSCL support his scheme of maneuver and the JFACC recommends apportionment of the air to accomplish the objectives and supporting tasks required to produce those desired effects. The JFACC synchronizes the interdiction effort beyond the FSCL, maximizing the inherent flexibility of airpower, and the land component receives support for its maneuver scheme, not just a percentage of a target nomination. So just how should MTOs fit into the apportionment, targeting and battlespace control doctrinal matrix?

MISSION TYPE ORDERS IN ACTION

"JFCs issue prioritized Mission Type Orders to subordinate commanders and define command relationships to facilitate mission accomplishment consistent with operational objectives"

Joint Pub 3-0, Doctrine for Joint Operations⁶³

The JFC issues his concept and theater objectives, in accordance with joint doctrine, as a series of prioritized Mission Type Orders to his air, sea and land commanders.

JFC MISSION ASSIGNMENTS EXPRESSED AS MISSION TYPE ORDERS

The JFLCC (who) will commence land operations (what) no later than D-Day (when) northward from the Kuwait border to engage and defeat the Iraqi army occupying Kuwait in order to eject them from Kuwait and restore its sovereignty (why).

The JFACC and JFLCC continue the process by defining the objectives and tasks required to achieve the JFC's objectives, expressing them as Mission Type Orders.

JFLCC LAND OBJECTIVE EXPRESSED AS MISSION TYPE ORDERS

VII Corps (who) will begin offensive operations into Iraq to the west of Kuwait (what) no later than D-Day (when) to flank, engage and destroy Republican Guard forces based in northern Kuwait (why).

Cascading down to Corps level, air and land force planners prioritize those operational effects required to support the Corps scheme of maneuver and express them in the form of prioritized Mission Type Orders.

CORPS COMMANDER'S DESIRED EFFECTS EXPRESSED AS MISSION TYPE ORDERS (FOR JFC APPORTIONMENT)

The JFACC (who) will interdict and render ineffective Iraqi artillery capability up to 50 kilometers north of the VII Corps breach (what) between D-5 and D-1 (when) to support the VII Corps breaching operation on D-Day (why).

JFACC planners identify additional tasks required to support the Corps mission and draft them as Mission Type Orders. While this process is ongoing air planners are identifying sortie

capabilities and specific units to determine the feasibility of the Corps objective and associated air tasks.

**JFACC AIR TASKS TO SUPPORT CORPS DESIRED EFFECTS
EXPRESSED AS MISSION TYPE ORDERS**

The JFACC (who) will suppress Iraqi Surface to Air missile capability up to 100 kilometers north of the proposed VII Corps breach (what) no later than D-5 (when) to allow destruction of Iraqi artillery capability and protect allied CAS efforts (why).

The final result should be a list of prioritized MTOs specifying the operational effects to be achieved and the level of air effort required to achieve them.

At the functional level the JFACC and the JFLCC agree to the priority and synchronization of airland operations and the JFACC presents the result to the JFC as prioritized, apportioned air objectives and tasks expressed as MTOs. Based on the recommendation of the JFACC, the JFC chooses a course of action comprised of a collection of supported and supporting air tasks expressed as MTOs. JFC prioritization takes place at the macro level. The JFC decides which theater and land force objectives are supportable by the available air. The JFACC assesses which air objectives can be achieved by the most efficient use of available air assets. While the CINC could have access to the overall percentage of effort going into a specific target set the data would have less meaning than it did in the Gulf War. Success or failure will again rest where it should, in the hands of capable commanders who share the JFC's intent and carry out

his prioritized orders through exercise of their operational arts. In this context the question of a CINC-level JTCB becomes a moot point.

Below the JFACC and JFLCC level, their joint staffs act as a working JTCB helping their respective commanders define the desired effects and the level of effort against designated target sets required to achieve specific objectives. Detailed studies on both sides of the JTCB issue recommend this component level integration of the JTCB into the planning process.⁶⁴

Target nomination and prioritization would continue to play an important role but in the context of supporting MTOs. Gulf War air planners in the Kuwait Theater of Operation (KTO) received a prioritized target list from the JTCB but no real apportionment guidance to guide the level of effort (measured in number of sorties) for allocation to each target set.⁶⁵ The result was confusion, mistrust and disunity of effort. Additionally, targeting of highly mobile battlefield targets, does not benefit from a relatively static target-list driven process. However, with objectives and tasks prioritized at the CINC and Component Commander level, a JFACC-led JTCB might prioritize the nominated targets into target sets by specific task. Both air and land components would then have a clear understanding of which targets supported each specific objective. *At the JFACC/JFLCC level the functional commanders form a de-facto macro level Joint Targeting Oversight Board by guiding the JFC's choice of air objectives and tasks for apportionment.*

At the same time the argument over who controls the area between the FSCL and the forward boundary loses meaning.

The commander charged with executing the Mission Type Order, be it a supporting or supported task, should control the particular piece of battlespace in which it takes place. If two missions occur in the same battlespace, such as CAS and land maneuver, the supported commander (in this case the land commander) controls the battlespace. Beyond the FSCL, in the area of future land maneuver, the commander who is supplying the preponderance of force and producing the preponderance of effects (the air commander in most situations) should control the battlespace. When the land forces advance, the FSCL advances appropriately. Beyond the new FSCL, both air and land commanders continue to express desired operational effects as MTOs for JFC apportionment, and the commander primarily tasked to carry out the apportioned MTOs coordinates the battle.

CONCLUSIONS AND RECOMMENDATIONS

The Desert Storm airland debates were about lack of communication and disunity of effort, not about lack of air power. However, the next major war will be fought with air and land components shrunk by post cold war force reductions. Joint and service doctrine should reflect a detailed analysis of the real lessons of the Gulf War and the new realities of today's force structure. In the area of airland coordination and

cooperation, current joint doctrine does not.

Mission Type Orders are not a silver bullet, but their adoption in the apportionment process will provide a new framework for communication and understanding required between the air and land components of the joint team. That framework will have a positive cascading effect on both the targeting and battlespace issues that still divide thinking airmen and land warriors. A truly joint architecture of supported and supporting MTOs competing for the JFC's apportionment on the basis of capability and operational effect will create an environment for synchronizing airland operations instead of creating parochial squabbles.

The following changes to joint doctrine will facilitate the transition to a focus on Mission Type Orders:

- 1. Joint doctrine for air apportionment should be changed to reflect that the preferred form of apportionment is by Mission Type Orders against prioritized supported and supporting air objectives and tasks.**
- 2. Joint doctrine for targeting should emphasize the preference for desired effects and Mission Type Orders in the targeting process.**

3. Joint doctrine for battlespace control should reflect the primacy of supported and supporting Mission Type Orders as the primary factor in determining who controls the battlespace. The commander with the primary responsibility for achieving operational objectives and the preponderance of forces in a particular area of battlespace at a given time should control the battlespace.

The problem with the last war is that the lessons learned may not always apply to the next. However, the airland battles of the Gulf War are yet to be resolved. Joint "Auftragstaktik" should be one of the real lessons of the Gulf War. Mission Type Orders, if adopted in joint doctrine as the primary frame of reference for the airland relationship, will end the airland battles and provide a logical framework for truly joint victory.

ENDNOTES

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30. Lieutenant Colonel Richard B. H. Lewis, Desert Storm-- JFACC Problems Associated with Battlefield Preparation, unpublished Army War College research report, (Carlisle Barracks Pennsylvania: United States Army War College, 1993), 33-34
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32. Precision guided weapons are generally ceded at least a ten to one advantage. For example, it would take ten conventional attack aircraft to achieve the same level of damage as one F-117 Stealth Fighter dropping a single laser guided bomb on the same target. This varies with the relative efficiency of

the conventional aircraft, release altitude, and threat environment.

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34. Scales, 180: Lewis, 29-31
35. General Fred Franks, "Interview with General Fred Franks by Major Mace Carpenter," School of Advanced Airpower Studies, Air University; Maxwell AFB, Alabama, 23 March 1994, 3
36. Ibid, Gen Franks was not concerned due to the overwhelming superiority in both quantity and quality of coalition air forces.
37. Cushman, 35-38
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41. Scales, 181
42. Ibid, 180-189
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44. Ibid, 161
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- 57. Kearney and Eliot, 157
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Note: Major Stambaugh notes that the entire ATACMs inventory can be replicated by 500 F-16 sorties carrying four bombs apiece. The author adds, that 2500 aircraft sorties a day (approximately 1500 of which were devoted exclusively to air to ground attack) was the norm during Desert Storm.

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- 63. Doctrine for Joint Operations, Joint Pub 3-0, III-1
- 64. Major Michael R. Moeller, The Sum of Their Fears, The Relationship between the Joint Targeting Coordination Board and the Joint Force Commander (Maxwell Air Force Base, Alabama: School of Advanced Airpower Studies, August 1995), 51
- 65. Col Sam Baptiste, Lecture at the Army War College on 13 February 1996. Col (then Lt Col) Baptiste was the head of the Air Planning Cell responsible for air operations in the Kuwait Theater of Operations during operation Desert Storm. (Used by permission of Col Baptiste.)

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