

AD-A249 780



92-12422



REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 0704-0188

1a. REPORT SECURITY CLASSIFICATION UNCLASSIFIED			1b. RESTRICTIVE MARKINGS Approved for public release distribution unlimited.			
2a. SECURITY CLASSIFICATION AUTHORITY			3. DATE OF AVAILABILITY STATEMENT			
2b. DECLASSIFICATION / DOWNGRADING SCHEDULE			4. PERFORMING ORGANIZATION REPORT NUMBER(S)			
4. PERFORMING ORGANIZATION REPORT NUMBER(S)			5. MONITORING ORGANIZATION REPORT NUMBER(S)			
6a. NAME OF PERFORMING ORGANIZATION U.S. Army War College		6b. OFFICE SYMBOL (If applicable)		7a. NAME OF MONITORING ORGANIZATION		
6c. ADDRESS (City, State, and ZIP Code) Root Hall, Building 122 Carlisle, PA 17013-5050			7b. ADDRESS (City, State, and ZIP Code)			
8a. NAME OF FUNDING / SPONSORING ORGANIZATION		8b. OFFICE SYMBOL (If applicable)		9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER		
8c. ADDRESS (City, State, and ZIP Code)			10. SOURCE OF FUNDING NUMBERS			
			PROGRAM ELEMENT NO.	PROJECT NO.	TASK NO.	WORK UNIT ACCESSION NO.
11. TITLE (Include Security Classification) Is It Time To Extend The CINC's Directive Authority In Logistics?						
12. PERSONAL AUTHOR(S) Mark A. Costa, Lt Col, USMC						
13a. TYPE OF REPORT Study Project		13b. TIME COVERED FROM _____ TO _____		14. DATE OF REPORT (Year, Month, Day) 1992, April, 1		15. PAGE COUNT 31
16. SUPPLEMENTARY NOTATION						
17. COSATI CODES			18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number)			
FIELD	GROUP	SUB-GROUP				
19. ABSTRACT (Continue on reverse if necessary and identify by block number) The directive authority of the Commander-in-Chief (CinC) with respect to logistics is limited during peacetime. During crisis and war the CinC exercises full directive authority over all assigned resources. The lessons of DESERT SHIELD/STORM offer a testimony to the validity of joint logistics doctrine. But, the future environment with the factors of reduced forward deployed forces, the demands of a forward presence mission through force projection coupled with a reduced force structure mitigate a reexamination of current doctrine. Through a review of current joint logistics doctrine and DESERT SHIELD/STORM lessons learned and an analysis of the impact of the future environment on the key logistics elements (transportation, materiel supply, combat service support (CSS) force structure and facilities) an assessment on the need to extend or expand the CinC's authority can be made. The goal of any extension of the CinC's peacetime authority in logistics is to ensure continuity of control as the transition to crisis or war takes place. While the military services retain the traditional (Cont)						
20. DISTRIBUTION / AVAILABILITY OF ABSTRACT <input type="checkbox"/> UNCLASSIFIED/UNLIMITED <input checked="" type="checkbox"/> SAME AS RPT. <input type="checkbox"/> DTIC USERS				21. ABSTRACT SECURITY CLASSIFICATION UNCLASSIFIED		
22a. NAME OF RESPONSIBLE INDIVIDUAL JOHN E. BROWN, COL, QM, DMSPO			22b. TELEPHONE (Include Area Code) (717) 245-4404		22c. OFFICE SYMBOL AWCAC	

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USAWC MILITARY STUDIES PROGRAM PAPER

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IS IT TIME TO EXTEND THE CINC'S DIRECTIVE AUTHORITY IN LOGISTICS?

AN INDIVIDUAL STUDY PROJECT

by

**Lieutenant Colonel Mark A. Costa
United States Marine Corps**

**Colonel John E. Brown
Colonel Thomas W. Sweeney
Project Advisors**

**U.S. Army War College
Carlisle Barracks, Pennsylvania 17013**

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release; distribution is unlimited.**

ABSTRACT

AUTHOR: Mark A. Costa, Lt Col, USMC

TITLE: Is it time to extend the Cinc's directive authority in logistics?

FORMAT: Individual Study Project

DATE: 1 April 1992 PAGES: 31 CLASSIFICATION: Unclassified

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I. INTRODUCTION

This study addresses the potential need to expand and extend the directive authority of the Commander-in-Chief (CinC) in logistics beyond the presently established limits as the U.S. Armed Forces face significant reductions and reorientation.

Logistics is traditionally viewed as a service responsibility, although the Unified Action Armed Forces (UNAAF), Joint Pub 0-2 and Joint Pub 4-0 , give the CinC "directive authority" over logistics within his command. Both joint pubs also differentiate the extent of this authority between peacetime and "crisis or wartime conditions". DESERT SHIELD/STORM provided the first test of this joint logistics doctrine. During the remainder of the 1990's the armed forces will face decreasing resources in personnel and materiel, with a concurrent reduction in forward basing. Simultaneously, revisions of the Unified Command Plan (UCP) are contemplated. Theater logistical support concepts will, in some cases, require radical changes. Current methods of determining requirements, identifying sources and assessing feasibility of military strategies for contingencies may not prove valid. The CinC may require an increase in his influence on the military services' logistics functions to ensure efficiency in executing his strategy. How much additional authority, if any, is needed?

WHY ASK THE QUESTION ?

The current and future environment for the combatant commander is uncertain. Recent events should alert the logistics

community and the combatant commander to become more cautious in planning and more conservative in the use of resources. DESERT SHIELD/STORM and the end of the Cold War were the highwater marks for the old strategy and planning methods. The National Military Strategy and National Security Strategy are evolving as the New World Order is assessed. At best the future situation can be described as nebulous. However, one fact endures, the armed forces will be reduced while all missions remain intact. Joint Pub 4-0 characterizes logistics as a force multiplier, a deterrent and contributor to flexibility. "Essentially, logistics increases the employment options of the CinC's combat forces".¹ As the new military strategy evolves planning must begin for the power projection task, which demands a more responsive logistics system. Adapting logistics planning for the future is the challenge, and examining the CinC's authority is necessary.

SCOPE OF THE STUDY

The following methodology is used in the study:

- a. Review current joint logistics doctrine.
- b. Review DESERT SHIELD/STORM logistics lessons learned.
- c. Analyze the impact of the future environment on the CinC's ability to determine requirements and execute support operations.
- d. Summarize conclusions from the analysis, review of joint doctrine and DESERT SHIELD/STORM lessons learned.
- e. Make recommendations to improve the CinC's ability to execute operations effectively.

TERMINOLOGY

In this study the following operational definitions are used. Commander-in-Chief (CinC) is understood to refer to those combatant commanders with geographic areas of responsibility, i.e. Atlantic, Pacific, Central, Southern and European Commands. Special Operations Command is included because of its mission to execute tasks from the National Command Authority (NCA) anywhere in the world. CinC and combatant commander will be used interchangeably. Other CinCs will be referred to by name. Logistics will be understood to mean joint logistics.

Transportation, combat service support (CSS) force structure, facilities and materiel supply are defined as follows. Transportation includes all elements of the transportation system, to include aerial and seaport facilities, terminal operating units, intertheater assets (strategic airlift and sealift), intra-CONUS assets (rail and truck) and intratheater assets under the CinC's control. CSS force structure will refer to the support units that provide common user support to all forces in the operational theater such as medical, engineer and transportation (line haul). Facilities refers to both semipermanent and permanent structures and real estate owned or leased by the U.S. Government. Materiel supply refers to the common consumable items of supply, specifically supply classes I (subsistence), III (bulk petroleum, oil, lubricants (POL)), V (ammunition), and VIII (medical supplies).

II. REVIEW OF JOINT LOGISTICS DOCTRINE

Joint Pub 4-0 provides a strategic and operational perspective of logistics. Strategic level logistics is the act of creating and sustaining combat forces. Strategic logistics includes the procurement of resources in a timely manner, allocation of available resources among subordinate commands, and distribution of resources to achieve maximum combat effectiveness. The logistics principles of responsiveness, simplicity, flexibility, sustainability, survivability, economy and attainability can be summarized by simply stating "getting the right things to the right place at the right time". The logistics process is the complex interaction of acquisition, distribution, sustainment and disposition of personnel and material. The six logistics support requirements are; supply, maintenance, transportation, general engineering, health services and other services.

PLAYERS, ROLES AND RULES

A review of the players, roles and rules of logistics is necessary for this study. JCS Memorandum of Policy (MOP) 7, Joint Strategic Planning System, outlines the responsibilities of each player in the strategic planning system in requirements determination of force structure. Joint Pubs 2-0 and 4-0 specify the authority and responsibilities of the services, combatant commanders and the Chairman of the Joint Chiefs of Staff (CJCS) with respect to logistics.

The CinC has directive authority with respect to logistics.

Directive authority in logistics is defined in Joint Pub 4-0 as the authority to "issue directives, including peacetime measures, to subordinate commanders necessary to ensure the following: (1) Effective execution of approved operational plans. (2) Effectiveness and economy of operation. (3) Prevention or elimination of unnecessary duplication of facilities and overlapping of functions among the Service components."² The scope of authority is expanded during periods of crisis and war to authorizing "commanders to use all facilities and logistic resources available as necessary for accomplishment of their operational missions."³

The military departments and services are charged with equipping, training and sustaining their forces employed by the CinC. The services determine the requirements of their forces based on the CinC's guidance and policies and build the corresponding logistics infrastructure. Each service defines its unique logistics support structure required to support wartime requirements of the CinC. This infrastructure includes the spectrum of facilities (with base support structure), materiel supply and CSS force structure. During joint and combined operations forces are mobilized, if necessary, and deployed by the military service.⁴ Once in theater, logistics support is provided through the theater service components. Additionally, logistics support from joint or defense agencies such as the Defense Logistics Agency (DLA) is normally provided through the theater service components to forces employed in theater.

The military service role remains to provide and support forces to the CinC. The Goldwater-Nichols Act confirmed and highlighted these responsibilities. Additionally, the role of the CinC in planning and stating requirements was affirmed. The act also expanded the responsibilities and authority of the Chairman of the Joint Chiefs of Staff (CJCS). The Chairman is responsible for commenting on the adequacy of resource allocation by the services in their budget submissions, to include the authority to submit an alternative budget proposal. During execution of contingencies, the Chairman, through actions by joint boards, allocates resources among competing requirements. These actions attempt to ensure that the best support is provided to each CinC under the given circumstances.

LOGISTICS RESPONSIBILITIES OF THE CINC

The Commander-in-Chief is responsible for Logistics Preparation of the Theater (Battlefield). The CinC must ensure that his theater is capable of transitioning from peacetime to crisis or war. First, the theater must be capable of receiving the strategic movement of augmenting and reinforcing units. Next, the theater must have an internal transportation network to support onward movement of units and supplies. Finally, the CinC must be provided the capability to sustain the force from either a CONUS or theater based logistics support structure.

Logistics Preparation of the Theater extends through four phases; Pre-deployment, Deployment, Employment and Sustainment of Operations. During each phase the CinC must evaluate the

requirements for facilities, transportation, supplies and CSS units, and apply resources to satisfy the requirements. Under current doctrine, the authority of the CinC is different in each phase, depending on whether a declared crisis or condition of war exists. For the purpose of this study the CinC exercises "peacetime" authority during the predeployment phase and routine planning phases for operations. Conversely, for the purpose of this study, the deployment, employment and sustainment phases are considered under crisis and wartime conditions during which the CinC is exercising full directive authority. The key question is, can the CinC fulfill his responsibilities with the current limits on his logistics authority?

LIMITS OF THE CINC'S AUTHORITY

During crisis and war the CinC exercises full authority to direct the allocation of all assigned resources, to include organization of forces and assignment of missions. Short of crisis and war (peacetime), the CinC is limited in his execution of directive authority in logistics. During peacetime, once resources have been allocated to his assigned forces the CinC is limited to redistributing resources among his service components only with their concurrence. However, the CinC is responsible for efficient use of resources in execution of his mission while attempting to reduce duplication of effort in logistics. Therefore, the CinC is given a responsibility with limited authority to exercise. Without mutual agreement on the reallocation of resources (facilities or supplies) between

service components, the CinC can only mediate negotiations. Disputes not settled in theater reach final resolution through service chains at the service departments and the Joint Staff.

THE CINC AND REQUIREMENTS DETERMINATION

Development of a theater's requirements is the key logistics function during peacetime. There are two operational level considerations of logistics. First, operational requirements must be identified, and second, priorities for the employment of resources must be established. The CinC participates in requirements determination by establishing policy and providing guidance to his service components for determining requirements, validating component requirements, and prioritizing requirements among the services.

Three methods of communicating requirements are available to the CinC. The Operations Plan (OPLAN) provides a listing of requirements by unit type and availability (Time Phased Force Deployment List (TPFDL)) to accomplish the mission. During OPLAN development an analysis of feasibility, associated risk, and logistic supportability is conducted.⁵ This analysis must specifically address the OPLAN's feasibility with respect to forces, transportation, key materiel supplies and facilities. Additionally, the CinC includes an approved risk assessment in the OPLAN summary. Annually the CinC submits his integrated priority list (IPL). This consolidation of theater requirements from among his components reflects the priority ordering of "war stopping" materiel shortfalls. The CinC's Preparedness

Assessment Report (CSPAR) is also submitted annually. This report provides the CinC a means of communicating his assessment of the capability to accomplish assigned missions (specifically from the Joint Strategic Capabilities Plan (JSCP)) by identifying materiel, facility and force structure shortages. The OPLAN, IPL and CSPAR provide the CinC opportunities to articulate specific requirements for CSS units, facilities, quantities of specific material or transportation lift.

JOINT LOGISTICS FORUMS

Joint logistics issues are routinely addressed in two forums, the Conference of Logistics Directors (COLD) and the Joint Logistics Board (JLB). Each forum provides guidance and direction for the development of logistics doctrine. Additionally, they offer another avenue for discussing CinC's requirements, their relative priority and the ability of the military services to support the requirements. Increased emphasis and importance are placed on each forum as the Joint Staff continues to articulate and refine joint logistics doctrine.

CONFERENCE OF LOGISTICS DIRECTORS (COLD)

The COLD is a meeting of the directors of logistics from each of the combatant commands with their counterparts from the military services and the Director of Logistics from the Joint Staff. COLD meetings include an update on the current planning environment. This update includes the world situation, strategy update, budget update, and in the case of 1992 a presentation on

Adaptive Planning in the new Joint Strategic Capabilities Plan (JSCP). Information briefings and papers from each of the services, Joint Staff and defense agencies, such as the Defense Logistics Agency (DLA), provide the baseline of information for the logistics community.⁶ Interaction between the principle logisticians ranges from reviewing completed studies, discussing continuing policy issues to the requirements for new policies for the future environment.

JOINT LOGISTICS BOARD (JLB)

The Joint Logistics Board (JLB) was established to support the CinC and military services in improving the CinC's logistics capability. To accomplish the task the JLB does the following: identifies logistics deficiencies through evaluating joint operations and exercises; analyzes and recommends elimination of unnecessary logistics functions; develops joint logistics doctrine, tactics, techniques and procedures to address logistics problems; and recommends those logistics concepts and systems that should be evaluated in the joint exercise environment. The JLB is at the hub of the assessment, development and implementation cycle of joint logistics doctrine.⁷

The JLB operates through working groups. Each CinC and military service has the opportunity to participate in any working group.⁸ Working groups address issues of common interest to all CinCs (eg. Ammunition Working Group), or are organized with broader perspective but with direct application to only some of the CinCs (eg. Logistics in Low Intensity Conflict). These

working groups become the birthplace of joint logistics doctrine, tactics, policies and procedures.

III. DESERT SHIELD/STORM LESSONS LEARNED

Operations DESERT SHIELD and DESERT STORM provided the first true test of the joint logistics concepts, doctrine and procedures. No exercise or operation of similar magnitude had been supported since either the implementation of the Goldwater-Nichols Act or the publishing of the first tier of joint publications. Commander-in-Chief Central Command (CinCCENT) exercised his full directive authority in logistics during execution of DESERT SHIELD/STORM. General Schwarzkopf summarized the achievement of the logistics community in DESERT SHIELD/STORM when he stated;

"Utilizing a combination of strategic sealift and airlift, we moved over 541,000 personnel, their equipment, and supplies necessary for sustaining combat operations halfway around the world in a shorter period of time than anyone would have believed possible. In-country, a transportation infrastructure was established which allowed us to quickly move huge amounts of supplies over long distances making possible the now famous 'LEFT HOOK'. The task faced by the logisticians can only be described as daunting and their success can only be described as spectacular!"⁹

MATERIEL SUPPLY LESSONS

CinCCENT established initial theater sustainment policies and subsequently reviewed and revised the policies as the situation dictated. During Phase I (Defensive Buildup Phase, 7 August through 12 November 1990) the policy (goal) for classes I (Subsistence), III (Bulk POL), V (Ammunition) and water was 30 Days of Supply. During Phase II (Offensive Buildup Phase, 12

November 1990 through 17 January 1991) the policy for Classes I and V changed to 60 days of supply. Reliable Host Nation Support (HNS) for fuel and water allowed a lower level to be stocked (30 Days of Supply for fuel and 3 Days of supply for water). CinCCENT exercised his directive authority in the redistribution of resources and tasking for common support. On more than one occasion one service component was directed to provide needed supplies to another to ensure mission accomplishment.

Specific lessons learned in the area of materiel supply centered on the responsiveness of the industrial base. Most DESERT SHIELD/STORM needs were satisfied from existing inventories. Industry was responsive and timely in production of some spares and repair parts for fielded items. However, as the theater stockage policy changed the increased requirements outstripped the industrial capability to respond with rations and certain munitions. Additionally, the unique environment and threat of chemical attack generated requirements for desert uniforms and boots and Nuclear, Biological and Chemical (NBC) protective clothing in quantities that industry was not capable of fully satisfying.¹⁰

TRANSPORTATION LESSONS

Lessons learned confirmed most prior assessments of the transportation system. As expected in both Phase I (Defensive) and Phase II (Offensive) requirements for transportation exceeded capability. Specific actions taken in the area of transportation included allocation of airlift among the military services,

establishing the priority of movement of units and the mode of transportation. Prepositioning proved to be essential to rapid deployment of combat forces and significantly reducing strategic lift requirements. The Ready Reserve Fleet (RRF) was not as responsive as planned. More Roll-on Roll-off (RO/RO) ships were needed to rapidly deploy heavy forces. Airlift was responsive with the activation of the Civil Air Reserve Fleet (CRAF), but required intensive management by CinCCENT to ensure proper usage. Intratheater ground transportation was augmented by Host Nation Support and foreign government provided off-road heavy equipment transporters (HETs). This augmentation of the CSS force structure in theater was essential to support timely movement from port to assembly areas and attack positions.¹¹

OTHER LOGISTICS LESSONS

Host Nation Support (HNS) was critical to the success of DESERT SHIELD/STORM. Materiel needs such as 4.5 million meals per month, 90 percent of the water consumed and all the fuel used were from HNS. Additionally, significant port handling and line haul capability were employed. Initially these resources offset the lack of CSS units in theater and later these resources increased the deployed CSS units' capabilities to support the expanded combat force.

Facilities in the theater were coordinated by CinCCENT and consisted of a combination of existing facilities and theater construction by engineer units.¹² Basing rights and access to numerous facilities contributed to the rapid establishment of

operational units, especially air forces.¹³

The most important lesson learned by CinCCent's staff was the need to provide more specific tasking to component commanders especially in the area of planning for common support.¹⁴ The more detailed the guidance and tasking, especially in providing specific requirements, the more accurate the planning by service components for the size of the support force. This affects all areas of logistics from the number and type of CSS units, to transportation requirements and facility needs.

IV. ANALYSIS

An analysis of the impact of the future environment on selected logistics support requirements follows. The factors of the future environment in the analysis are Crisis Response, Forward Presence, and Reduced Force Structure. The elements of logistics support are Transportation, Materiel Supply, Facilities and CSS force structure. An impact matrix (Figure 1) summarizes the results of the analysis. Each cell of the matrix indicates the impact of the future environment elements on the CinC's ability to determine requirements and execute logistics support functions. The relative impact is a statement of the significance of the future environment given the CinC's current situation.

THE FUTURE ENVIRONMENT

The combined effects of the implementation of the strategy delineated by President Bush at Aspen, Colorado on 2 August 1990, the reduction of the armed forces by 25 percent to the Chairman's

Base Force levels and the erosion of a monolithic Soviet threat provide an uncertain and ill defined future for military service planners and combatant commanders. Changes in strategy from forward deployed to forward presence, with the inherent power projection requirement, place a greater premium on response time. Likewise, the erosion of a monolithic threat and the emergence of multiple potential "flashpoints" of ethnic unrest and regional instability, require combatant commanders to plan for operations for varying durations over a wider spectrum of conflict. Finally, the reduction of the armed forces to base force levels reorients the CinC's planning to consider only those forces that exist, rather than those that could be programmed. The logistics implications for the CinC of these trends is the basis of the analysis.

FORWARD PRESENCE

Reducing forward deployed forces and establishing a forward presence element in the National Military Strategy have the following logistics implications. First, demands on the transportation system dramatically increase. All elements of the system are affected, from installation capabilities, to transportation units, intertheater lift, and theater reception assets. Second, Prepositioned War Reserve Material (PWRM) location and stockage levels policies require review. Former forward prepositioning sites may no longer be available. Malpositioning either in CONUS or overseas has significant sustainability impacts. Third, reliance on Host Nation Support

(HNS) as an offset for reduced forward positioning must be examined. The offset may be possible but at what cost in money, time, reliability and survivability? The power projection mission inherent with a forward presence element of strategy demands a new assessment by the CinC of the ability to conduct operations if he previously relied on forward deployed forces and materiel.

CRISIS RESPONSE

The ill defined and uncertain threats of the future require a logistics capability to respond to potential crises. Without a well defined and quantifiable threat, as during the Cold War era, the CinC must now plan for multiple and potential evolving crisis situations. Crisis response situations span the spectrum of conflict and vary in duration. Missions in Low Intensity Conflict (LIC) normally require a minimal number of combat units but rely heavily on combat support (CS) and CSS units. The use of CS and CSS units as the vanguard during periods of "violent peace" or in "peacetime engagement" requires a disproportionate combat to support force structure mix compared to current force structures. Conversely, at the higher end of the conflict spectrum, the requirement to support a contingency corps (multiple heavy divisions with supporting forces) deployable anywhere in the world in 75 days requires a different CSS force structure.

Crisis response implies the requirement for timely (or rapid) response. When time is essential, the transportation system is challenged to respond. Crisis response also implies

unrest in the affected country and possibly its neighbors. This unrest can impact on or inhibit the availability or reliability of Host Nation Support (HNS).

The uncertainty inherent with the crisis response mission limits the ability to quantify requirements and thus presents an additional challenge to the logisticians. Reduced forward deployment requires more forces and supplies to originate from CONUS. The challenge to the military services is to ensure the most demanding requirements of each CinC are satisfied from the resources held in CONUS. This challenge will be more difficult than before as the services attempt to balance the fiscally demanding economy of scales and reduction of redundancy with new and changing requirements during a period of declining budgets.

REDUCED FORCE STRUCTURE

The minimum logistics structure below which no viable combat structure can be supported must be determined. This minimum logistics structure includes the associated facilities, supplies, transportation assets and CSS force structure to deploy, receive and sustain combat units. The "tooth to tail" ratios of the past no longer apply. The current active component (AC) and reserve component (RC) split of CSS force structure should also be challenged. As the sophistication of weapon systems increases and the availability of forward positioned forces, facilities and supplies decreases, the old parameters for determining the ratio are superseded. As the force structure is reduced in overall size, the proportion of combat and combat support (CS) to CSS

units must be changed and in some cases increased. Likewise, the ratio of AC to RC CSS units must be examined. A trivial but illustrative example of the need to examine the support ratio follows. If a cook is planned to support 200 personnel in the old structure, how many will be programmed when the structure is 100, or 50, or as low as 20? To the extreme, if there is but one man who must be supported, then one cook is required. In fact, the cook may be the last to go! Likewise, if there is at least one truck to be driven, there must be at least one driver and one mechanic. The alternative is to change radically our support concepts. This alternative may be demanded and addressed during the development and fielding of new systems.

TRANSPORTATION

Transportation is a logistics function that is currently managed at the joint level. The establishment of the unified Transportation Command provided the final element in completing the joint management and execution of transportation. Intra-CONUS, intertheater (strategic) and intratheater transportation requirements, assets and scheduling for common carriers is jointly managed. Commander-in-Chief Transportation Command (CinCTRANS) manages the intra-CONUS and intertheater assets (based upon supported CinC priorities). Transportation components Military Transportation Management Command (MTMC), Military Sealift Command (MSC) and Military Airlift Command (MAC) are directed by CinCTRANS. Theater service components provide their requirements to their CinC for consolidation and prioritization.

CinCs control intratheater common carrier support within their area of responsibility. The military services are in a support role. As the only major logistics function that is jointly managed, as described above, the CinC's authority is sufficient.

Theater transportation requirements are easily quantifiable. Required facilities, transportation assets and transportation units can be calculated from existing plans and analysis of future contingencies based upon the force mix and location of deployment. Therefore, the future environment will have a minimal to moderate impact on transportation requirements determination. Execution of contingencies in the future will be more demanding of the transportation system, since the greater portion of men and materiel will originate from CONUS. Also, to ensure rapid movement during crisis response, more transportation assets are needed in an active or immediately available status.

MATERIEL SUPPLY

The current method of determining requirements and providing materiel supplies involves minimal direct control by the CinC. The current methodology consists of four steps. First, the CinC provides guidance and policy for theater sustainment. Second, the theater service components, with the assistance of the military services, determines their requirements. Third, the CinC reviews and validates the components' requirements, prioritizes them and assesses the criticality of any projected shortages in attaining the requirements. Fourth, the military services pursue satisfying the requirements. Assets are applied

against service requirements in the following priority: first, theater assets, next, CONUS assets, then assets from other theaters, and finally procurement.

This methodology satisfied the former deliberate planning process. This methodology determines the requirement for the Industrial Preparedness Planning (IPP) as well as War Reserve Material (WRM) supplies and identifies that portion to be prepositioned (PWRM) either in CONUS or overseas. The methodology relies on a quantifiable threat, stable threat oriented force structure, and historically based consumption rate for supplies. It should be noted that the CinC's authority in planning is advisory. During crisis and war the CinC has authority to distribute materiel in his theater, over the objection of any of the services.

In contrast to the methodology above, one commodity area is currently jointly managed. Bulk petroleum, oil and lubricants (POL) products are the only jointly managed materiel in peacetime as well as crisis and war. The CinC consolidates POL requirements and manages theater stockage levels either directly or through delegation to a subordinate command. Joint Petroleum Offices (JPO) are found on each combatant commander's staff. The JPO coordinates and manages POL in the theater. The JPO provides the CinC with continuity in the span of control over POL during peacetime and through the transition to war.

The future environment has the following impact on the materiel supply area. The reduced force structure size and

concomitant reduced training will generate an overall reduction in consumption of items such as ammunition and repair parts. This reduced consumption may go below levels required to economically justify maintaining a warm production base. Increased requirements can be generated by the CinC recommending higher readiness levels, increased training, or increased WRM stockage levels. These actions increase annual operating costs. However, even these actions may not generate sufficient demand to maintain a warm production base for critical ammunition items and repair parts, leading to the same production base problems experienced during DESERT SHIELD/STORM.

Another impact of the future environment results from the shift to crisis response and forward presence from forward deployed. This change in emphasis dictates that supplies to support contingency operations will be maintained, in most cases, at CONUS locations. Insufficient levels of contingency stocks can limit employment options and result in deployment timeframes being extended. Additionally, limited stocks constrain the planned duration of operations which, in turn, affect planning options. The CinC highlights key material shortfalls at the Defense Planning and Resources Board (DPRB) by the submission of his Integrated Priority List (IPL). However, these lists are usually limited in scope to focus on major weapons systems. No method is currently available during peacetime for highlighting to the DPRB the spectrum of material supply items that are "war stoppers" to sustaining operations (i.e. food, ammunition, fuel

and repair parts).

CSS FORCE STRUCTURE

The area in which the CinC currently has the least control and results in the greatest operational limitation is the structure of assigned CSS forces. Once assigned, the CinC has authority to organize forces and assign missions as necessary. However, the CinC is operationally constrained in crisis and war by the CSS force structure that is developed during peacetime when his influence over service force structure is limited.

The methodology for determining CSS force structure requirements for CinC OPLANS and identifying unfilled requirements as "unsourced" unit requirements is no longer feasible for the future environment. This method of justifying current or planned force structures is dysfunctional in light of the base force structure.

The future environment requires a review of the old "tooth to tail" ratios as stated previously. Overarching the lack of flexibility in changing the force structure is the requirement for power projection and reduced, if any, forward deployed forces. This situation generates a greater requirement for and burden on CSS units. The AC to RC ratio will also be affected. Transportation and material control units must be readily available to deploy in sufficient strength to provide common support to early deploying forces. Previous Host Nation Support (HNS) offsets cannot be expected, due to affordability or lack of availability in the receiving country.

As addressed previously, Low Intensity Conflict strategies may require a disproportionately larger CSS force structure to accomplish missions in support of peacetime engagement. The source of this same CSS structure is the limited percentage of the end strength authorizations for the base force list and the inherent AC to RC ratio of CSS units.

A methodology to identify unsourced unit requirements must be retained or reinstated for the CinC to communicate his shortages in force structure. Otherwise, if CSS structures are left to unilateral military service development, the most demanding scenarios by functional area (eg. medical, transportation and engineer) for each CinC may not be assessed. Instead, the old method of calculating "tooth to tail" ratios may be used. The result can be needlessly constrained operational planning and execution by CinCs. This limitation of military options available to the CinC could result in improper, untimely or no response to regional crisis situations.

FACILITIES

Shortages in facilities is the most difficult logistics deficiency to overcome. The combination of long lead time in procurement and construction, separate budgeting and appropriations, multiple political pressures and the current limitations on the CinC make it a formidable problem. Shortfalls, or maldistribution, of facilities in a theater may decrease the ability to respond rapidly to contingencies. HNS is a potential offset but limited by the willingness of the country

**FIGURE 1
IMPACT MATRIX OF FUTURE ENVIRONMENT
ON LOGISTICS SUPPORT AREAS**

		FUTURE ENVIRONMENT FACTORS		
LOGISTICS SUPPORT ELEMENTS		FORWARD PRESENCE	REDUCED FORCE STRUCTURE	CRISIS RESPONSE
TRANSPORTATION	MINIMAL IMPACT ON REQUIREMENTS	MINIMAL IMPACT ON REQUIREMENTS	MODERATE IMPACT ON REQUIREMENTS	MODERATE IMPACT ON REQUIREMENTS
	SIGNIFICANT IMPACT ON EXECUTION	MODERATE IMPACT ON EXECUTION	SIGNIFICANT IMPACT ON EXECUTION	SIGNIFICANT IMPACT ON EXECUTION
MATERIAL SUPPLY	MODERATE IMPACT ON REQUIREMENTS	MINIMAL IMPACT ON REQUIREMENTS	MODERATE IMPACT ON REQUIREMENTS	MODERATE IMPACT ON REQUIREMENTS
	SIGNIFICANT IMPACT ON EXECUTION (LIFT REQUIRED)	MAJOR IMPACT ON PROCURING MATERIAL AND SUSTAINING PRODUCTION	SIGNIFICANT IMPACT ON COMPETING SIMULTANEOUS CONTINGENCIES	SIGNIFICANT IMPACT ON COMPETING SIMULTANEOUS CONTINGENCIES
FACILITIES	SIGNIFICANT IMPACT ON REQUIREMENTS	MINIMAL IMPACT ON REQUIREMENTS	MODERATE IMPACT ON REQUIREMENTS	MODERATE IMPACT ON REQUIREMENTS
	SIGNIFICANT IMPACT ON ABILITY TO EXPAND	REDUCED THEATER CONSTRUCTION CAPABILITY	MODERATE IMPACT ON EXECUTION MAY CAUSE DELAYS	MODERATE IMPACT ON EXECUTION MAY CAUSE DELAYS
COMBAT SERVICE SUPPORT (CSS) FORCE STRUCTURE	SIGNIFICANT IMPACT MORE TRANSPORT AND MATERIEL HANDLING UNITS NEEDED FOR EARLY DEPLOYMENT	MAJOR IMPACT NEW TOOTH TO TAIL AND AC/RC RATIOS MUST BE FOUND	MAJOR IMPACT LIC REQUIRES NEW CS/CSS STRUCTURE EARLY DEPLOYING UNITS NEED NEW AC/RC MIX	MAJOR IMPACT LIC REQUIRES NEW CS/CSS STRUCTURE EARLY DEPLOYING UNITS NEED NEW AC/RC MIX

or availability of suitable facilities. As in all cases, during crisis and war , the CinC's authority is sufficient. However, during planning and predeployment phases the CinC's ability to affect the Military Construction (MILCON) development and allocation of existing facilities is limited.

The future environment magnifies the CinC's limitations. As forward deployed forces return and power projection planning increases, the day-to-day requirements for overseas facilities decrease, while the surge requirements increase. The ability of a CinC to plan for the availability of host nation facilities upon execution of a contingency varies by region and country. Despite the relative ease in determining requirements, few options are available to the CinC for satisfying the needs. In some cases, investment in semi-permanent facilities that are affordable and used routinely by the host country forces and U.S. forces during exercises is a consideration. Another option is planning to lease facilities through contingency contracts during execution of contingencies. The least desirable option is the development of deployable facilities. This option increases the burden on the transportation system as well as the CSS structure (specifically engineer units).

V. CONCLUSIONS

The following conclusions are derived from the analysis, DESERT SHIELD/STORM lessons learned and review of the joint logistics doctrine:

1. Sufficient joint doctrine exists or is under development to

guide joint logistics management. However, the development of the techniques and procedures to standardize the specifics of management requirements and allocation of resources is lagging.

2. The CinC's directive authority in logistics is sufficient during crisis and war. His authority in logistics is sufficient for prioritizing requirements and allocating his assigned resources to accomplish his mission.

3. The DESERT SHIELD/STORM experience proved that during a crisis and at war the CinC has sufficient directive authority in logistics to support and in fact expand his employment options. However, this test had certain conditions. First, the entire CONUS and European based logistics systems were available to support one theater. Second, the infrastructure of Saudi Arabia was extraordinarily good and supported the transportation system superbly. Third, the availability of CS and CSS units was only limited by the number of reservists that were authorized to be activated. Thus, as a test of doctrine, DESERT SHIELD/STORM proved it worked. However, as a test of resource management, the future environment may not offer the same luxuries of time, singular focus or favorable Host Nation infrastructure.

4. The CinC's authority during peacetime and the planning phase is restricted to policy development and validating requirements. Sufficient opportunities for the CinC to express his logistics requirements exist. However, no analysis is conducted of how much of the CinC's requirements are satisfied. Likewise, no penalty is incurred, when a valid requirement is not acted upon

by the military services. The only assessable result is a needlessly operationally constrained CinC.

5. The prospects of the future environment suggest better planning and requirements determination are required to allocate scarce resources. Planning can be expected to be less accurate due to the uncertain future environment and therefore the ability to compensate for underestimation must be retained.

6. The most demanding scenarios and associated requirements vary between CinCs. CinCs will be drawing from a central "pot" of contingency resources. The composition of the "pot" is crucial. No single CinC or scenario can be used as the baseline requirement for contingency resources.

7. Consolidation of certain logistics functions under joint management is only possible when a "common denominator" among the services can be established.

VI. RECOMMENDATIONS

1. Expand the authority of the CinC's in logistics requirements determination. CinC's should review and approve all service component requirements prior to forwarding through the military services. Additionally, the CinC should comment on the criticality of the requirement.

2. Conduct a review of the roles and missions of the military services in providing common user support. A Joint Staff review, with the goal of reducing redundancy, would provide a revised baseline for joint force support. From this the military services could pursue CSS force structure development that

satisfies individual service needs as well as the CinC's joint force requirements.

3. Establish the policy that the most demanding CinC OPLAN is the basis for determining the requirements for the CONUS based contingency stocks of materiel supplies. The Joint Staff and military services should select by commodity and in some cases by particular item the greatest requirement based on the most demanding scenario or multiple scenarios. This concept ensures that any scenario (OPLAN) with lesser requirements will be satisfied.

4. Manage facilities jointly. CinCs with overseas facilities under the control of their components should exercise facilities masterplanning. The window of opportunity exists during the return of forces from overseas. Joint masterplanning by the CinC level can improve the efficiency in utilization and provide better justification of future facilities requirements. The services would execute the MILCON program as before, except that overseas facilities requirements would be sponsored by the CinC.

5. Institute a method of accountability by the military services to CinC's requirements. Annually, the CinC submits requirements through multiple channels. Few of these requirements are highlighted at the CJCS and Secretary of Defense level at the Defense Planning and Resource Board (DPRB). Those not reviewed by the DPRB can constitute "war stoppers", contribute to greater friction in war, or limit the CinC's options. Accountability of how the military services are supporting the CinC must be

established. A report card of how the military services are supporting the CinCs should be instituted.

6. Review the six logistics support requirements for the "common denominator" for potential joint management. Transportation is the single logistics area that is jointly managed in peacetime as well as crisis and war, it provides an example with limited further application. A logical extension of the joint management model is to the area of medical services. Medical services in contingencies are jointly planned and managed, i.e. Joint Medical Regulating. Medical services is a potential area for further application of this model since the delivered service is independent of the military service mission, i.e. medical treatment to the sick or wounded is the least common denominator.

The prospects of the future environment should force us to challenge the old way of doing business. The recommendations outlined above attempt to expand the CinC's authority during peacetime. The goal is to maintain continuity of control during the transition from peacetime to war. Greater influence over requirements determination and mechanisms to manage logistics at the joint level enhance the CinC's ability to plan and execute his tasks. Efficiencies can be achieved by the CinC if he has more control over requirements and resources. However, redundancy and overstockage are expenses the military services must bear to ensure sufficient resources are available for war. The future environment will be no less forgiving to the commander who is unprepared or ill equipped.

ENDNOTES

1. Joint Chiefs of Staff, Joint Publication (Test) 4-0: Doctrine for Logistic Support of Joint Operations (Washington, D.C.: June 1990), III-5 (hereafter referred to as Joint Pub 4-0).

2. Joint Chiefs of Staff, Joint Publication 0-2: Unified Action Armed Forces (UNAAF) (Washington, D.C.: December 1986), 3-14.

3. Joint Pub 4-0, I-3.

4. Director of Logistics, Joint Staff, Terms of Reference for the Joint Logistics Board (Washington, D.C.: undated), 1 (hereafter referred to as JLB Terms of Reference).

5. Joint Chiefs of Staff, Instructional Joint Strategic Capabilities Plan (JSCP) (Washington, D.C.: 1992), I-3.

6. Director of Logistics, Joint Staff, Conference of Logistics Directors (COLD-92) Agenda: Logistics: Building on the Storm (Washington, D.C.: 27 January 1992).

7. JLB Terms of Reference, 2.

8. Ibid, 6.

9. Starling, J.D., LTG, USA, "Remarks by Lieutenant General J.D. Starling, USA, to the Army War College Class of 1992" (Carlisle, PA: 18 December 1991).

10. Ibid.

11. Ibid.

12. Ibid.

13. Ibid.

14. Ibid.

BIBLIOGRAPHY

- Director of Logistics, Joint Staff. Terms of Reference for the Joint Logistics Board. Washington, D.C.: undated.
- Director of Logistics, Joint Staff. Memorandum J-4A 01017-91: Joint Logistics Board Meeting Summary. Washington, D.C.: 24 June 1991.
- Director of Logistics, Joint Staff. Conference of Logistics Directors (COLD-92) Agenda: Logistics: Building on the Storm. Washington, D.C.: 27 January 1992.
- Gill, Paul C., COL, USA and Smith, T.C., LTC, USA. "Making a Difference Through Planning." Army Logistician, Washington, D.C.: July-August 1989.
- Honor, Edward, LTG, USA. "Support for the Nation's Defense." Army Logistician, Washington, D.C.: May-June 1989.
- Irby, DeWitt T., COL, USA and Johnson, William R., LTC, USA. "Resourcing Joint Operations - A Logistician's Challenge." Army Logistician, Washington, D.C.: May-June 1989.
- Joint Chiefs of Staff. Memorandum of Policy No.7: Joint Strategic Planning System. Washington, D.C.: 30 January 1990.
- Joint Chiefs of Staff. JCS Publication (Test) 4-0: Doctrine for Logistic Support of Joint Operations. Washington, D.C.: June 1990.
- Joint Chiefs of Staff. JCS Publication 0-2: Unified Action Armed Forces (UNAAF). Washington, D.C.: December 1986.
- Joint Chiefs of Staff. Instructional Joint Strategic Capabilities Plan (JSCP). Washington, D.C.: 1992.
- McIntyre, Andrew J. Jr., COL, USAF and Strand, Richard N., LTC, USA. "The Contribution of Logistics Studies and Analysis." Army Logistician, Washington, D.C.: November-December 1989.
- Rucker, Dale M., COL, USAF and Guilliams, Charles D., LTC, USA. "Meeting the Strategic Mobility Challenge." Army Logistician, Washington, D.C.: September-October 1989.
- Starling, J.D., LTG, USA. "Remarks by Lieutenant General J.D. Starling, USA, to the Army War College Class of 1992." Carlisle, PA: 18 December 1991.
- Tolson, Geroge S., MAJ, USA. "Planning for Medical Mobilization." Army Logistician, Washington, D.C.: January-February 1990.