

MSTP Pamphlet 4-0.2

A Logistics Planner's Guide



MAGTF Staff Training Program (MSTP)

U.S. Marine Corps
January 2002

MSTP Pamphlet 4-0.2

A Logistics Planner's Guide

This pamphlet supports the academic curricula of the Marine Air Ground Task Force Staff Training Program (MSTP).

U.S. Marine Corps
January 2002

UNITED STATES MARINE CORPS
MSTP Center (C 54) MCCDC
3300 Russell Road
Quantico, Virginia 22134-5069

25 January 2002

FOREWORD

1. **PURPOSE.** MSTP Pamphlet 4-0.2, *A Logistics Planner's Guide*, is designed to assist logistics staff officers conducting logistics planning as a member of an operational planning team (OPT).

2. **SCOPE.** This pamphlet provides specific techniques and procedures for logistics planning by the OPT. While the pamphlet is primarily focused at the Marine expeditionary force (MEF) level, logistic planners at the Marine Corps component and major subordinate commands may use these techniques. The focus of this pamphlet is on tactical level logistics planning by the combat service support element of the MEF. Full understanding and successful application of the information in this pamphlet is contingent upon the user reading and understanding the contents of MCWP 5-1, *Marine Corps Planning Process*, and MSTP Pamphlet 5-0.2, *Operational Planning Team Guide*.

3. **SUPERSESSION.** None

4. **CHANGES.** Recommendations for improvements to this pamphlet are encouraged from commands as well as from individuals. The attached User Suggestion Form can be reproduced and forwarded to:

Commanding General (C 54)
3300 Russell Road
Marine Corps Combat Development Command
Quantico, Virginia 22134-5001

Recommendations may also be submitted electronically to:
opso@mstp.quantico.usmc.mil

5. **CERTIFICATION.** Reviewed and approved this date.



D.R. AHLE
Colonel, U.S. Marine Corps
Director
MAGTF Staff Training Program Center
Marine Corps Combat Development Command
Quantico, Virginia

Throughout this pamphlet, masculine nouns and pronouns are used for the sake of simplicity. Except where otherwise noted, these nouns and pronouns apply to either sex.

USER SUGGESTION FORM

From:

To: Commanding General, Marine Corps Combat Development
Command (C 54), 3300 Russell Road, Quantico, Virginia 22134-
5001

1. In accordance with the Foreword, individuals are encouraged to submit suggestions concerning this Pamphlet directly to the above addressee

Page _____

Article/Paragraph No. _____

Line No. _____

Figure/Table No. _____

Nature of Change:

Add

Delete

Change

Correct

2. Proposed Text: (Verbatim, double-spaced; continue on additional pages as necessary.)

3. Justification/Source: (Need not be double-spaced.)

NOTE:

1. Only one recommendation per page.
2. Locally reproduced forms may be used for e-mail submissions to:
opso@mstp.quantico.usmc.mil

This page intentionally left blank.

This page intentionally left blank.

Table of Contents

Part I	Introduction	1
Part II	MAGTF Logistics Planning	3
2001	Operational Design	3
2002	Conceptual Logistics System Development	4
2003	Essential Elements of Logistics Estimates	6
2003a	Personnel Estimate	7
2003b	Logistics Estimate	9
2004	GCE/ACE Logistics Estimate	9
Part III	CSSE Planning	11
Part IV	Mission Analysis	17
4001	Introduction	17
4002	Issues for Consideration	17
4003	Relationship to Other Steps in the MCPP	21
Part V	CSSE Logistics Estimate of Supportability	23
5001	Introduction	23
5001a	Requirements	24
5001b	Capabilities	25
5001c	Comparison/Shortfall	26
5001d	Analysis	26
5001e	Solutions	28
5002	Issues for Consideration	28
5003	CSSE Logistics Estimate of Supportability Format	30
5003a	Annex A, Supply	32
5003b	Annex B, Health Services/Personnel	33
5003c	Annex C, General Engineering	34
5003d	Annex D, Maintenance	34
5003e	Annex E, Transportation	35
5003f	Annex F, Services	35
5004	Relationship to Other Steps in the MCPP	36

Part VI	CSSE Course of Action for Logistics Support Development	37
6001	Introduction	37
6002	Issues for Consideration	41
6003	Relationship to Other Steps in the MCPP	45
Part VII	CSSE War Game	47
7001	Introduction	47
7002	Issues for Consideration	47
7003	Relationship to Other Steps in the MCPP	52
Part VIII	CSSE COA Comparison and Decision	53
8001	Introduction	53
8002	Issues for Consideration	53
8003	Relationship to Other Steps in the MCPP	54
Part IX	CSSE Concept of Operations	55
9001	Introduction	55
9002	Issues for Consideration	55
9002a	Development Guidelines	56
9002b	Sources of Information	57
9002c	Briefing	57
9002d	Outline	58
9002e	Areas or Items to Consider Under Each Logistic Function	59
9002f	Format	61
9002g	The CSS Operations Overlay	63
9002h	Using and Completing the CSSE Requirements and Capabilities Roll-Up Matrices	64
9003	Relationship to Other Steps in the MCPP	66
Part X	Orders Development	69
10001	Introduction	69
10002	Issues for Consideration	69
10003	Relationship to Other Steps in the MCPP	69
Part XI	Transition	71
11001	Introduction	71
11002	Issues for Consideration	71
11003	Relationship to Other Steps in the MCPP	71

Appendix A	CSSE OPT Considerations	73
Appendix B	MAGTF Operations CSSE Considerations	87
Appendix C	Tactical Task Graphics	109
Appendix D	Sample CSS Graphic Symbology	113
Appendix E	Logistics Estimate of Supportability Sample	117
Appendix F	Sample CSSE Planning Information and Concept of Operations	139
Appendix G	MCPP Outline Guide for Logistics Planning	149

Figures

2-1	Conceptual Logistics System	5
2-2	MAGTF Staff Estimate Format	8
5-1	Logistics Estimate of Supportability	29
6-1	Physical Network Analysis	38
6-2	CSSE COA for Logistic Support Graphic	44
9-1	Combat Service Support Operations Overlay	66

Tables

5-1	Fuel Usage	33
5-2	Maintenance Status	34
6-1	COA for Logistic Support Narrative—Matrix Format	43
7-1	Checklist for Preparing Post War Game Products	49
7-2	Sample Synchronization Matrix	51
7-3	Sample Synchronization Matrix	52
9-1	Requirements Rollup	65
9-2	Capabilities Rollup	65

This page intentionally left blank.

Part I

Introduction

Successful logistics begins with planning.

The supported force may have to take specific operational actions to expand logistics capabilities.

Actions may be required to position the logistics needed to support further combat operations.

Logistics provides the resources of combat power, brings those resources to the battle, and sustains them throughout the course of the battle.

Logistics establishes the limits on what is operationally possible.

Logistics planners use the Marine Corps Planning Process to design a logistics system.

MCDP 4, *Logistics*

The goal of logistics planners is to design a logistics system that will extend the operational reach of the force, increase the endurance of the force, and generate tempo of operations. The design of the logistics system should carry the force from deployment to end state. If the operation is designed as a multi-phased operation, the system should be designed by phase and projected to the end of the final phase.

The design of the logistics system should account for an end-to-end distribution of sustainment and materiel and for the delivery of sustainment to the deep, close, and rear battle areas. All established combat service support (CSS) installations, possible installations, organizations, unit mission assignments, and distribution methods form the framework for the logistics system.

A projection of where the force will maneuver—the approved MAGTF course of action (COA) for instance—gives the logistics planner the battlespace on which to conduct an analysis. Planning provides the means “*to evaluate the feasibility*” of various tactical options and to “*determine the adequacy of resources to support them.*” (MCDP 4) This means that it is incumbent upon logistics planners to complete a thorough **supporting unit capabilities** versus **supported unit requirements** analysis. The objective of Marine logistics planning is to match the deployment and sustainment activities of our logistics system to the logistics requirements of the operating forces.

Logistics planners must understand and integrate joint and multinational assets and requirements into MAGTF sustainment operations. Logisticians must understand the commander’s intent and priorities. Planners must maintain situational awareness by tracking and monitoring the battle as it unfolds in order to anticipate requirements and use initiative to meet them. Planners must pre-position supplies and equipment, actively push support forward, and seek windows of logistics opportunity. Due to the nature of rear area operations, all planners should consider the impact of rear area threats on sustainment for ground and aviation operations. MAGTF logistics depends on an effective distribution system. Distribution is the heart of logistics at all levels of command. The distribution system relies on movement control to make it truly effective.

Part II

MAGTF Logistics Planning

While this pamphlet is intended for all logisticians it focuses on the combat service support element (CSSE) because of its input to developing the *logistics system*. All logisticians share the requirement to complete estimates—staff estimates or estimates of supportability—for the MAGTF as a whole and their commands in particular. These estimates ultimately contribute to the MAGTF’s concept of support. The MAGTF concept of support, developed by the MAGTF’s G-4, has to integrate the aviation combat element (ACE) concept of support, the ground combat element (GCE) concept of support, and the CSSE concept of operations, with host-nation support (HNS), pre-positioned wartime reserves (PWR), and joint and allied considerations.

Since estimates drive the concept development process, the MAGTF benefits from a common estimate format. Although the MCWP 5-1 and 4-11 contain an estimate of supportability format, the operating forces will find that the enclosed format better highlights the capabilities and requirements analysis required for logistics planning. In addition, it better facilitates information transfer from one step of the process to the next.

2001. Operational Design

Commanders initiate the conduct of operations with a design that will guide their subordinate commanders and the staff in planning, execution, and assessment. This operational design is the commander’s tool for translating the operational requirements of his superiors into the tactical guidance needed by his staff and subordinate commanders. The commander uses his operational design to *visualize, describe, and direct* those actions necessary to achieve his desired end state and accomplish his assigned mission. It includes the purpose of the operation, what the commander wants to accomplish, the desired effects on the enemy, and how he envisions achieving a decision.

Visualization of the battlespace and the intended actions of both the enemy and the friendly force is a continuous process that requires the commander to understand the current situation, broadly define his desired future situation, and determine the necessary actions to bring about the desired end state. The commander then articulates this visualization to his subordinate commanders and staff through his commander's battlespace area evaluation (CBAE) and initial planning guidance. By describing his visualization in this concise and compelling method, the commander focuses the planning and execution of his subordinate commanders and staffs. Finally, the command directs the conduct of operations by issuing orders, assigning missions and priorities, making decisions, and adjusting his planned actions as necessary based on assessment.

Operational design helps the commander visualize the operation and describe that vision to his subordinate commanders and staff. The elements of operational design include—the factors of mission, enemy, terrain and weather, troops and support available—time available (METT-T), CBAE, commander's guidance, decisive actions, shaping actions, sustainment, the principles of war, tactical fundamentals, battlespace framework, and the operations plan or order. (MCDP 1-0)

2002. Conceptual Logistics System Development

Logistics system visualization provides the elements needed for gaining situational awareness, providing input for mission analysis, initiates decision support products for logistics shaping, and supports the commander's conceptual visualization of his logistics system and supporting concept of operations. Figure 2-1 identifies and sorts supported unit populations into zones of requirements so that compiled sustainment data and other CSS requirements can be associated with specific demand zones or regions. The location of CSS installations and organizations, with compiled capabilities data, is shown as well.

The distribution network should be depicted, showing existing infrastructure in the area of operations (AO) and area of interest, specifically identifying major and alternate routes and their capacities and existing logistics/distribution nodes (e.g., air and sea ports). When distances between existing nodes would stretch the capabilities of our

distribution means beyond their capability, additional node locations should be identified (e.g., combat service support areas (CSSAs)) to fill or bridge the gaps. Distribution means add another dimension to the process. A good logistician knows there are three default means of distribution—ground, air, and sea. Each of these three categories of distribution means have multiple included options as well. The distribution network links resource locations with the requirements zones. Logistics planners should use confirmed capabilities to define their unit’s operating areas.

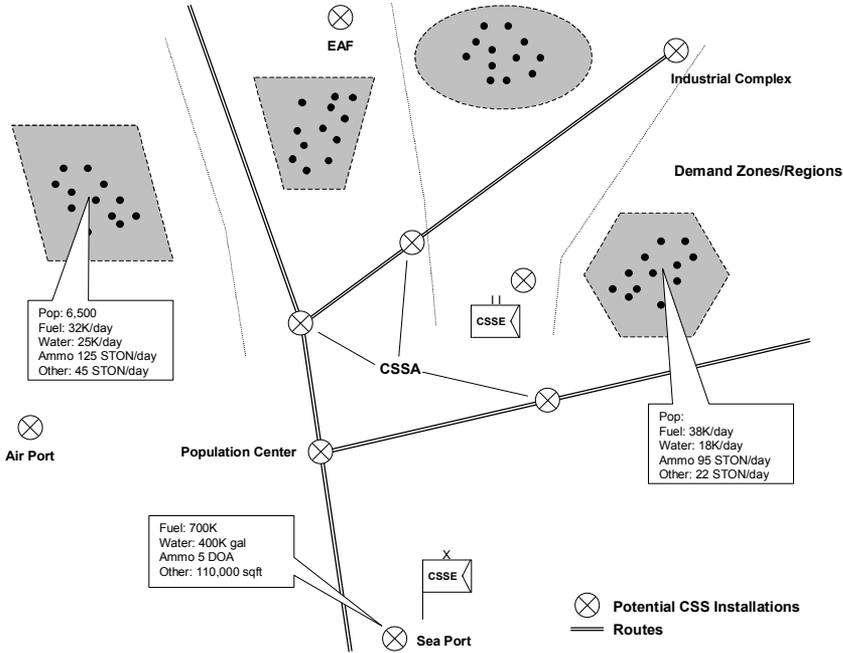


Figure 2-1. Conceptual logistics system.

Visualizing the logistics system in this way helps the CSSE commander simplify a complex problem and allows for developing an intelligent and informed COA for logistics support. Commanders should use their CBAE and commander’s guidance to articulate this vision to the operational planning team (OPT). As the OPT progresses through the functional and detail levels of planning, the commander’s vision will be shaped into a COA for logistic support (graphic and narrative) and ultimately into a concept of operations and an operations overlay.

The visualized logistics system can be plotted on map sheets or automated tools (e.g., Command and Control Personal Computer (C2PC)) as a CSS operations overlay. It should be refined as the OPT moves through the planning process. Industry makes extensive use of this conceptual model to determine its support regions, much like plotting consumer requirements over zip codes. Requirements are plotted within an area box/circle around supported unit(s) populations (i.e., single or multiple regimental combat teams, a major subordinate command headquarters, an engineer group). Terrain and physical infrastructure assist in the determination of demand zones or regions.

When using C2PC, a requirements rollup text box can be manually inserted near the MAGTF's supported unit(s) icon. The same method can be used to insert a capabilities rollup text box near the MAGTF's supporting units. Samples of these text boxes are depicted in the CSS operations overlay section of this pamphlet.

2003. Essential Elements of Logistics Estimates

Commanders control battlefield tempo by making and executing decisions faster than the enemy does. Therefore, commanders must always strive to optimize time available. **They must allow reasonable time for staff estimates and estimates of supportability to be completed.** *Without them, the commander's war game results will be suspect and may lead to dangerous conclusions.* Commander's must be comprehensive and visualize their end state. The estimate process requires a clear understanding of weather and terrain effects and, more importantly, the ability to visualize when, where, and with whom key battles, times of intense combat, and the force's decisive action will be fought. **Estimates must be as thorough as time and circumstances permit.** *The commander and staff must constantly collect, process, and evaluate information.* They update their estimates:

- When the commander and staff recognize new facts.
- When they replace assumptions with facts or find their assumptions invalid.
- When they receive changes to the mission or when changes are indicated.

- When requirements or capabilities change.
- When COAs are modified.

Estimates of supportability for the current operation can often provide a basis for estimates for future missions (sequels) as well as changes to current operations (branches). They must support the commander's battlefield visualization, his operational design and battlefield framework. The commander's vision directs the end-state. Each subordinate unit commander must also possess the ability to envision the organization's end state. Estimates of supportability confirm the realm of the possible in relation to that vision.

The commander and his staff use staff estimates and subordinate unit's estimates of supportability to look at possible solutions to specific operational missions and requirements. See Figure 2-2 on page 8. These estimates can form the basis for the annexes, appendices, and tabs to operation plans and orders.

a. Personnel Estimate

The personnel planners (G-1) and health services support planners (G-4) prepare the personnel estimate, which is an analysis of how all human resources and personnel factors impact the individual Marine and unit effectiveness before, during, and after the mission. It includes a current overall personnel status of the organization, its subordinate units, and any attached or supporting elements. Personnel status includes assessments of the following tangible and intangible factors:

- Patient evacuation plan (medical evacuation and medical regulation plans). Health service support (HSS) personnel contribute this plan.
- Unit-strength management (Personnel statistics/time-phased force and deployment data).
- Personnel replacement plan (G-1/G-3).
- Unit/individual Marine readiness (G-3/status of resources and training system).
- Organizational climate (commander/battle staff).
- Cohesion.
- Discipline, law, and order.

The personnel estimate predicts losses (where and when losses could occur) and when, where, and if such losses could cause the culmination of an operation. It contains the personnel and health services support planners conclusions and recommendations about the feasibility of supporting major operations and other specific tactical missions.

The generic staff estimate format, shown below, standardizes the way staff members construct estimates. The G-2 (with input assistance from all staff members) will still prepare and disseminate the intelligence preparation of the battlefield as separate and continuously updated products.

1. MISSION. Restated mission resulting from the mission analysis.

2. SITUATION AND CONSIDERATIONS

a. Characteristics of the Area of Operation

(1) **Weather.** How will different military aspects of weather affect specific staff area of concern and resources?

(2) **Terrain.** How will aspects of the terrain affect specific staff areas of concern and resources?

(3) **Other Pertinent Facts.** Analyses of political, economic, sociological, and psychological factors and infrastructure, as they relate to the area.

b. Enemy Forces. Enemy dispositions, composition, strength, capabilities, and COAs as they affect specific staff area of concern.

c. Friendly Forces

(1) Friendly COAs.

(2) Current status of resources within staff area of responsibility.

(3) Current status of other resources that affect staff area of responsibility.

(4) Comparison of requirements versus capabilities and recommended solutions.

(5) Key considerations (evaluation criteria) for COA supportability.

d. Assumptions

3. ANALYSIS. Analyze each COA using key considerations (evaluation criteria) to determine advantages and disadvantages.

4. COMPARISON. Compare COAs using key considerations (evaluation criteria). Rank order COAs for each key consideration. Comparison should be visually supported by a decision matrix.

5. RECOMMENDATION AND CONCLUSIONS

a. Recommended COA based on the comparison (most supportable from specific staff perspective).

b. Issues, deficiencies and risks with recommendations to reduce their impacts.

Figure 2-2. MAGTF staff estimate format.

b. Logistics Estimate

The G-4 prepares the logistics staff estimate, which provides an accurate and current assessment of the CSS situation of the organization, its subordinate units, and any attached or supporting elements. The logistics estimate is an analysis of how service support factors can affect mission accomplishment. It contains the G-4's conclusions and recommendations about the feasibility of supporting major operational and tactical missions. This estimate includes how the logistics functional areas of supply, transportation, services, maintenance, general engineering, and health services affect various COAs.

2004. GCE/ACE Logistics Estimate

At the GCE/ACE level a logistics staff estimate is an analysis of logistic factors affecting mission accomplishment. GCE/ACE logistics planners use these estimates to recommend COAs and to develop plans to support selected concepts of operation. These estimates, prepared by the logistics and personnel sections, are rarely formal, written documents. They may only address the key concerns of the GCE/ACE logistics planners. These estimates may focus on only critical areas (status of supply Classes I, III, and V, etc.) and the operational status of mission essential equipment (amphibious assault vehicles (AAVs), attack aircraft, etc.).

Other MAGTF logistics planners can play an important role in the GCE/ACE estimate process. The MAGTF G-4 and CSSE operations officer should work with GCE/ACE logistics planners to identify information needed to support logistics estimate preparation at the MAGTF and CSSE.

The following are typical questions that should be answered at the GCE/ACE level:

- What is the current and projected status of maintenance, supply, and transportation?
- How much of what is needed to support the operation?
- How will it get to where it is needed?
- What external support is needed?

- Can the requirements be met using our organic resources or are other resources/techniques necessary (CSSE/HNS/contractors)?
- What are the shortfalls and negative impacts?
- What GCE/ACE COAs can be supported?

For aviation, sustainment is determined in three key areas:

- Marine aviation logistics support program packages.
- Aviation ordnance, Class V (A), based on sorties/targets.
- Class III (A) (bulk) for aircraft and aviation ground support equipment operations.

Aviation ordnance requirements are target driven. The driving factor in determining the quantity and types of munitions is the aircraft sortie and the aircraft standard combat load of the sortie, which is reflected in the joint air tasking order (ATO). The standard combat loads that are eventually depicted on the joint ATO (by type/model/series aircraft) are the result of a joint targeting process. The products of these processes (targeting and joint ATO) determine the quantities and types of aviation ordnance needed by day and by aircraft type. **The aviation concept of operations, with estimated sortie rates and planned standard combat loads for those sorties that are drawn out during the COA development and wargaming steps of the MCPP, should drive the initial estimation of Class V (A) issue and sustainment.** Aviation logistics department personnel participation in the OPT is important for the ACE and the MAGTF.

Part III

CSSE Planning

Logisticians have to take into account the supported force's requirements, the supporting force's capabilities, and the physical infrastructure of the battlespace within which they will conduct operations. The logistician must also take into account the MAGTF's AO and the CSSE's area of interest. The characteristics of the area of interest may help or hinder the execution of any support mission.

A logistics system designed to support a force's demand requirement at 100%, when running at 100% itself, has no flexibility, hence no ability to adjust to unexpected battlefield developments. The designed logistics system—the COA for logistics support—should give the CSSE, and thus the MAGTF commander, the most flexibility that can be designed into the system. Redundancy and flexibility generate options for the commander, they give the commander choices.

Unlike other elements of the MAGTF, where options are generated for the commander by multiple COAs, the CSSE usually designs a single COA that is optimized for throughput. It should use multiple CSS installations and multiple methods of distribution to sustain the force. All potential CSS installations and usable host nation physical infrastructure should be identified in the planning process so that they may be incorporated into the logistics system as required. This process enables the logistics planner to forecast or predict where and on what time schedule the logistics system could be extended to continue support for the maneuvering force.

With that tool in hand, the logistician can both nominate infrastructure for inclusion on the restricted or protected target list and identify when and under what conditions the logistics system may be vulnerable to enemy actions. Thus the planner can highlight where appropriate force protection measures must be taken to protect those critical vulnerabilities, which are in effect enemy high pay-off targets.

The warfighting functions of fires, maneuver, command and control, intelligence, and force protection sometimes receive short shrift from logistics planners. They allow logisticians to look at all aspects of the battlespace, synchronize their efforts with other elements of the MAGTF, and ensure nothing is left to chance. Plans and orders must demonstrate an understanding of the importance of synchronizing maneuver, intelligence, fires, command and control, and force protection measures available across the MAGTF.

The system described on the pages that follow only serves to amplify the doctrine discussed in MCWP 5-1, *The Marine Corps Planning Process*. The discussion fills the void identified by logistics planners in the operating forces. Logisticians have struggled to make a direct application of the MCPP to the important and unique missions that traditionally fall to the CSSE.

This system does not delete or replace any element of the MCPP. It does, however, expand the capabilities versus requirements analysis introduced in the MCWP 5-1 as the estimate of supportability. The estimate of supportability is discussed in the first four steps in the planning process. It is an extremely important element to logistics planning.

This approach to planning support for an operation also recommends that the CSSE concept of operations not be written until the MAGTF commander and his main effort commander have war gamed a feasible, attainable, supportable COA (i.e., one that is supported by a detailed estimate of supportability) and have approved it for execution.

The CSSE's COA for logistics support of the MAGTF COA is designed to support the chosen concept of operations. The paragraph below provides an overview of how the steps of the planning process flow together, without wasted effort, and assist in the production of a CSSE concept of operations. All products produced in one step are used in the next step, generating tempo in the planning process.

Admittedly, logistics planning can be the most time consuming of all planning processes. It is imperative that logistics planner's operate efficiently and that their efforts flow smoothly toward the desired end state, not inhibiting the completion of the process. The product is not the most important element of the planning process, but the process itself. It

is the process that gives us facts on supporting unit capabilities and supported forces requirements. It is within the process that the physical infrastructure of an AO is discovered and its usable nodes and installations integrated into a redundant and flexible logistics system that provides the commander with choices and options he can use during the execution of his combat mission. It is the process that avails the commander information on which elements of infrastructure he wants protected from destruction and where his logistics system may be vulnerable to enemy actions or the unpredictable nature of weather. It is the process that generates tempo and helps us turn inside of our enemy, generating the conditions that leave him on the horns of a dilemma.

MCWP 5-1 tells planners that mission analysis is fundamental to the planning process. The mission analysis products flow into the logistics estimate of supportability format, restating the CSSE mission, CSSE commander's intent, and laying out the specified, implied, and essential tasks in a sequence of critical events envisioned to occur in the course of the battle, engagement, or campaign. Facts and assumptions resulting from the mission analysis are listed against the framework of the six logistics functional areas. This process captures all that logistics planners currently know and don't know in an easily referenced format.

The logistics situation paragraph of the estimate of supportability document, supported by the detailed calculations included in the logistics functional area annexes, describes the capabilities versus requirements metric that must be solved by the logistician daily. The annexes provide detailed computations for requirements important to the supported unit(s). The summary paragraph of the annexes describes the supportability of each functional area, the trade-offs, risks, and proposed solutions to shortfalls. This process leads to the heart of the logistics planning process, the development of a CSSE COA for logistics support (and the associated MAGTF concept of support). The logistics estimate of supportability products flow into the COA for logistics support narrative matrix, capturing all important COA information in an easy to read format.

The COA for logistics support should be a multi-site, multi-distribution mode logistics system that is optimized for throughput and over-built for capacity to allow for the unpredictable nature of combat. It should account for the distribution system (*CSS installations and distribution methods*)

and the command and control (*task organization and mission assignment*) of the force. Mission assignments infer responsibilities for the assigned CSSE and supported units. Resources are allocated based on these mission assignments. The COA for logistics support should be wargamed to validate the estimate process and adjustments made if required.

Once the COA narrative matrix and/or synchronization matrix is revised, based on wargaming results, the commander evaluates his options and designates a primary or most efficient path through the proposed system, establishing some installations and holding others in reserve, designating some distribution methods and holding others for unexpected requirements or developments. His decision will most likely be based on optimal throughput capability, flexibility and redundancy. The chosen COA, with its narrative and accompanying graphic, provides the blueprint for the CSSE concept of operations and the foundation for the MAGTF concept of support.

Rarely will the MAGTF and its subordinate commands plan under ideal conditions. If they were to be able to, the following vignette details the most advantageous combination of actions for CSSE concurrent planning with the MAGTF.

- The MAGTF completes its mission analysis first. The CSSE begins its mission analysis incorporating the MAGTF's mission analysis products.
- The MAGTF concurrently begins COA development. Before the CSSE begins COA development, the MAGTF should complete its COAs.
- The MAGTF will produce a COA narrative for each of its proposed COAs. It should also produce initial supporting concepts to assist the major subordinate commands in developing their COAs. The initial concept of support produced by the MAGTF OPT should mention resource, battlespace, and task allocation to support the goals of extending operational reach, increasing the endurance of the force, and generating tempo. It is the framework from which the CSSE concept of operations, and the ACE and GCE concepts of support is derived. The MAGTF concept of support—like the MAGTF concept of maneuver—requires significant input from the major subordinate commands before it can be finalized in orders development.

- The CSSE will develop a single flexible, redundant, and optimized COA rather than the multiple COAs the ACE and GCE produce to garner the same option base for a commander's decision. The CSSE begins the COA for logistics support development process with the development of a logistics estimate of supportability. It is completed with a physical network analysis and the development of a description of options as reflected in a COA graphic and narrative.
- Once the CSSE completes its COA development, the MAGTF can conduct a war game capable of producing legitimate results.
- Once the MAGTF commander has made his decision, the CSSE can war game its planned COA against the MAGTF COA; the MAGTF's and the main effort's decision points; forecasted decisive actions; and anticipated enemy actions, terrain, and weather related actions. This allows the CSSE commander to make a reasoned decision.
- Once that decision is reached a detailed CSSE concept of operations can be written that describes the CSS organizations, CSS installations, mission assignments, and resource base that will be established to support of the MAGTF concept of operations.
- With this information, the MAGTF can complete its concept of support for the MAGTF and complete orders development. A complete MAGTF order allows the CSSE to complete its order.
- The MAGTF transition adds finality to the process and confirms the MAGTF commander's mission, intent, and purpose, and the CSSE's mission and tasks. The CSSE transitions its order to its subordinates and supported units, as well as conducts a confirmation brief with the MAGTF commander and staff.

This page intentionally left blank.

Part IV

Mission Analysis

The commander analyzes the mission and intent two levels up to understand his role and responsibilities within the overall operation. This understanding allows him to determine who is supporting him, who he is supporting, the purpose of the operation, his task and purpose, and the desired end state.

4001. Introduction

Successful mission analysis requires prior preparation, professional competence, and the identification of all essential tasks. The staff should be organized and prepared to plan. All documents related to the mission, AO, and area of interest, (e.g. standing operating procedures (SOPs), operation plans, doctrinal publications, technical manuals, and reference materials) should be available to begin mission analysis. A thorough mission analysis helps focus the efforts of the commander and staff, saving time and increasing tempo.

4002. Issues for Consideration

The must be understood that the CSSE OPT is conducting concurrent planning with the MAGTF OPT in definition only. The MAGTF OPT must complete each of the MCPP steps prior to the CSSE OPT realistically being able to begin that step. The nature of the MCPP infers that the major subordinate commands within the MAGTF will be at least one step behind the MAGTF OPT throughout the planning process.

The following is a methodology for logistics planners as they go through the decisionmaking process. As part of the process, the five basic questions logistics planners and operators should always be able to answer are:

- Where are we on the battlefield?
- Why are we here?
- How do we support from here?
- How do we get support from here?
- When, to where, and in what sequence do we displace to ensure continuous operations?

Prior to CSSE mission analysis and while the MAGTF OPT is in mission analysis, the CSSE OPT should—

- Orient the commander for his CBAE brief to the CSSE OPT.
- Use the CSSE LNO to the MAGTF OPT to gain situational awareness and insight on the MAGTF's proposed purpose.
- Begin an initial database search and start calculations for estimate of supportability.
- The CSSE commander should draft an initial intent based on the information he has received from the MAGTF commander and his LNO to the MAGTF OPT.
- The S/G-2 should begin the intelligence preparation of the battlespace (IPB) for the CSSE with a focus on battlefield architecture, the logistics infrastructure, existing host nation capabilities, and characteristics of the area of interest that may affect the logistics mission.
- The CSSE medical planner should begin collecting medical environmental disease intelligence, and begin identifying possible countermeasures.

Although logistics may set the limits on operational capabilities, mission analysis should be conducted with an attempt to generate tempo, maximize operational reach, and increase the endurance of the force. Conduct a detailed mission analysis using the MAGTF commander's mission analysis products, principally his CBAE, refined intent, and approved mission statement.

The CSSE commander should be prepared to start the process with a thorough commander's orientation by issuing his CBAE and commander's initial guidance.

Since the CSSE is in general support to the MAGTF, the MAGTF or the MAGTF's main effort will largely set the battlespace and center of gravity (COG) (enemy and friendly). However, the CSSE commander will have to produce CSS unique commander's critical information requirements (CCIRs) and produce his own intent for his forces.

The CSSE commander's initial guidance may include; requests or warnings about weather patterns or phenomenon that could impact logistics operations (shamals, typhoons, monsoons, tidal ranges), desired actions at ports and airfields, footprint required ashore (terrain management guidance), desired throughput rate, expected/projected stockage levels (i.e., anticipated controlled supply rates (CSRs) versus required supply rates (RSRs)). A CSSE commander's guidance may also designate a main effort for CSS. The main effort can be a subordinate organization, function, or critical capability. Designating a CSSE main effort helps to drive prioritization of requirement decisions and focuses the CSSE efforts to enable the success of the MAGTF's main effort.

The commander must be considering logistics shaping (size, shape, location, concept of operations) now. The logistics effort must be integrated; it cannot just be allowed to happen over time. Will there be a need take specific operational actions to expand logistics capabilities in order to support the decisive action? What are the logistic characteristics of the AO and the area of interest? What is the logistics infrastructure of the battlefield (an IPB term that helps identify what exists on the battlefield and how it may be put to use)? Logistics intelligence (the CSSE IPB and associated intelligence information) is specific intelligence information that assists logistic organizations in mission accomplishment. It focuses on the infrastructure in the area of interest, which may extend back to the U.S. for the logistician. It is largely environmental information; it is focused toward logistics requirements, and is not enemy information exclusively. It answers the question "How weather, enemy, and terrain would affect logistics operations?"

Within the IPB, and as a part of evaluating the threat and determining threat COAs, the CSSE should identify high-pay-off targets that the threat will likely identify to support their concept of operations. These could either be key terrain in the rear or close areas or specified CSS activities, installations, or organizations. The CSSE should take the necessary force protection and precautionary actions.

The CSSE OPT will usually discover that there are few specified tasks in the higher operations order. Most of the CSS tasks are implied and will take the intuitiveness of a mature OPT to extract them.

A CSS mission statement has three mandatory elements. These add a second “who” to the standard five “W’s” by identifying the supporting unit, defining the specific support mission, and identifying the supported unit.

The following are samples of CSSE mission statements—

On order [when], 1st Force Service Support Group (FSSG) [who] conducts general support (GS) and direct support (DS) combat service support operations [what] in order to support the attack [why] of I MEF forces [who] to the limit of advance [where]. On order, 1st FSSG conducts logistics over-the-shore (LOTS) operations in the vicinity of Houston in order to support continued movement south to the limit of advance.

On order, 3rd FSSG conducts landing support operations, establishes a beach support area, and conducts CSS in support of III MEF in order to facilitate ship-to-shore movement, subsequent operations ashore, and the defeat of enemy forces in zone. On order, 3rd FSSG conducts LOTS operations to sustain III MEF forces conducting humanitarian assistance operations in support of the local populace.

On order, Brigade Service Support Group (BSSG) 2 conducts GS health service support operations in support of designated non-governmental organizations and private volunteer organizations in order to prevent the spread of disease beyond the current containment zone.

On order, Marine Expeditionary Unit Service support Group (MSSG) 13 conducts DS maintenance support operations with mobile support teams (MSTs) in order to facilitate Battalion Landing Team (BLT) 3/5s administrative road march from Anzio to Rome.

On order, Combat Service Support Detachment (CSSD) 21 conducts combat service support operations in support of Regimental Landing Team (RLT) 2 and 6 in order to defeat the 210th Azeri Tank Division in zone. On order, continue CSS operations in support of RLT 2 and 6 north to the division limit of advance.

On order, MCSSD 51 conducts GS engineer support operations in order to enable 1st Marines to control key bridges on Main Supply Route (MSR) Blue.

On order [when], MCSSD-11 [who] conducts DS combat service support operations [what] in support of RLT 1 [who] in order to defeat the 101st Azeri Tank Brigade [why] in zone [where]. On order, continue DS CSS operations in support of RLT 1 north to the division's limit of advance.

At the completion of mission analysis, the CSSE commander should issue a refined commander's intent along with his mission statement.

4003. Relationship to Other Steps in the MCPP

This step is the first step in the MCPP and lays the foundation for functional logistics planning. The result of mission analysis is a mission analysis briefing to the commander defining the battlespace in logistics terms and begins the process of generating options for the commander.

This page intentionally left blank.

Part V

CSSE Logistics Estimate of Supportability

The outputs from mission analysis (facts and assumptions, area of interest, enemy and friendly COGs, support requirements) and a MAGTF COA are needed to develop the logistics estimate of supportability. While the MAGTF G-4 and the CSSE LNO to the MAGTF OPT prepare staff estimates, the CSSE OPT prepares an estimate consisting of *significant facts*, *required events*, and *conclusions* based on analyzed data. It addresses the questions, “What do we know; what do we have; and what does that mean?” The estimate of supportability is a comparison of supported unit requirements measured against supporting unit capabilities. It gives the supporting unit commander the wherewithal to field questions on mission supportability accurately, as well as empowering him to address; combat operations required to facilitate logistics positioning and/or shaping, and protected target nominations.

5001. Introduction

The CSSE’s logistics estimate of supportability is an analysis of logistic factors affecting MAGTF mission accomplishment. CSSE logistics planners use these estimates to recommend a logistics COA and to develop plans to support selected MAGTF COAs. They may only address key concerns of the CSSE logistics planners. Critical areas, such as the status of supply Classes I, III, and V, and the operational status of tanks, LAVs, attack helicopters, and other combat or mission essential vehicles/aircraft may be the limit of the analysis. On the other hand, the analysis may be very detailed and thoroughly cover all logistics functional areas. A well-constructed estimate forms the basis for a viable COA for logistics support of the MEF COA. Failure to make complete estimates and projections can lead to errors and omissions when developing the COA for logistics support, wargaming, and validating the CSSE COA.

The estimate process is a continuation of the mission analysis process. It is referred to in the mission analysis, COA development, COA war game, and COA comparison/decision steps of the MCPP demonstrating its value and the need to keep it current. This methodology is based on the supported unit and its needs. Logistics planners should address the following when accessing an assigned mission or task: (supported unit) **requirement**, (supporting unit) **capability**, **shortfall** (if any), **analysis**, and (problem) **solution**. This methodology can be used throughout the decisionmaking process.

a. Requirements

1. What method is used to determine logistics requirements? (Personnel density, equipment density, planning factor, operating tempo, combination, etc.?)
2. What are the sources of the requirements determination calculations? (OPLOGPlanner, Log 2000, MCRP 4-11A, FM 101-10-1/2, the G-1/G-4 *Battle Book*, historical data, logistics estimator worksheet etc.?)
3. What is your customer list for this requirement? Will it change during the operation?
4. Identify implied logistics tasks based on the tactical plan. What are the ramifications of river crossings, pauses, deep attacks, etc.?
5. Is there a nuclear, biological and chemical (NBC) threat?
6. What do you need?
7. How long will you need it?
8. Where do you need it?
9. What do you need to put it there? (Fuel bladders/bags, rough-terrain container handlers, forklifts, cranes, etc.?)
10. How will you get it there?
11. When do you need it there? How long will it take to get it there?
12. How soon will it be available to move there?
 - Where is it coming from?
 - What do you need to do with it before moving it where you need it? (Does it have to be containerized, broken down, segregated, separated, disassembled, configured, or reconfigured before movement?)
 - How long will that take?
 - What are the requirements for that?
13. Does it have to move again after it gets there? Who will move it from there?

14. What are the competing demands for this requirement?
15. What is required to off-load it when it gets there?
16. Does anything need to be done with it once it gets there? (Does it have to be unpacked, assembled, etc.?)
17. What has to be done to move it once it is there?
18. Does this requirement have special employment considerations? (Does it require a large, level area of land or a fresh water source; be located near an MSR; need refrigeration; require dedicated transportation; etc.)?
19. How often will the commodity, supply, or service be required? How often must it be replenished?
20. Does the requirement have preparatory activities? (Does it need engineers to berm a bag farm, airfield matting for forward arming and refueling points (FARPs), or road and pad construction for a CSSA?)
 - What is the expected duration of the required preparation?
 - How do you request the preparation and who approves it? (Does engineer work have to be approved through channels?)
 - What support is required for the preparatory activities?
 - Are there options?
21. Have you identified terrain requirements to meet mission requirements? (Aviation bed down sites, CSSA sites, ammunition supply point (ASP) or ammunition transfer point (ATP) sites, fuel farm sites.)

b. Capabilities

1. What available units can fulfill the requirement?
2. What is the mission assignment of the unit that has the necessary capability? (Are CSSEs supporting regimental combat teams (RCTs) or is there a GS CSSE supporting the division and are CSSEs designed based on a supported population or equipment density lists?)
3. Does that capability exist within the MAGTF?
4. Is more than one unit required to provide the capability?
5. What are the overall receipt, storage, and issue requirements for my area of support for this particular commodity, supply, or service?
6. Are receipts and issues exclusive capabilities? (Can a unit receive, store, *and* issue 'X' of a particular commodity, or can it only receive *or* store *or* issue *or* re-warehouse 'X' of a particular commodity?)
7. Will this capability be used to weight the battle logistically?

8. What is the total short ton (STON)/gallon/other distribution capability by mode? Line-haul? Local haul? Other? What distribution planning factors were used?
9. How many locations require this capability?
10. Are any units with this capability already committed?
11. Are any units with this capability due in? When?
12. Do units depend on other units to function? (To perform their missions, some CSSDs require heavy-equipment transporters (HETs) or bulk fuel transport support or the fuel farm of a GS CSSD.)
13. Can a unit deploy elements (sections or platoons) to place the capability where it is required?
14. Does the unit have unique management/employment considerations?

c. Comparison/Shortfall

1. If there is no shortfall, go to the *analysis* portion of this methodology.
2. Which requirements exceed capabilities?
3. For requirements that exceed capabilities, is it overall or in a particular area, region, or time?
4. How much is the shortfall in terms of units of measurement (STON, gallons, square feet)?
5. What does the shortfall equate to in terms of DOS?
6. At what point in the battle is the requirement expected to exceed the capability?
7. What is the type of shortfall? Is it a supply availability shortfall, a resource shortfall (equipment, MHE, personnel, facilities, man-hours, etc.), or a distribution shortfall?

d. Analysis

The analysis process has to occur for all support operations even if there is no shortfall. The logistics planner has to determine how to support the operation.

1. What is the earliest the support operation can begin?
2. What is the latest the support operation can begin?
3. Is it better to be early or late?
4. What is the purpose of the support? (Is the purpose to build stocks at a CSSA, to sustain a force for a given period of time, or to resupply a user?)

5. Will support be provided from a fixed location or from a forward logistics organization? (From an ISB, FOB, FARP, RRP, MST, etc.?)
6. What is the shortfall's significance?
7. What is the shortfall's potential impact?
8. What is the shortfall's expected duration?
9. What caused the shortfall (battle loss, time-phased force deployment sequence, etc.)?
10. If the shortfall is a **supply availability shortfall**, consider the following:

- Is the shortfall only at this level or is it at higher levels as well?
- Is it a result of higher commands' efforts and support priorities?
- Is the supply available at other echelons and, if so, where? How long will it take to get here?
- Is there an acceptable alternative, a substitute, or an alternative source of supply?

11. If the shortfall is a **resource shortfall** (equipment, MHE, personnel, facilities, man-hours, etc.), consider the following:

- Can similar resources be diverted or obtained from somewhere else?
- Is host nation support a viable alternative?
- How specialized is the shortfall resource? (For example, it is easier to train a mortuary affairs specialist than it is to train a doctor. It is easier to find an automotive mechanic than it is an M-1 fire control specialist.)
- Can a secondary MOS be used?
- Does a sister service or coalition partner have the capability?

12. If the shortfall is a **distribution shortfall**, consider the following:

- Is the shortfall due to a lack of assets or to a time-distance problem?
- Does the shortfall capability require special distribution requirements?
- Are there any alternative distribution modes?

- What are the alternative mode requirements? (For example, a pipeline requires continuous pump and hose/pipeline maintenance and engineer support to lay the pipeline, etc.)
- Are host nation distribution assets available?
- Are sister Service/coalition assets available? Are they compatible? (For example, European and SWA host nation fuel tankers are metric and require a coupler adapter to interface US tankers or bags.)
- Are there any airfields, ports, or helicopter landing zones near the requirement?

13. How will logistics capabilities be echeloned forward? Which units will be tasked to establish forward logistics bases?

e. Solutions

1. Determine the most workable solutions based on analysis.
2. Integrate with other support operations and commodities.

To put this methodology into context, there must be some continuity between the tactical decisionmaking process and the logistic planning process. Each of the model's categories (requirements, capabilities, shortfalls, analyses, and solutions) must have any associated, necessary, and valid assumptions stated up front in the planning process.

5002. Issues for Consideration

Figure 5-1 shows the relationships between requirements and capabilities that a CSSE must consider as it builds a COA for logistics support. The logistics estimate of supportability helps identify significant facts, required events, and your conclusions based on analyzed data. Logistics planners can visualize the **organizations, installations, and mission assignments** that must overlay the three variables (command and control, distribution system, and resources) to design an optimized logistics system. These variables so directly overlap that as they complete the logistics estimate of supportability, the COA for logistics support will largely fall out of the process. Keep in mind, this creates expectations for what the CSSE says it can support.

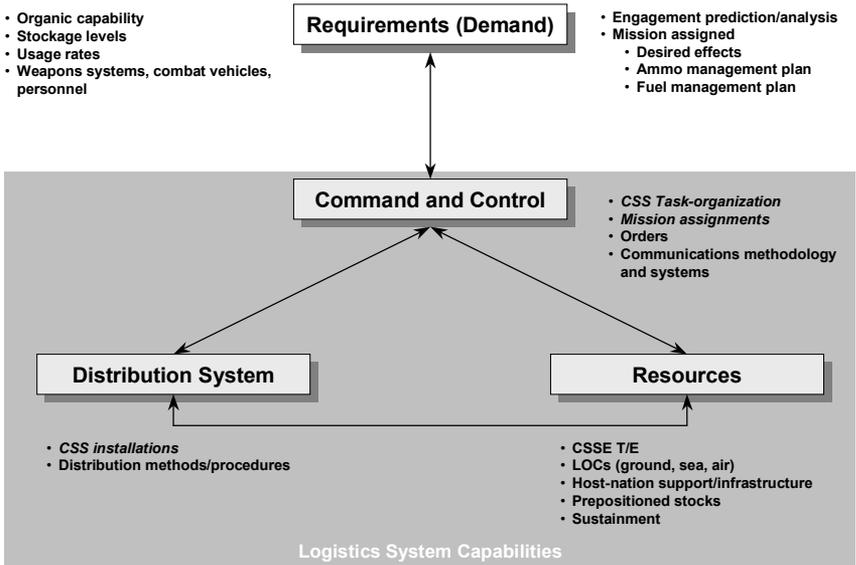


Figure 5-1. Logistics estimate of supportability.

Prior to CSSE logistics estimate of supportability:

- The CSSE OPT and its SMEs should complete an initial estimate of supportability based on initial data base search done prior to mission analysis.
- Once the MAGTF OPT has completed its COA development the CSSE OPT should complete its estimate of supportability.
- The initial COA for logistics support should begin to become apparent as the estimate of supportability nears completion. The initial COA for logistics support should be captured and forwarded to the CSSE LNO at the MAGTF OPT.

The following are typical questions that should be answered by the CSSE OPT while completing the estimate of supportability.

- What is the current and projected status of maintenance, supply, and transportation?
- How much of “X” is needed to support the operation?
- How will “X” get to where it is needed?

- What external support is needed?
- Can the requirements be met using organic resources or are other techniques necessary?
- What are the shortfalls and negative impacts?
- What MAGTF COAs can be supported?

5003. CSSE Logistics Estimate of Supportability Format

The following is a simplified format for preparing a CSSE logistics estimate of supportability. This format provides a method for determining requirements, comparing the requirements to current capabilities, and identifying shortfalls. It uses the six logistics functional areas to provide detail to the analysis of MAGTF support requirements.

This format can be used by the CSSE OPT to develop a COA and can supplement the MAGTF G-4 logistics estimate. This format is useful for logistic analysis and subsequent wargaming of the MAGTF and main effort's COAs, and by default takes the CSSE planner to a suitable, feasible, optimized initial COA. There is a completed sample at Appendix E.

LOGISTICS/COMBAT SERVICE SUPPORT ESTIMATE TO OPORD 001

1. MISSION. Clearly state the mission of the MAGTF and the approved mission statement of the CSSE.

2. COMMANDER'S INTENT. Clearly state the MAGTF commander's intent. This paragraph is intended to provide direction for the CSSE OPT. It may be a synopsis of the CSSE commander's CBAE and commander's (logistics COA) planning guidance.

3. SPECIFIED, IMPLIED, AND ESSENTIAL TASKS. List all tasks determined to be specified, implied, and essential tasks during mission analysis. These tasks may need to be subdivided by phases or stages, depending upon the length and complexity of the MAGTF concept of operations and scheme of maneuver. These tasks form the basis for the initial analysis of tasks to be executed by the CSSE.

4. FACTS AND ASSUMPTIONS. List facts and assumptions derived from the CSSE mission analysis that are pertinent to the estimate. Facts are statements of known data concerning the situation, including available troops, unit strengths, and material readiness. Assumptions are suppositions about the current or future situation, which are assumed true in the absence of facts, and are required to continue planning. Assumptions should not wish away enemy capabilities or assume friendly capabilities. All assumptions not validated or eliminated in planning become logistics risks in execution. Facts and assumptions may be listed by the six logistics functional areas in paragraph 4. As the situation dictates, additional categories may include command and control, host nation support, Marine theater support agencies (e.g., MLC), other services theater support agencies, allied support information, and specific facts or assumptions about the infrastructure not covered elsewhere. Assumptions should not be confused with planning decisions which include planning factors used to support requirements, i.e. gallons, per man, per day; bulk fuel storage and distribution capacities, and critical munitions.

5. LOGISTICS SITUATION. Address each of the six functional areas of logistics as an annex. List the annexes with a short discussion (a brief synopsis of the major concerns) in the base document to provide a quick reference for COA comparison. This is your analysis and narrative.

a. SUPPLY. (See Annex A) Briefly address any major concerns.

b. HSS/PERSONNEL. (See Annex B) Briefly address any major concerns.

c. GENERAL ENGINEERING. (See Annex C) Briefly address any major concerns.

d. MAINTENANCE. (See Annex D) Briefly address any major concerns.

e. TRANSPORTATION. (See Annex E) Briefly address any major concerns.

f. SERVICES. (See Annex F) Briefly address any major concerns.

6. CONCLUSION. State whether or not the MAGTF mission is logistically supportable. Paraphrase major logistic problems and possible ways to overcome them. If it is addressed as a problem here it must be addressed in the appropriate annex.

The discussions contained in the annexes below focuses on the FSSG level. Some adaptation may be required for annexes at the BSSG and CSSD level.

a. Annex A, Supply

1. SUPPLY SUPPORT

a. CAPABILITIES. List status and capabilities for Class I, II, III(P), IV, VI, VII, X, water and services (mortuary affairs). Show any critical shortages for each class of supply. Capabilities should be consistent with the type or phase of the operation.

b. REQUIREMENTS. Show consumption rates, total consumption, and resupply rates for each class of supply listed above. Differentiate between supported unit prescribed load (i.e., organic hauling capacity) and supporting unit requirements (i.e., CSSE capacity to receive, store, and issue) for clarity.

c. SHORTFALL. Clearly address shortfalls and their impact on the mission for each class of supply. Briefly discuss possible ways to overcome shortfalls.

2. ORDNANCE

a. CAPABILITIES. List current Class V status, CSR, critical shortages, and ASP/ATP capabilities.

b. REQUIREMENTS. Show RSR versus CSR by day and the profile used. Only show ammunition that is impacted by the CSR. Other ammunition consumption rates or supporting data would be included in an appendix.

c. SHORTFALL. Address RSR shortfalls, when they will occur, and the impact on the mission. Also address distribution and resupply problems, if there are any. Briefly discuss ways to overcome shortfalls.

3. FUEL

a. CAPABILITIES. Show the current on hand status of Class III (B) in the MAGTF (in-ground storage, in-tankers, in-pipelines, OPDS). Depict GCE fuel assets, ACE fuel assets, CSSE fuel assets, and current on-hand OR fuel distribution rate for all. Address refuel capabilities, i.e.,

AAFS, TAFDS, HRS, HERS, ERS, numbers of rapid refueling systems (non-TAMCN kits), use of pipelines, railcars, aerial bulk fuel delivery systems (RGR), and collapsible drums. Availability of fuel types (MOGAS, JP8, etc.).

b. REQUIREMENTS. Show fuel usage by phase or other definable control measure for the MAGTF. See Table 5-1. Include mathematical calculations in an appendix.

LD TO PL APPLE	10 HOURS	200 KM	100,000 GALLONS
PL APPLE TO AP CUT	5 HOURS	100 KM	50,000 GALLONS
AP CUT TO OBJECTIVE	2 HOURS	50 KM	25, 000 GALLONS
TOTAL	17 HOURS	350 KM	175,000 GALLONS

Table 5-1. Fuel usage.

c. SHORTFALL. Clearly discuss fuel usage vs. capacity and identify the point where the MAGTF will run out of fuel if it does not receive augmentation. Also, discuss the impact of time/distance to known resupply points and the impact on the mission. Discuss possible ways to overcome the shortfalls.

b. Annex B, Health Services/Personnel

1. CAPABILITIES. List current personnel situation of the MAGTF, by battalion if necessary. List out critical MOS shortages, expected time and quantity of replacements (from personnel estimate).

2. REQUIREMENTS. Show loss data for the operation with expected RTD and WIA data, and total loss to the unit. Show all mathematical calculations in an appendix, to include combat profiles.

3. SHORTFALL. Analyze the impact of WIAs and RTDs on surgical companies, shock trauma platoons and aid stations, to include their ability to treat, hold, and evacuate. Discuss the impact of class VIII shortages on the mission of the surgical companies and shock trauma platoons. Include an analysis of total losses and expected replacements and their impact on the mission (done by the G-1). Also discuss possible ways to overcome shortfalls.

c. Annex C, General Engineering

1. CAPABILITIES. List current status/location of ground fuel storage systems by type and amounts on hand. List current status and location of water production and storage systems and amounts on hand. List current status of undeployed bridging. List the current status of road/runway repair/maintenance assets.

2. REQUIREMENTS. Show anticipated number of bridging assets required with number of feet of wet and dry gaps required to cross and/or tunnels to bypass.

3. SHORTFALL. Clearly address shortfalls and their impact on the mission.

d. Annex D, Maintenance

1. CAPABILITIES. Show current maintenance posture for the MAGTF combat systems using a matrix. List the critical class IX shortages that may affect the MAGTF, current and future maintenance priorities, repair times, recovery and evacuation policy and critical maintenance equipment shortages.

2. REQUIREMENTS. Use a matrix to show combat and critical logistic system losses and returns by day or by phase. See Table 5-2. Show systems whose losses are significant. Show other calculations in an appendix.

<u>VEH AUTH/OH</u>	<u>PHASE I FMC/%</u>	<u>PHASE II FMC/%</u>	<u>PHASE III FMC/%</u>	<u>TOTAL LOSS/FMC%</u>
M1 58/58	58/100%	52/90%	48/83%	10/83%

Table 5-2. Maintenance status.

3. SHORTFALL. Address the total vehicle losses in terms the commander can understand, i.e. tank company equivalents. Address the repair and return numbers based on workload for the RRP, CSSEs, MSTs, and MCTs, and their ability to meet requirements. Also, address the impact of Class IX shortages and the impact of losing recovery and evacuation assets.

e. Annex E, Transportation

1. CAPABILITIES. Show current status of supplemental transportation assets; who they are and their capability. Consider the weather and terrain and their potential impact on cargo carrying capabilities and mobility of vehicles. Address MSRs in the area, travel time and distance between key logistics nodes and movement priorities. Take into account coastal and inland waterway MSRs and movement of forces/supplies by assault support helicopters and tactical airlift.

2. REQUIREMENTS. Identify transportation requirements and shortfalls by phase. Transportation requirements should show class of supply, short tons, and number of pallets and number of trucks/planes/watercraft required to move them (should come from other annexes). Identify HET requirements based on the number of systems that need to be evacuated by phase. Identify requirements to move CSS assets.

3. SHORTFALL. Address all transportation shortfalls and their impact on the mission. The CSSE should address movement of itself with TSB (detachment) assets and the impact that movement will have on TSB's ability to perform other missions. The CSSE should address the movement of division assets by the division truck company and the impact that movement will have on the company to perform other missions. Address the status of the MSRs/ASRs and possible choke points or congestion points. Briefly discuss ways the shortfalls can be overcome.

f. Annex F, Services

1. CAPABILITIES. Show current services capabilities by location. Identify mobile capabilities. Provide details on the number of remains that can be processed per day and where they will be forwarded or interned.

2. REQUIREMENTS. Identify any financial, postal, or MWR type services anticipated by timeframe and location (may include laundry, shower, exchange, R&R requirements). Process human remains. Account for personal effects and submission to the supply system.

3. SHORTFALL. Clearly address shortfalls and their impact (if any) on the mission and morale of the force.

5004. Relationship to Other Steps in the MCPP

The CSSE logistics estimate of supportability spans mission analysis into COA development, and ultimately contributes to the development of a MAGTF concept of support. The result of the logistics estimate of supportability supplements the MAGTF staff estimate and is used for developing the COA for logistics support and the CSSE concept of operations. CSSE logistics planners can influence the MAGTF G-4 staff estimate process. The CSSE OPT should work closely with the CSSE LNO and G-4 representative within the MAGTF OPT to identify or respond to information requirements for support of the MAGTF planning effort. In return, this level of integrated planning also helps keep the CSSE OPT and commander abreast of the MAGTF commander's purpose and direction during the planning process.

Part VI

CSSE Course of Action for Logistics Support Development

The COA for logistics support is a broadly stated plan that supports the selected MAGTF COA. The MAGTF's initial concept of support should provide the framework for its development. It provides the CSSE commander with options for addressing possible solutions to specific missions and operational requirements. During COA for logistics support development, logistics planners use the outputs from mission analysis, commander's planning guidance, commander's intent, and the logistics estimate of supportability to develop a COA for logistics support, which in turn leads to the development of a concept of operations for the CSSE. The MAGTF, GCE, and ACE must address the development of a concept of support. Concepts of support address a unit's plan for the use of its organic (internal) logistics capabilities, ties and links to external sources of support, and how those capabilities will be used to meet the support requirements of that unit. The CSSE's concept of operations, the GCE's and ACE's concept of support, and the MAGTF G-4's integration of HNS, PWR, joint, and allied considerations and priorities form the basis for the completion of the MAGTF concept of support. Integrated logistics planning across the major subordinate commands can lead to consolidated support planning that demonstrates a complete understanding of how CSS will be provided to the force, eliminating overlaps, gaps, and misunderstandings.

6001. Introduction

A COA for logistics support should be designed around the conceptualized distribution system (CSS installations and distribution methods) and CSS command and control (task organizations and mission assignments)—the commander's vision (MCDP 4). Those conceptual ideas are refined through functional and detailed level planning. Logistics planners should design as much capacity into a logistics system

as is feasible within the physical constraints of the AO and area of interest. A planner knows that a logistics system will be constrained by the physical environment within which it is established. Every logistics system has an entry point into the AO. It has a limited number of main and alternate supply routes that exit the point of entry. Even with the advent of host nation support, there are a limited number of transportation assets (ground, air, and sea) available. Movement rates on MSRs are constrained by the terrain they cross. Mountain routes have different challenges than do desert or jungle routes, for example. That does not mean that some constraints cannot be overcome by other distribution methods. The use of ground, air, and sea transportation assets are part of the design process. Other constraints on the efficiency of a logistics system include command and control, critical occupational specialties, and the configuration and characteristics of the supplies and materiel itself. The below graphic demonstrates why planners need to build capacity into their logistics system. It is the total of its parts that creates the logistics system's capabilities, the **combat service support installations** plus **distribution methods** plus **task-organization** plus **mission assignments** (MCWP 4-11).

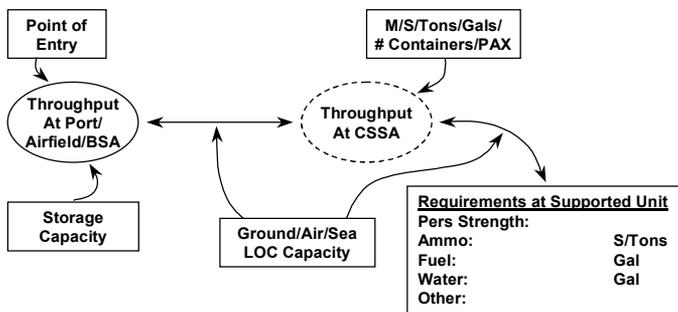


Figure 6-1. Physical network analysis.

In designing a logistics system, a method of determining the capability of the system must be addressed. A pipeline has been used to describe the logistics system. Every installation and method of delivery increases the diameter of the pipeline, thus increasing the capability of the system. This is a very simplistic model of a logistics system. Logistics planners are building a grid, a logistics grid, with multiple routes and methods of conveyance, used to move supplies and materiel from their source to the end user, end-to-end distribution.

Ground, air, and sea methods of distribution should be used through multiple established CSS installations throughout the AO to increase flexibility, mitigate the effects of weather on operations, and decrease reliance on any one distribution method or logistics node. Begin by identifying all nodes usable for logistics purposes within an AO. A thorough analysis of their throughput capabilities should be calculated. The distance or radius over which CSS can be delivered from an established installation should also be calculated.

If the operational reach of CSS forces extends to the next usable node, then a CSS installation can be established on that logistics node. If the operational reach of CSS forces does not extend to any known, usable node, then a CSS installation must be created to meet the assigned CSS mission. CSS installations (any type) can be established to fill gaps in host nation infrastructure, creating infrastructure where none existed and extending the operational reach of the force. These installations become usable nodes within the context of the logistics system.

The capabilities of this proposed system must be carefully analyzed. Task organizations will be built to effectively take advantage of the existing or created infrastructure. Mission assignments will align task organizations with infrastructure and supported units. After mapping together active CSS installations and identified, but inactive, usable logistics nodes within the infrastructure of the AO, the logistics planner can identify the *capabilities available* to meet the supported unit's *projected requirements*.

While still in the conceptual phase of planning, “demand zones” can provide a basis for task organization and mission assignment. Planners should group supported units requirements within the operational reach of a CSSE (a calculable support radius) to access the requirement at the end of the logistics system. It is against this “requirement” that the capacity of the distribution system is measured and using the logistics system variables, the “capability” of the system can be determined. If the supported units requirements change, then resource allocation, task organization, and/or distribution methods should be adjusted as well. A prioritization of effort should be formally tasked to the supporting unit commander and published to all units within the supporting unit's AO, whether that commander is assigned an operating area or just given a mission assignment. All units in the MAGTF should be aware of these

command relationships (mission assignments) and plan accordingly. CSSE commanders should follow the intent of mission assignments and report to their higher headquarters any new or unexpected units (new requirements) within their operating area or supported unit(s) AO. By so doing, conflicts of interest will be avoided, a prioritization of effort will be ensured, and resource allocation will be reinforced.

Some planners have suggested that the conceptual “demand zone” is equivalent to a “support zone”, and that a CSSE should be assigned responsibility for all MAGTF units within that zone. That may well be the case, however, that option has to be considered against a MAGTF commander who has weighted his main effort, and support for other units in that “zone” may not be allocated resources in the same manner as the supporting unit for the main effort. Demand zones, as used in the conceptual level planning effort, are fixed in place to assist in the determination of supported unit requirements. To suggest “floating” or “moving” zones is akin to a general support mission assignment, and carries the planner back to a CSS installations, CSS organizations, mission assignment metric.

A key and very important consideration in using “support zones” for logistics planning is that they focus on the supported units demand within that particular “zone.” Whether using “zones” or mission assignments, it is imperative that logisticians use a demand forecast to determine the requirements of the units they are supporting. Integrated and synchronized planning across the MAGTF can alleviate conflicting support requirements.

Capabilities and requirements information is an integral part of the estimate of supportability process and becomes crucial in COA logistics support development. The final step in designing a logistics system is to identify a primary or most efficient route through the variety of options the commander has when briefing the proposed system for approval/decision. This may entail a variety of distribution methods between identified installations, establishing or activating new installations as the situation dictates, adjusting the task organization, or modifying mission assignments to more efficiently meet the requirements of the assigned mission. Remember, a logistics system designed to meet 100% of the requirement of the supported force has no flexibility to respond to the unforeseen.

6002. Issues for Consideration

The CSSE must be reasonably complete with its estimate of supportability before it can produce a COA for logistics support and ultimately lend to the development of a MAGTF concept of support.

The MAGTF's finalized concept of support should reflect the CSSE concept of operations and other MSC and/or attachments concepts of support to explain how logistic assets will be organized and positioned to execute the mission and may include the planned employment of unit organic logistics capabilities, CSS forces, and HNS. Other considerations include the phasing and shifting of priorities; the focus of effort/priority of work; tasks, responsibilities, and support relationships; organization on the ground; potential displacements; and planned operational pauses.

A COA for logistics support should provide the commander with multiple options for addressing force sustainment. Factors that affect COA development include:

- Commander's planning guidance.
- Task-organization of CSS forces.
- Mission assignments (i.e., support relationships).
- CSS installations and locations.
- Command and control of CSS forces.
- The logistics main effort (function, unit, or capability).
- Supported unit requirements.
- Prioritization and resource allocation.

A point about relative combat power assessment: since the CSSE is usually a supporting effort in the overall campaign, it will not conduct a relative combat power assessment of the opposing forces combat service support elements and agencies. It will however, use the relative combat power assessment of the overall MAGTF and the MAGTF main effort to better determine support requirements and potential decisive actions or other places or times of anticipated heavy combat.

The CSSE, as a supporting effort, will carry the MAGTF COG as approved by the MAGTF commander. The CSSE may have critical capabilities (strengths), critical requirements, and critical vulnerabilities

(weaknesses) of the MAGTF's COG, but as a subordinate unit within the MAGTF, it will not carry its own COG. The CSSE COG will always be a flexible, responsive, optimized logistics system. The system's strength—and critical vulnerability—will almost always be how the distribution system, distribution methods, and C2 function, hence the focus on organizations, installations, and mission assignments (support relationships). Appropriate force protection measures should be taken to protect identified critical vulnerabilities, whether these are CSS installations or CSS units.

The logistics estimate of supportability uses the six logistics functional areas to integrate the analysis of MAGTF support requirements. It evaluates mission requirements in a detailed document that highlights the capabilities and limitations of the CSSE. The estimate compares capabilities and requirements. The possible COA for logistics support should begin to become apparent to the OPT once the estimate of supportability is completed.

If the main effort has produced a partial synchronization matrix as part of COA development, it can be a very useful tool in completing the COA for logistics support.

The OPT should produce an initial COA for logistics support and brief it to the CSSE commander for his approval. The COA could be a multi-site, multi-distribution mode approach to optimizing the throughput capabilities of the CSSE. As well, it could be single site, single distribution mode approaches to optimizing the throughput capabilities of the CSSE, or a combination of both options. This approach generates flexibility and survivability, which ultimately contributes to mission success. Each requires a different allocation of resources and a different level of resource management.

The CSSE commander should be expected to issue wargaming guidance at the conclusion of this brief.

The following table reflects the description of the options that are open to the commander. It can help OPT members capture information and make the transition from their estimate of supportability to a fully developed CSSE COA for logistics support. It helps capture key data and analysis points, such as the approved mission statement, main efforts, capabilities,

CCIRs, decision points. The estimate process feeds into the COA development process, providing essential information on combat service support nodes—physical infrastructure capable of supporting future operations—task organization, and mission assignments. By capturing the COA narrative in a matrix format, the range and description of options is laid-out in a single, easy-to-read document.

CSSE MISSION: At H Hour on D-Day, FSSG conducts landing support operations, establishes a beach support area and conducts CSS operations in support of MEF forces in order to facilitate ship-to-shore movement, subsequent operations ashore and the defeat of enemy forces. On order, conduct logistics over the shore operations to enable the introduction of follow on joint forces and theater sustainment.			
MEF COA PHASES	PHASE	PHASE	END STATE
MEF MAIN EFFORT	WING	DIVISION	FSSG
CSSE MAIN EFFORT	SPT 1	CSDD 11	BOG 1
MAGTF STRENGTH	7,000	12,000	10,000
MHG	200	500	200
ACE	2,500	3,000	2,300
GCE	3,500	7,000	6,000
CSSE	800	1,500	1,500
CSS INSTALLATIONS	BSA RED 1 BSA GRN 1	FCSSA CSSA RUBY LZSA HAWK FOB JANE JLOA (PORT GOLD)	FCSSA FOB JANE JLOA (PORT GOLD) RRP BOB
LOGISTICS C2: CSS TASK ORG & MISSION ASSIGNMENTS	FSSG GS MEF SPT 1—GS BLT 1/5 SPT 2—GS BLT 1/1	FSSG GS MEF LFSP GS MEF CSDD 11 DS 1 MAR CSDD 15 DS 5 MAR	FSSG GS MEF BOG GS MEF CSDD 11 DS 1 MAR
INFRASTRUCTURE (PHYSICAL NETWORK)	MSR OAK	MSR OAK MSR MAPLE SLOC CRANE PORT BLUE	MSR OAK MSR MAPLE SLOC CRANE PORT BLUE
THEATER SUPPORT	NONE	OPDS; LIGHTERAGE; AIRLIFT (C130)	OPDS; LIGHTERAGE; AIRLIFT (C130); JLOTS; IPDS
CAPABILITIES			
SUPPLY			
CLASS I	3 DOS	5 DOS	3 DOS
CLASS I (W)	4000 GAL/DAY	10,000 GAL/DAY	25,000 GAL/DAY
CLASS III	50,000 GAL/DAY	50,000 GAL/DAY	30,000 GAL/DAY
CLASS V (W&A)	1 DOA/3DOA	3 DOA/3 DOA	2 DOA/1 DOA
TRANSPORTATION			
MOTOR TRANS	440 ST/DAY	750 ST/DAY	1000 ST/DAY
MHE	NO GO	GO	GO
RAIL	N/A	N/A	1000 ST/DAY
THEATER LIGHTERAGE	N/A	150 ST/DAY	1500 ST/DAY
AERIAL DELIVERY	N/A	10 ST/DAY	N/A
ASSAULT SUPPORT	50 ST/DAY	5 ST/DAY	65 ST/DAY
THEATER AIRLIFT	N/A	10 SORTIES/DAY	25 SORTIES/DAY
MAINTENANCE	SEA BASE	CSDD/MST	MST
ENGINEERING	N/A	4 AAFS/25 ROWPU	4 AAFS/50 ROWPU
HSS OPERATIONS	0 BEDS	500 BEDS/8 ER	150 BEDS/2 ER
SERVICES	N/A	M.A./MAIL	M.A./MAIL/PX/FIN
CSSE PRIORITIES	S-T-S MVM/T; BCH T-PUT; RESUPPLY	ARTY AMMO; FUEL MVM/T; JLOTS RECON	EST LOA; HA OPS; RECONSTITUTE FORCE
CSSE CCIR (DESCRIBE OR #S)	WX/SEA STATE; BEACH DATA	MSR OAK CONDITION	JLOTS CAPACITY
CSSE DECISION POINTS	# 1	# 4	# 5, 6, 7

Table 6-1. COA for logistic support narrative—matrix format.

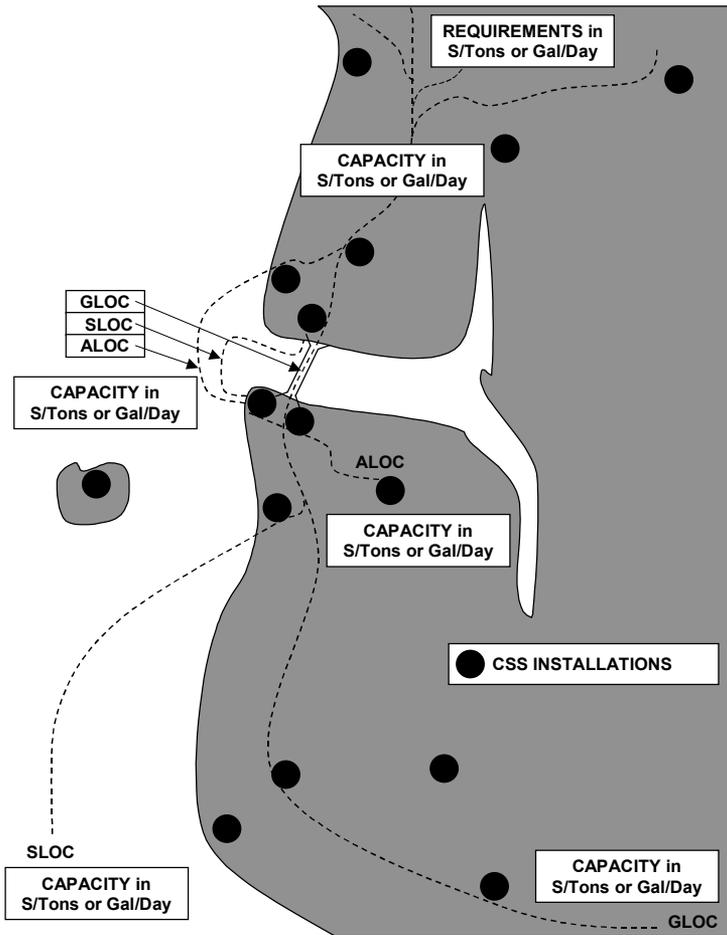


Figure 6-2. CSSE COA for logistic support graphic.

Figure 6-2 illustrates one way to represent the grid developed from infrastructure (physical network) analysis and the application of the elements of a logistics system designed to meet a particular set of demand requirements. Supported unit(s) will establish their requirement. The capacity of the physical infrastructure, storage and distribution resources available, task organization, and mission assignments will determine the capability of the supporting force to meet the requirements of the supported force. The graphic highlights the total number of installations that are available to be activated if the situation dictates. The

COA depicted through the AO will usually be the most efficient combination of installations, distribution methods over available LOCs, task-organization, and mission assignments. This is the commander's COA. The commander may select a different COA within the framework of the logistics system due to METT-T or a change in the scheme of maneuver. This developed logistics system—the grid—allows the commander to use the nodes (installations and organizations) as switches, to channel support where and at the level needed anywhere within the battlespace.

6003. Relationship to Other Steps in the MCPP

This step is a natural progression from the logistics estimate of supportability and lays the foundation for the CSSE concept of operations. The result of the COA for logistics support is a logistics support COA briefing to the commander, who chooses the COA and issues direction and wargaming guidance. The CSSE commander may approve the COA, or modify it to continue the development of the CSSE concept of operations.

Prior to the MAGTF OPT beginning its war game, it must allow time for the MSCs to catch up. The price paid for not allowing the MSCs to complete the COA development step, which includes the research effort for the estimate of supportability and the development of COAs, and their concept of operations and supporting concepts (fires, support, intelligence, information operations, maneuver), is the risk of having incomplete information at the MAGTF OPT war game. These overlooked or ignored facts could invalidate the entire MAGTF OPT war game.

This page intentionally left blank.

Part VII

CSSE War Game

CSSE wargaming evaluates the COA for logistics support against the MEF COA to validate logistics estimates of supportability and develop solutions to anticipated support requirements. During CSSE wargaming, the COA for logistics support is wargamed against each MEF COA to determine how to best support the concept of operations and the scheme of maneuver while integrating the six logistics functional areas.

7001. Introduction

The CSSE OPT should war game the COA for logistics support. The sequence of essential tasks method is the best suited for highlighting the sustainment activities necessary to support planned operations. This technique also allows war gamers to concurrently analyze the essential tasks required to support the MAGTF concept of operations. This technique is familiar to logisticians. It nearly replicates a “priority of work” view of essential or critical task workload lines or sequence of responsibilities. The intent is to literally “build” a logistics system, much like an engineer or shore party Marine builds a bridge, a defensive position, or a BSA. Sequencing out, or identifying, those essential tasks required for mission success (i.e., end state) puts planners in a position to deviate from an approved COA if and when they have to.

7002. Issues for Consideration

The box technique is suited for some situations requiring a detailed analysis of the critical CSS events that must occur within that area. The war game may be conducted to analyze desired actions at a location (e.g., a seaport), weather, terrain, infrastructure, or decision points, without discounting enemy actions—within the box.

The capabilities of the logistics system are a finite resource and will represent the limit of the means for carrying out any assigned mission. Measures of effectiveness have to be developed to assess the system, its configuration, and the application of capabilities toward the requirements identified by the supported units.

The CSSE has to conduct a war game of its own. It must “what if” logistics risks in the plan and those proposed to support the MAGTF concept of operations. The synchronization matrix and event matrix, decision support template (DST) and decision support matrix (DSM) from both the MAGTF and the main effort are key to a successful CSSE war game. These tools allow the CSSE OPT to focus on key events and times to ensure the proposed COA for logistics support can meet the requirement. The DSM/DST can highlight critical events to support or essential tasks to execute.

The CSSE OPT should look closely at the MAGTF and main effort decision points from the products listed above and ask, “What are the effects of these decision points?” “What actions do they cause the CSSE to take that are outside the realm of the proposed COA for logistics support?” Recording the war game results gives the logistician a record from which to:

- Confirm and refine the logistics estimate of supportability.
- Integrate all logistics functions.
- Develop logistics decision support templates and matrices.
- Refine the task-organization of CSS forces.
- Refine the CSS installations and locations.
- Refine the support relationships.

The CSSE OPT has to ask the hard questions. The COA for logistics support should be designed to generate a flexible response. It should provide responses to *unpredictable battlefield developments*. You must “what if” the operations plan against unexpected successes. These could lead to an unplanned tempo (increased battle rhythm, unexpected resource demands), an unprepared for opportunity for exploitation, or early initiation of pursuit operations. You must “what if” the operations plan against unexpected failures. These could lead to unplanned for, and very complex, retrograde operations; delay, withdrawal, or retirement.

You must “what if” the operations plan against unexpected emergencies and unpredicted enemy actions, against both the CSSE and the maneuvering combat elements (ACE, GCE) of the MAGTF. A technique that will help the CSSE OPT through the war game is to design a list of questions to ask during each turn of the war game. Below are a few samples:

- Have we positioned assets to support this task?
- Have we appropriately task organized to support this task?
- How will this task impact our ability to support the force as a whole?
- Do we have the capability to meet the requirements of this task?
- How do we adjust to cover our resource shortfalls?
- What are our planned work-arounds (branch plans)?
- What are our options?
- What are the assumed logistics risks?

The CSSE war game should build the logistics DST and DSM.

War games should confirm numerous detailed pieces of the MAGTF logistics plan. The checklist (see Table 7-1) provides logistics planners a memory jogger for critical integration and synchronization planning.

Refined CSSE COA narrative and graphic and initial MAGTF/MSO concepts of support. How the MAGTF is going to weigh the main effort logistically. The operational reach of the force. Defining the line that maneuver commanders dare not cross.

Other logistics units in the MAGTF AO, which may include coalition forces.

CSSE task-organization.

Logistics synchronization matrix. This is in concert with battle duration of each event as well as the duration of the entire operation.

Identification of tasks for subordinate units.

Refined combat and maintenance loss estimates.

Sufficiency of main supply routes and space (terrain management issue).

Throughput capability.

Movement times and tables.

Movement program requirements.

External support requirements.

Priorities of support.

Priorities of maintenance and movement.

Reconstitution requirements for the next phase of the operations.

Obstacle and barrier plans. Friendly FASCAM usage and affected areas (You may have to traffic this same area later.)

Barrier material requirements.

RSR development factors. What quantities and types of ammunition were fired? This helps develop the MAGTF ammunition management plan and highlights or discounts a requirement for CSR for specific DODICs.

Were there any preparatory fires? Pre-positioning of ammunition may be in order.

Casualty evacuation plan.

Mortuary affairs/Graves registration plan.

Personnel replacement plan.

Enemy prisoner of war (EPW); displaced person, refugee, and evacuee (DPRE); civilian internee (CI) requirements.

Deception plan and impact on logistics.

Force protection plan for CSS installations and organizations.

- Fires and FSCM ISO CSS installations and organizations.

- Reconnaissance and surveillance plan.

- Named areas of interest for the rear and close areas.

- Air defense plan for CSS installations and organizations.

- Bypass criteria and impact on rear area.

- Critical protection points and high-value targets in the rear area.

Decision points (CSS and Force protection).

Table 7-1. Checklist for preparing post war game products.

When the CSSE COA is analyzed, a clear picture of the advantages and disadvantages can be developed. A COA comparison and decision matrix is used to compare the potential route, node, and distribution method combinations to facilitate a COA decision recommendation to the CSSE commander.

Table 7-2 and 7-3 are sample logistics synchronization matrices. A synchronization matrix is a planning support tool designed to integrate the efforts of the force across the warfighting functions and to record the results of the COA war game. It helps integrate the effects of the MAGTF through the warfighting functions or the CSSE through the six logistics functional areas.

During COA development, logistics planners flesh out major tasks. The matrix is not a script, but it helps provide structure during the war game. During the war game it is used as a collection tool and record the events of the war game. Once completed, it depicts the diverse actions of the CSSE over time that are necessary to execute the COA for logistics support. It provides the basis for an execution matrix or Annex X, Execution Checklist, to the OPLAN/OPORD. The design of a synchronization matrix is an individual commander’s prerogative and may vary from command to command.

MEF TIMELINE/EVENT		STAGE/HOUR	STAGE/HOUR	END STATE
THREAT/WX EFFECTS				
CSSE DECISION POINTS				
CSSE CCIR (S)				
CAPABILITIES				
TRANS	NODE			
	MOTOR - T			
	BW CAP			
	BF CAP			
SUPPLY	Class V (W)			
	Class V (A)			
	Class I	Water		
		MRE		
GEN ENG	Class I (W)			
	Class III (B)			
	Class IV			
MAINT	ECHELON			
	MNT SUPT			
HSS	LEVEL			
	PT MVMT			
	CLS VIII			
SERVICES	POSTAL			
	DISPRSING			
	EXCHANGE			
	MORTUARY AFFAIRS			

Table 7-2. Sample synchronization matrix.

UNIT		PRE D-DAY	D-DAY	D+1	D+2
	EVENT				
	DECISION POINTS				
FSSG	SUPPORTED UNIT ACTION				
	CSS ACTION				
	QUANTITIES CLASS I CLASS III CLASS V OTHER				
CSSG	SUPPORTED UNIT ACTION				
	CSS ACTION				
	QUANTITIES CLASS I CLASS III CLASS V OTHER				
CSSD	SUPPORTED UNIT ACTION				
	CSS ACTION				
	QUANTITIES CLASS I CLASS III CLASS V OTHER				

Table 7-3. Sample synchronization matrix.

The CSSE OPT must identify logistics branch plans consistent with the potential needs of the supported force.

7003. Relationship to Other Steps in the MCPP

This step links the outputs of the COA for logistics support development process to finalizing the CSSE concept of operations. The result of the CSSE war game is a COA for logistics support decision by the CSSE commander.

Part VIII

CSSE COA Comparison and Decision

The CSSE COA comparison and decision is the commander's step in the MCPP. The CSSE OPT can assist the commander's decision process by producing and briefing a COA comparison and decision matrix.

8001. Introduction

The products developed throughout the planning process can be of value in this step. The CSSE IPB products, the logistics estimate of supportability, the COA for logistics support narrative matrix and graphic, the logistics decision support template and matrix, and the synchronization matrix all bring information to the commander's decision process.

8002. Issues for Consideration

The COA chosen by the MAGTF OPT largely drives the CSSE COA for logistics support.

Prior to the CSSE COA comparison and decision:

- The CSSE commander must issue evaluation criteria for his proposed COA for logistics support.
- The logistics planning factors and the individuals who prepared them have to be available to the MAGTF OPT to justify and explain the factors so the MAGTF commander can make informed decisions about his separate COA.
- The CSSE battle staff and the CSSE OPT with its SMEs must be able to answer any logistics related questions the MAGTF may not be clear on.

If the CSSE commander has taken the route of a multi-site, multi-distribution mode logistics system optimized for throughput, then his comparison and decision is little more than validating the logistics system that will be established to support the concept of operations.

The commander and his staff must choose the combination of routes, nodes, and distribution methods that best optimizes support. Hence, the emphasis on CSS installations, CSS organizations, and mission assignments throughout the planning process.

8003. Relationship to Other Steps in the MCPP

The OPT steps back during this step, takes a knee, and assists or answers questions only if required. The CSSE provides general support to the MAGTF. Since the CSSE is usually supporting the MAGTF MSCs, the main and supporting efforts, it is important to get a COA decision from the CSSE commander, and then write the CSSE concept of operations. When the CSSE is the main effort the same process applies. This single CSSE concept of operations provides the details of the logistics system that will be developed to support the other elements of the MAGTF. The CSSE concept of operations provides the foundation from which the MAGTF G-4 writes the MAGTF concept of support.

Part IX

CSSE Concept of Operations

The CSSE concept of operations is the narrative and graphic that describes the COA for logistics support that best supports the MAGTF concept of operations. It provides the MAGTF and CSSE commanders and their subordinate commands a visualization of how MAGTF operations will be supported. A CSSE concept of operations and operations overlay facilitate communicating the CSSE concept of operations to the MAGTF commander and subordinate commands.

9001. Introduction

The intent of the CSSE concept of operations is to give thought to the process of specifically applying logistics to the MAGTF concept of operations and to craft a word picture that the MAGTF commander, his staff, and MSC commanders can easily understand. It should provide a visualization of the flow of CSS operations from **start-state to end state** for CSSEs, and their supported units within the MAGTF. It should not “boilerplate” unnecessary information or talk only in logistics terms.

9002. Issues for Consideration

The concept should address essential, unusual, nonstandard, and non-SOP aspects of CSS synchronization and operations from a framework of who, what, when, and where. Some tools that may be available to assist in drafting the concept include; the higher headquarters’ concept of operations and concept of support, their Annex D to their operations order, your commander’s planning guidance, intent, and evaluation criteria, logistics and personnel estimates of supportability, and CSS notes from the wargaming process. Consider the CSS characteristics and the functional areas of logistics both listed in MCDP 4 and MCWP 4-1 and 4-11. All essential, unusual, nonstandard, and non-SOP items and

priorities that are common to all phases of the operation should be addressed in the introductory portion of the paragraph. The process of writing the CSSE concept of operations can also serve as a test of essential CSS planning considerations.

a. Development Guidelines

Consider the functional areas of logistics in the context of actions accomplished **before, during, and after** the operation. The operative term is *consider*. The intent is not to address each function unless it is critical or unusual. If the operation is phased, then the logistic support for the “**during**” portion of the concept of operations should also be structured by phase.

The MAGTF concept of support establishes priorities of support for the operation. The MAGTF commander establishes these priorities in his intent statement (e.g., main effort) and in the concept of operations (paragraph 3). This could include prioritizing such things as personnel replacements; maintenance and evacuation, by unit and by system (aviation and surface systems would be given separate priorities); fuel and/or ammunition; road network use by unit and/or commodity; and any resource subject to competing demands or constraints.

The more complex the operation (a multi-phased operation or operations conducted by larger formations), the more critical the synchronization of CSS.

Logistics planners need to review the CSSE concept of operations and ensure it meets the commander’s needs. There are several basic questions logisticians should ask—

- Is the CSSE concept of operations easily understood, and is it comprehensive and concise?
- Does it provide a visualization (word picture) of the overall CSSE concept of operations?
- Is the CSSE concept of operations synchronized with and does it support the MAGTF or main effort’s concept of operations (paragraph 3)?
- Does it consider, and address as required, the logistic functions by phase for phased operations?

- Does it establish priorities of support for the operation (**before**, **during**, and **after** may be planning considerations), and do these priorities correlate with the priorities established in the commander's intent, paragraph 3, and other directives from higher?

b. Sources of Information

A logistician that actively participates in the MCPP facilitates the development of the CSSE concept of operations. Specifically, during mission analysis, the logistics planner determines the supported units' current materiel and personnel posture before the operation begins. This, with the commander's priorities, determines which units and items of equipment should receive priority before the operation.

The war gaming and quantitative analysis portions of the COA war game highlight critical and/or unusual logistic requirements and determine support priorities for during and after the operation. By its very nature, wargaming facilitates logistic synchronization with the MAGTF concept of operations.

There are numerous other information sources for the CSSE concept of operations. These include:

- Commander's guidance and intent.
- MAGTF concept of operations.
- Higher headquarters concept of support, JTF or other Service service support order or plan (if applicable), and CSSE COA graphic and narrative.
- Lessons learned data and historical perspectives to see how others successfully, or unsuccessfully, supported other similar operations.
- The CSSE's battle book or unit SOP.

c. Briefing

The CSSE concept of operations should address critical or unusual aspects of logistic support consistent with the phases or stages of planned operations. Some techniques and procedures for essential elements of information in a CSSE concept of operations briefing are:

- Tell commanders what they can expect from the CSSE and how many days or hours they can operate based on material readiness or attainment of supply levels. Use common terminology such as day of supply, day of ammunition, or other metrics that are meaningful to the commander. Avoid technical jargon.
- Address the “culminating point” from the CSSE perspective and describe how to extend operational reach.
- Avoid briefing the results of calculations associated with the logistics estimate of supportability.
- Use a CSS operations overlay and a CSSE concept of operations narrative to show the MAGTF commanders how the CSSE concept of operations is integrated with the MAGTF concept of support and supports the MAGTF concept of operations.
- Include locations of critical CSS installations, assets, and events (DSM/DST).
- Address priorities, shifts in priorities, problem areas and solutions, and critical events.

d. Outline

The CSSE concept of operations outline should include:

- A brief synopsis of the CSSE mission.
- Location of CSSE command headquarters and/or CSSA(s) (e.g., FCSSA, CSSA, BSA, RRP, et al), including locations of next higher logistics bases/areas if not clearly conveyed in the CSS operations overlay.
- Units in the adjacent or next higher CSSE supporting your unit (e.g., MLC units, COSCOM units, TSC units)
- The next higher’s support priorities and where your CSSE (or unit) fits into those priorities.
- Phases or stages of the operation.
- Priorities of effort (highlight logistics focus of effort or main effort when necessary) throughout the operation.
- Planned operational pauses (which infer a logistics surge requirement).
- Significant and/or unusual CSS issues that might impact the overall operation (e.g., displacement of significant CSS units or capabilities).

- The use of HNS.
- Any significant/critical CSS risks to the operation.

This formula, or template, is easily transitioned for use in the development of the MAGTF concept of support and the ACE and GCE concepts of support.

e. Areas or Items to Consider Under Each Logistic Function

The areas of consideration listed below are not intended as an all-encompassing checklist and may not always be applicable. They are intended, rather, as a point of departure for logistics planners developing a CSSE concept of operations. Although the items are considered, they are not necessarily addressed in the concept of operations unless they are critical, non-SOP, or unusual. Items for overall consideration include:

- Support areas and support relationships (MCRP 5-12A, *Operational Terms and Graphics*).
- Priorities of routes/events (timing).
- Support of attached or detached forces [US Army cavalry, armor, MLRS, Marines afloat, etc. (if required)].
- CSS actions in assembly areas, staging areas, and attack positions (if any).
- Programmed locations and projected displacements of logistic support units and areas.
- Support provided by/to higher or adjacent units or other unusual support arrangements. (coalition forces, etc)
- CSS actions in support of security and/or deception plans and/or operations.
- HNS arrangements.
- CSS task organization (CSS units' capability versus supported units' requirements).
- Unusual and/or critical impact of weather, terrain, and security on CSS operations.
- Special considerations for joint (sister service) or combined (allied) CSS operations.

Consider the following specific items before, during, and after the operation or its phases/stages—

1. Supply

Supply Support: Basic load status. Operational loads. Distribution methods. Combat-configured loads. Emergency resupply procedures. Monitoring and reporting requirements. Reconstitution. Classes of supply I, II, IV, VI, and VIII. Distribution methods of supply point or unit. Support from other sources. Significant risks. Others

Ordnance: RSR versus CSR. Ammunition prestocking arrangements. Forecasted requirements. CSR sub allocation. ATP, ASP, and FSSG/MLC storage area locations (only general locations, grids on the CSS overlay). Expenditure restrictions (e.g., no more than what percent of the CSR may be expended to support the covering force?). Significant risks. Others.

Fuel: Current status (in vehicles and bulk carriers/storage). Anticipated requirements. En route requirements/operations. Bulk refueling procedures. FARP operations. Refuel assets. Systems capabilities. Distribution plan and methods. Fuel allocations. Displacement of refueling assets. Significant risks. Others.

2. Personnel/HSS: Personnel status and replacement operations. Projected casualties and their effect on combat readiness. Establishing or adjusting personnel and medical support priorities. Locations of medical treatment facilities. Evacuation procedures for killed in action (KIA)/wounded in action (WIA). Enemy prisoner of war (EPW) procedures. Friendly confinement requirements/procedures. Displace Persons, Refugees, Evacuees (DPRE). Significant risks. Others.

3. General Engineering: Explosive ordnance disposal (EOD) support, field storage requirements. Road construction/maintenance requirements. Beach/LZ development. Critical gaps (wet/dry). Water production/storage, fuel storage. Significant risks. Others.

4. Maintenance: Maintenance priorities (air, ground). Anticipated workload (battle damage and maintenance failure rates/projections). Battle damage assessment and repair procedures. Establish or adjust priorities. Maintenance repair time lines. Controlled substitution or cannibalization procedures. Maintenance support team (MST) employment. Locations/displacements of maintenance/repair part supply

units. Support from other sources. Distribution methods for classes VII and IX. Evacuation procedures (could, in some cases, also include recovery procedures). Significant risks. Others.

5. Transportation: Transportation requirements (logistic versus tactical). Movement and route use priorities (units and CSS). Traffic control requirements. Transportation unit/asset displacements. Support from other sources. Throughput operations. Trailer transfer arrangements. Alternate modes of transportation; e.g., rail, HNS. Cargo transfer/terminal operations. Security of lines of communication (LOC). Supply routes. Mode selection, HET priorities, and back haul priorities. Significant risks. Others.

6. Services: Personnel services. Finance services. Postal services. Requirements for mortuary affairs operations and support. Significant risks. Others.

f. Format

The CSSE concept of operations can be a single paragraph or can use the “before, during, after” format that CGSC recommends. If you use the “before, during, after” format for a phased operation, the multiple phases and/or stages are detailed in multiple “during” paragraphs. Below, and in Appendix F, are provided a single paragraph example and a multi-phased “before, during, after” example.

CSSE Concept of Operations (Sample Modified from Exercise Prairie Warrior, April 2000)

The 1st FSSG provides GS to the MAGTF, GS and DS support to non-MAGTF units, and Level II health services support to I MEF units from CSSAs TOM, TRACI, JANE, BOB, and MARY in the MEF rear area and via forward deployed combat service support elements throughout the MEF AO. CSSA TOM is the MEF FCSSA and 1st FSSG CP.

1st FSSG provides dispersing services support throughout the MEF AO. The MLC provides EAC-level support to I MEF forces, to include executing the MEF personnel replacement plan, movement control plan, and reception, staging, and onward movement support for APODs and SPODs vicinity of Houston (XX 123456).

Houston is the primary SPOD, Galveston (XX 123456) is primary Class V port, and Beaumont (XX 123456) is primary Class III (B) port. Primary APOD for theater reception is the Houston Intercontinental Airport.

Specified Class II, IV, VII, and IX items are command regulated/controlled throughout the operation. A CSR is in effect for 155 (DODIC XX) and MLRS (DODIC XX). No resupply exists during this operation for ATACMS and Hellfire.

I MEF EPW holding area located vicinity of Baytown (XX 123456).

Primary method of sustainment is via ground transportation along MEF MSRs. Secondary method of sustainment is via water transportation along the intercoastal waterway. Emergency resupply is available primarily for Class III and V via aerial delivery and helicopter slingload. MEF MSRs north to GCE sectors are: MSR CHEVY (Hwy 45), MSR FORD (Hwy 75), MSR DODGE (Hwy 143), MSR BENZ (Hwy 225), MSR SUBARU (FCSSA TOM to Dallas), MSR CADILLAC (Class V, Galveston to Fort Worth), MSR LEXIS (Class III, Beaumont to Erving).

MSR JAGUAR is the MEF designated contaminated route. Cannibalization is authorized at CSSD level only.

Shock Trauma Platoons and Surgical Companies provide Level II health service support forward to MAGTF elements. MEF evacuation policy is 48 hours. USNS Mercy (Level III) is priority to I MEF. Air evacuation restricted to URGENT and PRIORITY patients. Hasty burials are not authorized. MEF Graves Registration collection point is located in CSSA JANE. HNS includes both local and line-haul transportation assets to include tug and commercial barge watercraft. HNS assets will remain south of the combat zone. Logistics is a national responsibility for all troop-contributing nations.

The joint force land component commander as the Army Service component commander has Title X common item support (CIS) responsibilities to ALL Services for the following: Classes I, II, III, IV, VI, and water distribution, and operation of common user ocean terminals, common user land transportation in theater, intermodal container management, conventional ammunition, aerial delivery

equipment and systems, overland POL support, inland Class I. The 7th TSC will be the executive agent for Title X CIS and humanitarian support for I MEF.

g. The CSS Operations Overlay

The CSS operations overlay is a graphic representation of the tactical array of combat service support areas (CSSA), combat service support elements (CSSE), and other identified future use CSS installations. Ideally, it accompanies copies of the OPLAN/OPORD distributed to subordinate headquarters and is used as a graphic backdrop to the CSSE concept of operations briefing. The CSS operations overlay should include (as a minimum):

- Locations of **current** and **proposed** support areas.
- Boundaries for CSS responsibilities (CSSE unit boundaries or assigned support areas).
- MSR and alternate supply routes (ASR).
- Locations of major headquarters.
- Locations of CSS installations and units.
- Locations of critical resources (potable water, fuel farm, ASP, etc.) and usable physical network infrastructure (ports, airfields, LZs, canals, pipelines, rivers, rail/roadways).

The CSS operations overlay not only depicts the tactical array of CSSEs and CSS nodes, it is also an integral part of the overall OPLAN/OPORD graphics and must be synchronized with the operations overlays.

A FSSG or MLC CSS operations overlay may have to encompass the entire MEF AO as well as a part of the communications zone (COMMZ) and, as a minimum, would depict:

- The CSSAs and, using type unit symbols, the CSSEs and headquarters located therein, and the locations of any other critical CSS nodes not located in an CSSA.
- The MSRs leading into the MEF rear area from the COMMZ and the MSRs leading from the MEF rear area to each CSSA (or, as a minimum, to the divisions rear boundaries) and to other critical logistic nodes.

- Locations of alternate and/or proposed CSSA sites.
- Locations of CSSEs operating forward of the divisional rear boundaries.

A CSSE CSS operations overlay would include (as a minimum):

- The CSSA location and, using type unit symbols, the CSSEs and headquarters locations.
- Locations of alternate/proposed CSSAs. The MSR from the CSSA to the repair and replenishment points (RRP), ATP, truck/trailer transfer points and/or maintenance collection points.
- The MSR from the FCSSA or GS CSSE to the DS CSSE.

h. Using and Completing the CSSE Requirements and Capabilities Roll-Up Matrices

The oral CSSE concept of operations briefing allows the commander and his subordinates to visualize how the operation will be logistically sustained. The logistics planners' oral briefing, using the CSS operations overlay (see Figure 9-1), is useful in communicating the CSSE concept of operations to the commander. In addition, a CSSE requirements and capabilities roll-up matrices (see Tables 9-1 and 9-2) can be used to make complex logistic concepts more easily understood. They can complement the briefing.

The design of the matrix is aligned with the format of the CSSE concept of operations. The matrices highlight aspects of the critical logistic functions. These matrices are not stand-alone and cannot replace the CSSE concept of operations briefing, but should complement and supplement it. The matrices can be placed directly on computer-generated overlays or accessed with call-up buttons. They can also be printed out and taped on map sheets.

Requirements can be calculated in a variety of ways. Several automated tools exist to support CSS requirements determination. Capabilities are expressed in terms of transportation resources and associated distribution infrastructure; the ground, air, and sea routes, CSS installations, CSS organizations, and command and control measures (task-organization and mission assignments)—the designed *logistics system*.

Task Force: _____ GC:xxxxxx			
Class	Organic Capability	On-Hand	Requirement
Population Supported	NA		
Ammo (STons)			
Fuel			
Water			
Bulk (STons)			
Special Handling			

Table 9-1. Requirements Rollup.

CSSE: _____ GC: xxxxxx			
Class	On-Hand	Distribution Capability	Due In
Population Supported		NA	
Ammo (STons)			
Fuel			
Water			
Bulk (STons)			
Special Handling			

Table 9-2. Capabilities rollup.

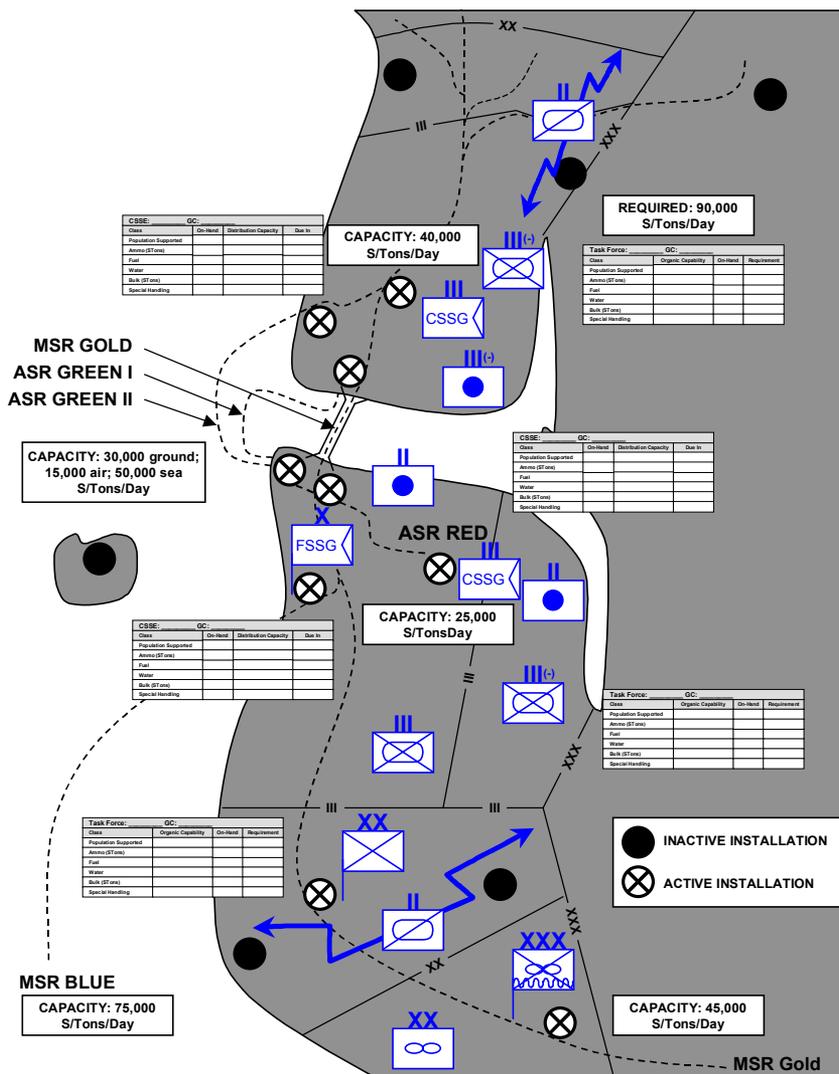


Figure 9-1. Combat service support operations overlay.

9003. Relationship to Other Steps in the MCPP

This step is a natural progression from the logistics estimate of supportability and communicates the CSSE concept of operations. The

result is a descriptive narrative and graphic display of the CSSE commander's visualization of his support to the MAGTF. The MAGTF's concept of operations evolves from its COA narrative. The CSSE cannot produce a concept of operations directly from its COA narrative because the MAGTF and its main effort have not yet made COA decisions. The CSSE concept of operations has to support the MAGTF concept of operations, and consequently, cannot be written until their COA decisions have been made.

This page intentionally left blank.

Part X

Orders Development

Orders development communicates the commander's intent, guidance, and decisions in a clear, useful form that is easily understood by those executing the order. Various portions of the order have been prepared during the previous steps of the MCPP.

10001. Introduction

The CSSE OPT refines and publishes the CSSE concept of operations for its subordinate, adjacent, and higher units.

10002. Issues for Consideration

The CSSE battle staff will contribute to the writing of the MAGTF concept of support contained in the MAGTF basic order. It will most likely be a near direct lift of the CSSE concept of operations since the CSSE is the executor of the mission (ACE, GCE, HNS, joint, and other factors would be added). Additionally, the CSSE battle staff will contribute to the key logistics annexes in the CE's order, most notably ANNEXES D/E/P/Q (refer to MCWP 4-12 for further discussion).

The CSSE must complete and publish the CSSE operations order with all the appropriate annexes, appendices, and tabs.

10003. Relationship to Other Steps in the MCPP

The purpose of using the MCPP is to take an organized approach to problem solving. The operations order is the means of transmitting key and pertinent information concerning execution to all units in and in support of the MAGTF. It's been said, "If it ain't in the order, it ain't!"

Copies should be passed to all subordinate, adjacent, and higher units who may be affected by your operations or who fall within your area of interest (as discretion dictates).

Part XI

Transition

Transition serves the purpose of shifting from planning to execution. Its intent is to enhance the situational awareness of those who will execute the order, maintains the intent of the MAGTF concept of operations and supporting concepts, promotes unity of effort, and generates tempo.

11001. Introduction

The CSSE operations order must be disseminated to all appropriate commands within the MAGTF.

11002. Issues for Consideration

The MAGTF CSSE commander must brief subordinate CSSEs on the details and requirements of the operations order.

The CSSE commander must hold a confirmation brief with his CSS higher headquarters if one exists. The operations order should be briefed in detail to the MAGTF commander. Although it is not required by doctrine, it is good practice to brief the supported unit commander on the CSSE Concept of operations and any other details the supported commander may have questions on.

The CSSE OPT should begin planning for the execution of sequels.

11003. Relationship to Other Steps in the MCPP

Although the final step in the MCPP, transition is continuous. It requires a free flow of information between commanders and staffs by all available means. Transition may occur over the hood of a HMMWV or

be a formal briefed process that includes slides, products produced in the MCPP, and ROC drills.

Appendix A

CSSE OPT Considerations

A-1. Logistic Support Missions

(MCWP 4-11 and 6-2)

CSS units provide support to other elements of the MAGTF via either a general support or direct support relationship. In a **support relationship**, the CSS unit, while responsive to the needs of the supported unit, remains under the command of its parent organization. The CSS commander retains control over subordinate units, which enhances centralized command and control and decentralized execution. While this is the normal method, it is not the only method. Both permanent and task-organized CSS units can be attached to other organizations. The MAGTF commander may direct the CSSE commander to attach CSS units to GCE or ACE units, a **command relationship**. The CSSE commander retains responsibility for supporting CSS units attached to other units but cannot assign or change their mission. *Whereas, he can assign or change the mission of organic units that he assigned a GS or DS mission in a support relationship.* Formal missions dictate specific responsibilities for both the supporting unit and the supported unit. Mission assignments establish the CSS unit's relationship to the supported unit as well as to other CSS units.

Mission description elements: 1) priority of response 2) liaison 3) communications 4) positioning. Only the higher CSS headquarters can change the unit's assigned mission when it is in a support relationship with another unit.

Direct Support:

Responds to CSS requests in priority from—

- Supported unit.
- Higher CSS headquarters.
- Own unit.

Provides liaison personnel to the supported unit.
Establishes communications with—

- Supported unit.
- Higher CSS headquarters.

Is positioned by the supported unit.

General Support:

Responds to CSS requests in priority from—

- Higher CSS headquarters.
- Supported unit.
- Own units.

Establishes liaison with the supported unit(s).
Establishes communications with—

- Supported unit(s).
- Higher CSS headquarters.

Is positioned by higher CSS headquarters.

A-2. Combat Service Support Installations

(MCWP 4-11 and MCRP 5-12A)

Depot (from the supporting establishment)
Base/station (from the supporting establishment)
Intermediate staging base (ISB)
Support area
Force combat service support area (FCSSA)
Combat service support area (CSSA)
Beach support area (BSA)
Landing zone support area (LZSA)
Forward logistics base (FLB)
Repair replenishment point (RRP)
Salvage collection point (SCP)

Transfer point (ammo, trailer, patient)

Logistics release point

Logistics over-the-shore (LOTS) operations area (LOA)

Terminal, port, beach, airhead, railhead (usually found within a CSSA)

Terminal (either end of a carrier line—railroad, trucking, shipping, airline—with classifying yards, dock and lighterage facilities, management offices, storage sheds, and freight and passenger stations that serve as a junction to any point with other lines)

Seaport of embarkation/debarkation (SPOE/SPOD; usually found within a CSSA)

Aerial port of embarkation/debarkation (APOE/APOD; usually found within a CSSA)

Forward operating base (FOB classifications: main air base, air facility, air site, and air points (FARPs and lager points))

Main supply route (MSR)

Auxiliary Supply Route (ASR)

Traffic Control Point (TCP)

A-3. Combat Service Support Task-Organizations

(MCWP 4-11 and MCRP 5-12C)

Marine Corps logistics command (MLC)

Force service support group (FSSG)

Combat service support group (CSSG)

Combat service support detachment (CSSD)

Mobile combat service support detachment (MCSSD)

Maintenance support team (MST) (Maintenance contact team (MCT) is organic to the MSC and therefore not a CSSE.)

Landing force support party (LFSP: usually composed of two or more shore party groups and helicopter support teams, a naval beach group (USN), and various special attachments)

Shore party group

Shore party team

Helicopter support team (HST) (Not to be confused with: detachment shore platoon, shore party team/group; or detachment landing zone platoon, helicopter support team.)

Tactical logistics group (TACLOG)

Survey, liaison, and reconnaissance party (SLRP)

Offload preparation party (OPP)
Arrival and assembly operations group (AAOG)
Arrival and assembly operations element (AAOE)
Port operations group (POG)
Beach operations group (BOG)
Rail operations group (ROG)
Arrival airfield control group (AACG)
Departure airfield control group (DACG)
Train—unit, combat, or field (a service force or group of service elements which provides logistic support)
Convoy/march column (organized to meet specific tactical (e.g., tactical motor march) or administrative requirements)
Force movement control center (FMCC)
Logistics movement control center (LMCC)
Unit movement control center (UMCC)
Combat service support operations center (CSSOC)
Landing force operations center (LFOC)
Aviation ground support operations center (AGSOC)

Associated Navy organizations:

Naval beach group
Beach party team
Medical regulating center
Primary control ship (PCS)
Tactical air control center (TACC)
Helicopter direction center (HDC)
Navy cargo handling and port group (NAVCHAPGRU)

A-4. Mandatory Elements in a CSSE Mission Statement

(MCWP 4-11 and 5-1)

- Supporting unit.
- Support mission.
 - Direct support.
 - General support.
- Supported unit.
- Optional element: additional details.

Command relationships: elements of division truck and military police companies and wing engineer squadrons may also be **attached** to other units.

These are additive elements to those described in the MCWP 5-1. The Marine Corps Doctrine Division intends on changing the bad mission statement example in the MCWP 4-11. It is incomplete as written. See the MCWP 5-1 (5 Ws) for mission statement construction.

A-5. Management Procedures in Tactical Logistics Functional Areas

(MCWP 4-11 and MCRP 4-11A)

Supply

Control: 1) Records, 2) Stockage objectives, 3) Reorder point.

Distribution Methods: 1) Supply point distribution, 2) unit distribution, 3) Combination.

Replenishment Systems: 1) Pull system, 2) Push system, 3) Combination.
GCE supply support operations: Supply trains, replenishment methods, service station and tailgate issue.

Maintenance

Centralized control with decentralized execution to maximize responsiveness.

Transportation

Centralized movement control at the highest level.

General Engineering

Not subject to unique control measures.

Health Services

The medical regulating system is activated as necessary for monitoring and controlling the movement of patients through the casualty evacuation and health services support system.

Services

Provides for administration, management, and employment of military organizations.

A-6. CSSE OPT Common Tactical and CSS Tasks and CSSE Purpose Statements

Tactical Tasks that under certain conditions could be assigned to a CSSE: (MCDP 1-0)

Enemy oriented

Clear (bypassed units, operating areas, newly created rear area)

Contain (EPWs, DPRES, contagium)

Reconnoiter

Terrain oriented

Clear

Control

Occupy

Reconnoiter

Retain

Secure

Friendly oriented

Disengage

Displace

Exfiltrate

Follow (and assume/and support)

Linkup

Protect

CSS Tasks that could be assigned to a CSSE: (see para. A-8 for definitions)

- Combat service support.
- Transportation support.
- General engineer support.
- Health services support.
- Supply support (includes such key items as water, fuel and ordnance support).
- Maintenance support.
- Services support.
- * Personnel support (included in numerous subfunction definitions).

A-7. CSS In Order To—Purpose Statements

Allow	Cause
Create	Deceive
Enable	Facilitate
Influence	Prevent
Protect	Support

A-8. Definitions and CSS Mission Descriptions

logistics—The science of planning and carrying out the movement and maintenance of forces. In its most comprehensive sense, those aspects of military operations which deal with: **a.** design and development, acquisition, storage, movement, distribution, maintenance, evacuation, and disposition of materiel; **b.** movement, evacuation, and hospitalization of personnel; **c.** acquisition or construction, maintenance, operation, and disposition of facilities; and **d.** acquisition or furnishing of services. (JP 1-02)

combat service support—The essential capabilities, functions, activities, and tasks necessary to sustain all elements of operating forces in theater at all levels of war. Within the national and theater logistic systems, it includes but is not limited to that support rendered by service forces in ensuring the aspects of supply, maintenance, transportation, health services, and other services required by aviation and ground combat troops to permit those units to accomplish their missions in combat. Combat service support encompasses those activities at all levels of war that produce sustainment to all operating forces on the battlefield. Also called **CSS**. (JP 1-02)

sustainment—The provision of personnel, logistic, and other support required to maintain and prolong operations or combat until successful accomplishment or revision of the mission or of the national objective. (JP 1-02)

sustainability—The ability to maintain the necessary level and duration of operational activity to achieve military objectives. Sustainability is a

function of providing for and maintaining those levels of ready forces (personnel), materiel, and consumables necessary to support the military effort. (MCWP 4-11)

Supply (refer to MCWP 4-6 for further information)

Supply – The procurement, distribution, maintenance while in storage, and salvage of (all classes of) supplies, including the determination of kind and quantity of (all classes of) supplies. (JP 1-02)

Determine requirements – routine, pre-planned, long range. (MCWP 4-11)

Procurement – The process of obtaining personnel, services, and equipment. (JP 1-02)

Distribution – That functional phase of military logistics that embraces the act of dispensing material, facilities, and services. (JP 1-02) For the MAGTF, distribution is the issue of supplies and equipment to using units or to intermediate supply points for future issue. (MCWP 4-11)

Disposal – The process of eliminating excess, obsolete, surplus, or unserviceable property. Disposal may include transfer, donation, sale or abandonment. It does not include redistribution or reissue. (MCWP 4-11)

Storage – Storage is the safekeeping of supplies and equipment in a ready-for-issue condition. The storage function includes the process of receipting for supplies and equipment from the source. It includes the responsibility to maintain accurate inventory controls. Similarly, care in storage is a responsibility of the activity holding the supplies and equipment. (MCWP 4-11)

Salvage – The saving or rescuing of condemned, discarded, or abandoned property, and of materials contained therein for reuse, refabrication, or scrapping. (JP 1-02)

Maintenance (refer to MCWP 4-24 for further information)

Maintenance (material) – 1. All action taken to retain materiel in a serviceable condition or to restore it to serviceability. It includes inspection, testing, servicing, classification as to serviceability, repair, rebuilding, and reclamation. 2. All supply and repair action taken to keep a force in condition to carry out its mission. (JP 1-02) The Marine Corps includes efforts to update and upgrade the capability of materiel as a function of maintenance. (MCWP 4-11)

Inspection and classification – The checking or testing of an item against established standards and the assignment of that item to a maintenance

category based on established rules. Inspection and classification are the first and last tasks that a user and maintenance activity perform on a piece of equipment. (MCWP 4-11)

Servicing, adjustment, tuning - Maintenance tasks of operable equipment. Servicing may include all repairs or maintenance, including adjustment and tuning. Tuning is a process of adjusting equipment to achieve precise functioning. Tuning often refers to engine adjustments. (MCWP 4-11)

Testing and calibration – Maintenance tasks for precision instruments. The testing process compares the accuracy of the instrument to an established standard. Calibration is the adjustment of precision instruments that deviate from the standard. (MCWP 4-11)

Repair – The restoration of an item to serviceable condition through correction of a specific failure or unserviceable condition. (JP 1-02)

Modification – The maintenance action to change the design or assembly characteristics of systems, end items, components, assemblies, subassemblies, or parts. (MCWP 4-11)

Rebuilding and overhaul – Maintenance functions. Rebuild is a depot maintenance function, and depending on the item, overhaul may be either a depot or intermediate maintenance function. When rebuilding or overhauling items, the maintenance activity also performs modifications not previously made. (MCWP 4-11)

Reclamation – Restoration of condemned, scrapped, abandoned, or damaged materiel, parts, and components. Reclamation action includes repair, refabrication, or renovation. Reclamation is a depot function. (MCWP 4-11)

Recovery and evacuation – The process of retrieving or freeing immobile, inoperative, or abandon materiel from its location. It includes returning the material to operation or to a collection point for repair, evacuation, or disposal. Recovery is an owning-unit responsibility. Evacuation moves materiel from one CSS maintenance activity to another for repair or other disposition. It includes moving equipment between the owning unit's maintenance site and that of the CSSE or MAL. Evacuation is a CSSE responsibility (MCWP 4-11)

Transportation (refer to MCWP 4-11.3 for further information)

Transportation – The movement from one location to another by means of railways, highways, waterways, pipelines, oceans, and airways. It includes movement by military and/or commercial assets. For the MAGTF, transportation support is that support required to place

sustainability assets (personnel and materiel) in the proper locations at the proper times to initiate and maintain operations. (MCWP 4-11)

Embarkation – The process of putting personnel and/or vehicles and their associated stores and equipment into ships and/or aircraft. (JP 1-02)

Landing support – The assistance provided to affect the efficient and responsive *throughput* of personnel, supplies, and equipment during the ship-to-shore movement phase of the amphibious assault or across beaches in support of operations ashore. It includes control of the flow of personnel and materiel across the beach and into landing zones. Landing support does not end when the MAGTF completes the amphibious assault but continues through landing of the assault follow-on echelon. Landing support includes the evacuation of casualties and EPWs. Landing support does not include all of the support functions that the landing force support party performs. The LFSP is a task organization that performs many other combat service support and non-CSS functions. A common misconception is that the landing support function includes tasks that are sub-functions of the other five CSS functions. (MCWP 4-

11) Throughput – The average movement of containers, wheeled vehicles, tracked vehicles, breakbulk cargo, and bulk liquid cargo that can pass through a port or beach daily. (JP 4-01.6)

Logistics Over the Shore (LOTS) operations – The loading or unloading of ships with or without the benefit of fixed port facilities, in friendly or nondefended territory, and, in time of war, during phases of theater development in which there is no opposition by the enemy. Or as a means of moving forces closer to tactical assembly areas dependent on threat force capabilities ((JP 4-01.6)

Motor transport – Surface transportation using wheeled vehicles. It is the most versatile mode of transportation. It links aerial ports, ocean ports, supply centers, rail, and inland waterway terminals. During combat operations, it links beach support areas, the FCSSA, CSSAs, and combat units. After air, MT is the most flexible mode. It is an all-weather mode that the MAGT commander can use over any trafficable terrain, including off road. MT units can move almost any type of cargo. They can provide either local, line, or zonal hauls. The commander may use organic, attached, or supporting MT assets to make moves. Commanders must establish priorities and allocate their assets based on the situation. (MCWP 4-11)

Movement control – The planning, routing, scheduling, and control of personnel and cargo movements over lines of communications (JP 1-02)

Port and terminal operations – Port: a place at which ships may discharge or receive their cargos. It includes any port accessible to ships on the seacoast, navigable rivers or inland waterways. (JP 1-02) Terminal operations: The reception, processing, and staging of passengers, the receipt, transit storage and marshaling or cargo, the loading and unloading of ships or aircraft, and the manifesting and forwarding of cargo and passengers to destination. (JP 1-02)

Air delivery – The unloading of personnel or materiel from aircraft in flight (JP 1-02). It can be affected from either a fixed-wing aircraft or a helicopter, and it may be a low, high velocity drop, or free drop. (MCWP 4-11)

Material handling – The movement of materials (raw materials, scrap, semi-finished, and finished) to, through, and from productive processes, in warehouses and storage, and in receiving and shipping areas. (JP 1-02)

Materials handling equipment – Mechanical devices used for handling supplies with greater ease and economy. (JP 1-20) Effective use of available MHE is essential to movement control and maintaining the throughput of supplies and equipment. There is a limited amount of MHE in a MAGTF. (MCWP 4-11)

Freight or passenger transportation – It encompasses the movement of personnel, equipment, and supplies via all modes (air, bus, rail, truck, and water). It includes planning for troop movements on scheduled or chartered trains, aircraft, and buses in CONUS and OCONUS. (MCWP 4-11)

General Engineering (refer to MCWP 3-17 for further information)

Engineering reconnaissance – The gathering of specific, detailed technical information required by supporting engineer forces in order to prepare for and accomplish assigned missions. (MCRP 5-12C)

Horizontal and vertical construction – Deliberate engineering projects normally involve time, manpower, materiel, and equipment intensive tasks. These tasks usually relate to survivability and sustainability efforts. (MCWP 4-11)

Facilities maintenance – The routine recurring work required to keep a facility (plant, building, structure, ground facility, utility system, or other real property) in such condition that it may be continuously used, at its original or designed capacity and efficiency for its intended purpose. (JP 1-02)

Demolition and obstacle removal – demolition: The destruction of structures, facilities, or material by use of fire, water, explosives,

mechanical, or other means (JP 1-02); obstacle removal: The physical relocation of any structure, facility, or material so it no longer exerts a negative influence on friendly activities. (MCWP 4-11)

Explosive ordnance disposal – The detection, identification, on-site evaluation, rendering safe, recovery, and final disposal of unexploded explosives ordnance. It may also include explosive ordnance that has become hazardous by damage or deterioration. (JP 1-02)

Health Services (refer to MCWP 4-11.1 for further information)

Health maintenance – Those tasks to ensure that the unit and its personnel are medically ready for combat operations. Included are routine sick call, physical examinations, preventive medicine and dentistry programs, records maintenance, and medical reporting. (MCWP 4-11)

Casualty collection – The assembly of casualties at collection and treatment sites. It includes protection from further injury while awaiting evacuation to the next level of care. Planning for casualty collection points must include site selection and manning. (MCWP 4-11)

Casualty treatment – Triage and all levels of care from self-aid to buddy aid through resuscitative care. (MCWP 4-11)

Temporary casualty holding – Facilities and services to hold sick, wounded, and injured personnel for a limited time, usually not to exceed 72 hours. (MCWP 4-11.1)

Casualty evacuation – The movement of the sick, wounded, or injured. It begins at the point of the injury or the onset of disease. It includes movement both to and between medical treatment facilities. Units may use any vehicle to evacuate a casualty. Aero-medical evacuation should replace surface evacuation at the first opportunity. (MCWP 4-11)

Services (refer to MCWP 4-11.8 for further information)

Dispersing – Dispersing services include, but are not limited to, claims, currency exchange, personnel pay and check cashing. (MCWP 4-11.8)

Postal – Postal services include processing personal, official, and free mail, in addition to selling stamps and weighing packages. (MCWP 4-11.8)

Legal – Legal services involve command advice; supply, injury, or death investigation, advice, and review; claims processing; legal review of operations plans; law of war training; legal assistance; administrative separations processing; nonjudicial punishment advice; and summary, special, and general court-martial processing. (MCWP 4-11.8)

Security support – Provided primarily by the MP company, H&S battalion, FSSG. It cannot provide all security support function simultaneously. The MP company support the MAGTF by providing battlefield circulation control (traffic control, route security, route recon), area security, EPW management, and law and order enforcement operations. (MCWP 4-11.8)

Exchange – During deployment, exchange services are provided by a tactical field exchange, which is established when no other source of Class VI support is available. (MCWP 4-11.8)

Civil affairs – The activities of a commander that establish, maintain, influence, or exploit relations between military forces and civil authorities, both governmental and nongovernmental, and the civilian populace in a friendly, neutral, or hostile AO in order to facilitate military operations and consolidate operational objectives. CA may include performance by military forces of activities and functions normally the responsibility of local government. (JP 1-02)

Graves registration – A program that provides for search, recovery, tentative identification, and evacuation, or temporary interment. The geographic combatant commander only may authorize temporary interment. Disposition of personnel effects is included in this program. (MCWP 4-11) Mortuary Affairs – M.A. requires special capabilities that are beyond the capabilities of the MAGTF. The U.S. Army provides M.A. for the DoD. During MAGTF operations, M.A. operations consist of search, recovery, and identification of deceased personnel and the final disposition of their personal property. (MCWP 4-11.8)

This page intentionally left blank.

Appendix B

MAGTF Operations CSSE Considerations

The material in this appendix is found in MCDP 1-0, MCWP 4-1, MCWP 4-11, FM 71-100, FM 100-15, FM 100-10, and FM 63-20.

Amphibious Operations

CSS in the Assault Phase. To sustain the assault, CSS operations must support tactical operations. The buildup of a CSS capability ashore must parallel the tactical buildup. Landing support operations begin with the landing of the advance elements of the landing force support element, and they continue until the operations ends. CSS support early in the amphibious operation is limited to the provision of essential supplies and services (e.g., rations, water, ammo, fuel, medical support). Until the CSSE is established ashore, non-aviation-peculiar CSS operations focus on the landing force support element and its shore element and on the helicopter-landed support from ships. Aviation logistics support generally remains aboard ship or out of the area at supporting airfields.

Ship-to-Shore Movement. During the amphibious assault, the commander, amphibious task force is responsible for controlling the principle means of transport: landing craft, landing ships, amphibious vehicles, and helicopters. Navy control officers aboard control ships supervise waterborne elements. The Navy control officer in the helicopter direction center of the helicopter transport group supervises helicopter elements. Landing force control agencies assist and advise the Navy control organization.

Landing Force Control Organization. The landing force control organization interfaces with the Navy control organization for the purpose of keeping it apprised of landing force requirements and priorities as well as advising on transportation methods and phasing of serials. Although the exact structure of the landing force control organization may vary, the general composition remains the same. Combat operations centers of the various landing force elements afloat are the focal points for monitoring and directing operations ashore. The landing force support element, composed of Navy and landing force elements, establishes itself ashore as soon as possible to ensure an

organized and uniform flow of personnel, equipment, and supplies over the beach in support of the landing force scheme of maneuver. The tactical-logistics group is a temporary task organization constituted from within the landing force to provide liaison between the landing force control organization and the Navy control organization.

Ship-to-Shore Movement Control. The control of all landings is the responsibility of the Navy control organization. Tactical-logistics groups aboard various control ships provide assistance.

Unloading Operations. Generally, ship-to-shore movement has two phases: the initial unloading period and the general unloading period. Selective unloading characterizes the first period and general unloading characterizes the second. Sea-basing, another option for supporting operations ashore, is a specialized form of logistics support that does not involve either unloading or a ship-to-shore movement in the traditional sense.

Supporting Close Operations

Tactical and operational CSS involves support to the three elements of the battle—close, deep, and rear. Just as the commander is responsible for conducting operations throughout the depth of his area of responsibility, the CSS commander is responsible for supporting the battle in those three areas. While principles remain the same in supporting the various forms of maneuver, CSS personnel use different techniques in each. Complicating the support mission is the possibility of simultaneous operations. In addition to simultaneous operations within a campaign, forces may conduct more than one campaign at the same time within a theater. CSS personnel must be prepared to support a wide range of synchronized operations and shift support operations to meet the needs of current and future operations.

Offense. A commander may launch an offensive operation at any time and with minimum advance warning. CSS planners should keep continuously informed of operation plans. They anticipate offensive operations even while supporting other types of operations. Similarly, they keep the combat operations planner apprised of the CSS situation to ensure plans are supportable. The G-1, G-4, and G-5 are the principle links between operations planners and the CSS operators. The objective of CSS conducted in support of offensive operations is to generate tempo, extend operational reach, and increase the endurance of the force by supporting as far forward as possible with a logistics system that is optimized for throughput.

To prepare for an attack, CSS elements ensure that all support equipment is ready and that supplies are best located for support. They ensure that enough transportation is available to support the tactical and support plans. Commanders ensure that all support elements understand their responsibilities.

The forward deployment of CSSEs must take into account the vulnerability of the unit to enemy counter-attack and maneuver element requirements for space and roads. CSSEs, especially MCSSDs, require security assistance. They need to be written into the fire support plan, have their own list of on-call targets, and have assets to call for fire from artillery and aviation platforms, as well as have established procedures for actions upon enemy contact.

The fundamental principle of supply support in the offense is responsiveness—to the supported unit. Supply support is typically more difficult in the offense than in the defense because of the ever-changing locations of units and their support areas. The concept of support becomes even more important and increasingly difficult to execute. CSS planners must coordinate preparations and unit positioning with deception plans to avoid giving away the element of surprise. Consequently, most CSS operations will be conducted under the cover of darkness.

Personnel—As advancing combat formations extend control of the battle area, manning elements meet the increased challenge of reconciling and reporting command and control strength information, reporting casualty information, and sending replacements.

Ammunition—Ammunition expenditure is typically less in offensive operations than in heavy defensive combat. However, responsive support for offensive operations is critical. It is also more difficult due to the lengthening of supply lines and the need for user resupply vehicles to stay close to firing elements. In preparing for the attack, logistics planners consider the following:

- Placing ammunition close to the user.
- Preparing ammunition supply points and ammunition transfer points to rapidly move forward as the attack advances.
- Stockpiling artillery ammunition at designated firing positions (possibly forward of current positions).

- Moving ammunition forward with advancing elements to ensure that basic loads can be replenished quickly.
- Fully arming weapons systems before the attack.

Fuel—Offensive operations use large quantities of fuel. As a result, logisticians prepare for the attack by building up stocks in forward sites—while avoiding signaling intentions to the enemy. They also ensure that fuel supply elements can move forward as the attack develops. Logisticians intensely control bulk transporter assets throughout the AO. This is particularly true if the attack is highly successful and results in exploitation or pursuit.

Maintenance—Planners ensure maintenance operations support momentum and massing at critical points. Maintenance personnel maximize momentum by repairing at the point of malfunction or damage. They enhance momentum by keeping the maximum number of weapon systems operable and mobile. Emphasis is on battle damage assessment and rapid return of equipment to the supported unit. Repair and recovery personnel perform their mission in forward areas.

There is an increase demand on unit and DS maintenance resources. Unit mechanics accompany or follow the most forward attacking elements. DS maintenance elements in the form of maintenance support teams (MST) may also operate with the spearhead of the attack. Plans include recovery and evacuation of systems and components with repair in forward areas limited to component replacement, adjustments, and servicing. Maintainers use battle damage assessment and repair to rapidly return disabled equipment to the commander by expeditiously fixing essential equipment. Use of air transportation for maintenance detachments and limited repair parts as well as attaching maintenance detachments to maneuvering units may reduce assessment and repair times.

MSTs and other elements need the right people (skills and numbers), equipment (transportation, tools, test measurement and diagnostic equipment, and communications), and supplies (components, assemblies, and repair parts). Highly trained mechanics make hasty, but informed, decisions as to—

- What they can fix on the spot.
- What they should evacuate.

- What is not repairable and they should use for cannibalization.
- What they should abandon after making it useless to the enemy, if operational necessity and damage require it.

If repairers cannot fix equipment on the spot, they arrange to evacuate it or leave it for following units to repair. MSTs will work closely with the supported unit to make maximum use of lulls in the battle to get as much equipment as possible ready for when action resumes. In high tempo environments, CSSEs will arrange the use of air transportation to deliver parts forward and evacuate damaged equipment. MSTs report the location of items left in the field to their parent CSSE (maintenance detachment). The CSS element coordinates recovery and evacuation.

Supply—The most critical supplies are Classes I, III, V, and IX. The two most critical classes of supply are Class III and V. To handle fuel consumption, forward stocks are built up and the Class III point is prepared to move forward or set-up forward tactical refuel points within a deliberate or hasty repair and replenishment point (RRP). Though ammunition expenditures may not be as high as with a heavy defense, responsive resupply is essential. A significant problem will be maintaining this support over extended supply lines. Ammunition transfer points or supply points should be as far forward as tactically feasible, possibly as part of a RRP. Other supply considerations include:

- Weapon systems replacements.
- Use of preplanned push packages of essential items, such as Class I (W), Class III (W&P), Class V (A&W), Class VIII (A&B), Class II (NBCD).
- Obstacle-breaching and bridging requirements.
- Potential use of captured supplies, especially vehicles and fuel (coordinate with IntelO).
- Increased use of MREs.
- Use of controlled exchange and cannibalization as a source of repair parts.
- Use of aerial and helicopter delivery of supplies.
- Availability of HNS, particularly procurement of Class III (P), Class IV building supplies, construction items, and barrier materiel and selected Class VI sundry items.

Transportation and Distribution—Movement requirements heavily tax transportation resources. There may be a wide dispersion of units and

lengthening lines of communication. There may also be an increased requirement for personnel replacements and some classes of supply, for example, fuel and weapon systems. These factors demand close coordination and planning for the use of transportation assets. Techniques such as supply push (unit distribution) or refuel-on-the-move (Jiffy-mart) may need to be incorporated into the concept of support. Resources (transportation and supply infrastructure) that may be secure in the more stable environment of defense may not be reliable in the offense. The opening and securing of routes must be included in the tactical plan.

The mobility of offensive operations requires reliance on motor and air transport. When considering the air transport mode, the planner also considers aerial delivery. Movement control personnel set priorities in accordance with the JFC's priorities to ensure that transportation assets meet the most critical needs. Aerial delivery or external helicopter delivery may be in greater demand.

Medical—Offensive operations increase the burden on medical resources. Planners can expect the deliberate attack, particularly, to result in high casualties rates. High casualties and long evacuation lines will stress medical treatment and evacuation resources to their limits and may dictate augmentation for medical detachments. Fleet hospitals move forward in preparation for offensive operations to provide maximum treatment and holding facilities. When organic medical resources are insufficient, evacuation may require use of non-medical transportation assets, adding additional stress to an already overtaxed transportation system.

During the offense, medical facilities usually move forward by echelon. Initial medical elements are located as far forward as combat operations allow. Forward locations are operational before personnel close rear locations. At the onset of combat operations prepackaged blocks of Class VIII will be pushed to battalion and regimental aid stations and CSSE shock trauma platoons. Medical facilities maintain close communications with personnel elements to verify and report casualty information. Evacuation and personnel replacement plans must be in place before combat operations begin. In fluid, high tempo operations pre-designated ambulance exchange/patient collection points will be identified along the axis of advance and evacuation routes. Basic characteristics of medial support in offensive operations include:

- As areas of casualty density move forward, the routes of evacuation lengthen, requiring forward movement of medical assets.
- Heaviest patient loads occur during disruption of enemy main defenses, at terrain or tactical barriers, and during assaults on final objectives.
- Medical elements of the regiments and CSSEs treat indigenous and displaced persons that become sick or wounded as a result of military operations. In coordination with the MEF G1, these people are moved to civilian treatment facilities immediately after being treated.
- The main attack normally receives the greatest medical support.

Services—The main CSS effort in the offense is to provide only the most critically needed support to the attacking force. Most Service functions play a minor role. Commanders suspend some services until the situation stabilizes. Laundry, clothing exchange, and field showers may be temporarily suspended. Mortuary affairs/graves registration is a major exception. It continues and may intensify. Adequate MA/GR supplies must be on hand. Mortuary affairs detachments maintain close communications with personnel elements to verify and report casualty information. They also aid in the identification of remains.

General - While Classes I, III, and V are the most important supplies in the offense, planners consider all classes of supply. While the need for barrier and fortification material decreases, for example, the requirement for obstacle, breaching, and bridging material may increase. Weapons system requirements may also be higher since weapon systems exposure to fire during offensive operations is greater.

Defense. The role of the CSSE in the defense is to support defensive battles while maintaining the capability to shift to the offense with little notice. Facilities and CSSAs should be far enough in the rear to be out of the flow of battle and relatively secure. They should not be so far back that they make the support effort less effective. CSS units locate, where possible, out of the reach of potential penetrations in protected and concealed locations without sacrificing support and out of the movement routes for retrograding units. They should have access to good road nets and make maximum use of built-up areas. Dispersion should be consistent with support requirements, control, and local security. Air defense coverage should be planned and emplaced. Commanders

emphasize passive security measures. CSSEs must dig-in as much as time and equipment allow, including positions for all personnel and equipment. CSS elements routinely operate at night for self-protection and to not expose prepared positions and routes to enemy observation.

Personnel – Maneuver forces may have to rapidly displace while simultaneously carrying current command and control strength data to the rear. Linking replacement activities and equipment issue points requires close coordination among medical, supply, transportation, maintenance, and personnel managers. This is especially critical for Marines returning to duty from hospitals who may need uniforms, personal equipment, and weapons.

Ammunition – Logisticians position ammunition supply and transfer points to facilitate rapid and responsive support. Using units may stockpile Class V supplies in excess of their basic loads. Class V supplies may also be placed at successive defensive positions. This provides easy access and lessens transportation problems during the withdrawal to those positions. The defense usually requires a greater volume of Class V supply than does the offense. Class IV and V supply requirements, especially for mines and barrier materials, are heaviest during the preparation for defense.

Fuel – The form of defensive operation influences fuel requirements. An area defense typically requires less fuel than an offensive operation. Mobile defenses, on the other hand, generally involve greater fuel consumption than the more static-oriented area defense. In either case, forward stockpiles of fuel may be appropriate.

Maintenance – The primary thrust of the maintenance effort in the defense is to maximize the number of weapon systems available at the start of the operation. Once the defensive battle begins, the thrust is to fix the maximum number of inoperable systems and return them to battle in the least amount of time. This requires forward support at, or as near as possible to, the intended AO of the systems. Maintenance support and contact teams locate well forward. Typically, supported units are not as widespread as in the offense. Critical components are placed forward to overcome the effects of combat wear and damage. Planners also consider augmenting the maintenance support to covering force elements when they return to the main battle area. Such support may allow them to return more rapidly to fighting condition. Inspections and technical assistance are emphasized. An area defense has less overall movement. A mobile defense has many of the same implications as offensive operations.

Supply - Supply activity will be the most intensive during the preparation stage. Stockpiles should be far forward and at successive defensive positions, especially critical supplies (fuel, ammunition, barrier materiel). While many supplies—especially munitions and barrier material—must be far forward, they must also be as mobile as possible. This allows continuous support as combat power shifts in response to enemy attacks. Throughout the defense, Class V expenditures are likely to be high. The CSSE must position the ASPs or transfer points to maximize responsiveness. Requirements may be higher for chemical filters, MOPP gear, and decontaminates. In many defenses, however, fuel consumption will be lower than during offensive operations, notwithstanding the requirements of a mobile defense. Plans must be made to destroy stockpiles or supply dumps should events necessitate.

Transportation and Distribution – Transportation resources are most critical in the preparation stage of the defense. Stockpiling supplies requires extensive transportation. So does shifting personnel, weapon systems, and supplies laterally or in depth to meet the probable points of enemy attack. Transportation assets move Class IV and V barrier supplies as close to the barrier sites as possible. Logisticians take action to increase the flow of these materials as soon as they know of the intention to conduct a deliberate defense.

Medical – Medical support of defensive operations is more difficult than in the offense. Casualty rates are lower, but forward access is complicated by enemy action and the initial direction of maneuver to the rear. The task of front-line medical units is to stabilize the wounded, sort them, and evacuate patients. Priorities for evacuation depend on the location of, and will be complicated by, the probable enemy main effort. Enemy activities may inhibit evacuation as well as increase the casualties among medical personnel and damage to medical and evacuation equipment. Heaviest casualties, including those caused by enemy artillery and NBC weapons, may be expected during the initial enemy attack and in the counterattack. The enemy attack may disrupt ground and air communications routes and delay evacuation of patients to and from aid stations. Clearing facilities must be located away from points of possible penetration. Locations must not interfere with reserve force positioning. The depth and dispersion of the mobile defense create significant time and distance problems in evacuation support to security and fixing forces. Security forces may be forced to withdraw while simultaneously carrying their patients to the rear. Peak loads may require

additional helicopter evacuation capability. Non-medical transportation assets may not be available to assist in casualty evacuation.

Services – The services of laundry and shower operate routinely where the tactical situation permits. Such facilities locate out of the way and should not interfere with tactical operations. Mortuary affairs detachments evacuate the dead quickly. This can be a huge morale factor in a deliberate defensive position. Feeding of A and B rations tends to increase and aerial delivery may be critical for cut-off, screening, or guarding units.

Retrograde. A retrograde operation is rarely an end in itself. Retrograde operations usually terminate in the establishment of new defensive positions. CSS planners usually plan for a three-phased operation. While planning for the actual retrograde, CSS elements continue to support the current operation. Next, CSS elements support the retrograde of delaying forces and the forces out of contact moving to the rear. Finally, the CSSEs support units at the new position as they arrive. Logisticians plan for support of the old defense and the transition to and conduct of new operations. Supporting units maintain communications with supported units. CSSEs and their commanders must maintain constant situational awareness. Maneuver elements may at any given time be defending, delaying, attacking, or withdrawing. CSS elements must be echeloned to continue to support the delaying force at an old defensive position while establishing support to withdrawing elements moving rearward. Any CSS personnel and equipment not essential to supporting forward combat forces should be moved as soon as feasible.

Ammunition and Fuel – Planners consider having limited, mobile combat service support forward to support the covering force. This will strain the transportation system. Helicopter and aerial delivery should be considered for these forces. Planners may arrange to position fuel on fuel trucks or rail cars to avoid the last minute evacuation of empty fuel bladders. If sufficient rolling stock is not available for mobile Class V supply points, place ammunition throughout the delaying or covering force area so that forces can fall back on a continuous supply.

Maintenance – Continuous maintenance support throughout the retrograde operation is essential to keep the maximum number of weapon systems operational. Maintenance planners concentrate on providing essential support forward while moving the bulk of the maintenance effort to the rear. Time for repairs is limited. Organize MSTs/MCTs to

provide support to essential weapon systems in the forward areas. Maintenance efforts concentrated on the “quick fix” using assemblies brought forward to facilitate rapid turnaround of weapon systems. Battle damage assessment and repair of equipment take priority. Maintainers maximize use of controlled exchange and cannibalization. Evacuation assets forward will be scarce. Repair to transportation assets is critical. HET support should be coordinated by the senior movement control organization. Priority of support is determined by the commander but is usually given to units that have completed the move and are preparing new positions.

Transportation and Distribution – Retrograde operations severely strain the transportation system. Assets move essential supplies, materiel, and personnel rearward. They also support elements that are not fully mobile (movable but not mobile). It is essential that movement control personnel and agencies maximize the use of all available transportation assets—watercraft, railroads, air assets, and line haul. They program all movements throughout the entire retrograde to eliminate unnecessary surge periods and ensure LOCs stay open. They ensure units adhere to set priorities. Highway movements are regulated (a transportation function) and then controlled (a provost marshal function) to avoid highway congestion. Planners carefully design traffic circulation, identify evacuation routes, and publish movement control schedules. No transportation asset should go forward with cargo and return empty, each asset should be accounted for and used in the retrograde plan.

Supply – Supply efforts during the retrograde concentrate on the most critical supplies: Classes I, III, V, and IX. The key to providing responsive supply support is to project force supply requirements throughout the operation and to distribute these forecasted supplies. The logistics system pushes forward only critical supplies. Logisticians divert supplies entering the area to new positions. To minimize the movement of supplies that must move from the forward areas to the new rear supply areas those forward stocks are “dried up” at the forward supply points. Supply detachments will begin their retrograde movement before combat units to minimize interference with maneuver. This allows supply point/tailgate distribution points to be set-up on the evacuation route. Non-critical classes of supply (Class I, II, IV, VI, and VII) will be identified and moved. Guidance on civilian property should come from the MAGTF or JTF commander. Supplies that cannot be moved should be destroyed.

Medical – Medical support—allocation of hospitals and evacuation policy—is tied closely to the retrograde plans to ensure preservation of

support capabilities for succeeding operations. While hospitals move they temporarily lose their bed capacity. During the retrograde period there may not be enough beds. If temporary facilities are not available (civilian sites) patients may be evacuated straight out of the Combat Zone to sites in the Communications Zone or to CONUS. Medical regulators may have to request non-medical transportation to move less severely and ambulatory personnel. HNS would be used when possible.

Evacuation routes may be congested with withdrawing forces. Evacuation assets will be required to move patients that would normally be treated at BAS, RAS, and CSSE STP sites. Locations of successive treatment sites must be predetermined. Factors to consider:

- Time available for medical operations is likely to decrease.
- Patient evacuation will be complicated by movement of troops and materiel on evacuation routes and by enemy disruption of C4. Unit SOPs should address evacuation plans under such conditions.
- Sorting patients becomes more critical.
- When patient loads exceed the means to move them, the MAGTF or JTF commander must decide whether to leave patients behind. Medical personnel and supplies must be left with patients who cannot be evacuated.
- For continuity of support, the next rearward aid locations must be operational before the forward sites are closed.

Services – Commanders identify essential services. Personnel and facilities to perform other services evacuate early and set-up in the new defensive areas. Commanders may also use those resources to support a deception operation or aid other units in their movement. Field feeding relies on operational rations.

Other MAGTF Tactical Operations

Retrograde

Retrograde operations rely on logistic support. Logistics planners advise commanders and operational planners on the status, capabilities, and limitations of the logistic support for retrograde operations. The ability to conduct a timely withdrawal is especially dependent on sufficient transport. Logisticians assist in formulating COAs, adjusting support operations to conform to the commander's decisions. Logistics unit

commanders and staff officers play a key role in assisting and preparing the force for retrograde operations.

Problems concerning the responsibility for the protection, relocation, evacuation, and destruction of CSS facilities and other installations, to include identifying who has the authority to direct such action, must be resolved and made known to the affected commanders.

Sustainment of retrograde operations poses several challenges. Sustainment planning must balance the requirement to sustain subordinate maneuver forces with the requirement for early displacement of corps level (FSSG) sustainment facilities, to both free terrain for operational use by maneuver forces and to support the continuing conduct of the retrograde.

Key to movement planning is the prioritizations of movement command and control as well as the means of movement. The tactical scheme of the *delay* is to force the enemy to deploy repeatedly against successive friendly battle positions. In ordering a *delay*, the MAGTF commander specifies his CSS priorities.

CSS during a *withdrawal* must focus on fueling, arming, and recovering the force. The prioritization of the activities will be METT-T dependent and may vary from one unit to another.

CSS operations in the *retirement* are characterized by increased consumption of fuel and decreased consumption of ammunition.

Retrograde River Crossing. The commander must get all nonessential combat support and CSS across the river early and disperse them in locations that can support the operation. Bridging equipment that cannot be recovered quickly may have to be destroyed. Whenever possible, it should be recovered early and replace with assault float bridging and unit assets which can be recovered quickly. Existing bridging and other crossing means, such as ferries, may need to be destroyed. Close coordination with the delaying force can preclude cutting off friendly forces. The MAGTF crossing force commander will normally reserve such authority until the delaying force has crossed.

Obstacle Crossing (River Crossing). CSS for divisions conducting river-crossing operations is no different than sustainment operations during the offense or defense. Transportation support for engineer units and bridging materiel is the primary concern, with maintenance of bridging equipment and fuel requirements a secondary consideration. Other corps level (MEF) support to the maneuver units conducting a river crossing could include specific intelligence collection concerning river conditions and helicopter support to a division or regiment conducting air assault operations on the far shore.

Passage of Lines/Relief in Place. As with any operation that involves the hand-off of combat responsibility from one force to another, passage of lines and relief operations are extremely complex and involve a degree of risk.

The priority for CSS support will be provided by the MEF/JTF commander to the forces involved in the operation. Component commanders and the NCA will be made aware of the CSS priorities set by the force commander. These commands devise plans that will provide CSS and movement support within the communications zone. In mature theaters and theaters with a viable host nation infrastructure; the theater army will coordinate HNS for the overall operation.

The MEF establishes liaison and coordinates its passage with the other force involved. The following coordination should be effected between units involved: Passage of lines or relief in place concept to include deception, timing, movement, and CSS concept; exchange of current SOPs, operation and deception plans, tactical situations, CS and CSS status, and intelligence; definition as to what combat support and CSS will be provided by the stationary to the passing force or relieved to relieving force to include supply, maintenance, NBC decontamination, medical, and movement priorities and control. The MEF plan should clearly establish the MAGTF concept of support, to include the identification of CSS to be provided by the forces involved in the passage or relief.

Link Up. Before link up has been initiated, CSS is the responsibility of each unit involved in the link up operation (whether it be converging forces, a force closing on a previous secured objective, forces encircling an enemy force, or during a counter attack). Converging forces should

coordinate CSS that can be mutually provided to facilitate the link up operation and /or the subsequent mission.

Encircled Friendly Force Operations. If the mission is to defend, the MAGTF must act rapidly to preserve itself. The commander must assume control of all encircled forces and assess the overall defensive posture of the force. In assuming an effective defense and contributing to the combat effort, the commander has the responsibility to reorganize logistic support. After assessing the MAGTF logistic posture, the commander should centralize all supplies and establish strict rationing and supply economy procedures. If possible, aerial resupply and casualty evacuation by aviation and tactical air support should be arranged. Centralized medical and graves registration operations should be established.

Breakout from Encirclement. The attack to break out only differs in that the force must maintain a simultaneous defense in other areas at the same time. The commander must integrate the CSS elements into the main body. He must provide for forces left behind. If wounded and equipment must be left behind because of exfiltration or limited forces, sufficient supplies and medical personnel must be left to attend the wounded, and the equipment should be incapacitated.

Military Operations Other Than War. Supporting operations other than war places special demands on the logistics system. Operation Andrew, in the wake of Hurricane Andrew's devastation of southern Florida in 1992, is an example of a disaster relief mission where Marines supported local and state domestic authorities. Throughout Andrew, Marines distributed relief supplies, constructed temporary shelters, and removed debris.

Other typical support operations involve constructing roads, bridges, and other key infrastructure and providing emergency medical support abroad in support of diplomatic initiatives. Combatant commanders tailor logistic support of these operations based on theater needs much as they would do in wartime situations. In some cases, CSS units may be the only units involved in operations other than war. The logistic operation may well be the main effort in certain situations. The level of support should not overwhelm indigenous forces or cause them to become solely dependent on US resources. US efforts must be integrated with host

nation or local resources and activities. ‘The wide variety for potential support requirements demands a flexible logistics structure tailored to specific missions.

Arms Control. Logistic support to units or individuals providing assistance in monitoring the proliferation of weapons and technologies, verifying the status of arms control agreements, and in demilitarizing munitions and hardware.

Combating Terrorism

DoD Support to Counterdrug Operations. Logistics support includes loaning equipment: providing engineering, air, and surface transportation; providing maintenance; and providing facilities. Loans and transfers of equipment are arranged through the four DOD regional logistics support offices. Marines may be tasked to provide MOS-related maintenance support on law enforcement agency equipment. Engineer operations can include construction of roads or structures, repairs, or terrain denial operations.

Military vehicles and aircraft can be sued, with some legal constraints, to transport personnel, cargo, or equipment. If evidence, seized property, or contraband is transported, a law enforcement officer must be present at all times to maintain the chain of custody. Precautions must be taken to ensure that aircraft and personnel are not placed in situations where they are likely to be fired upon.

Humanitarian Assistance/Disaster Relief. Humanitarian assistance operations use DOD personnel, equipment, and supplies to promote human welfare, to reduce pain and suffering, to prevent loss of life or destruction of property from the aftermath of natural or man-made disasters. In some circumstances, humanitarian assistance may include medical, dental, and veterinary care to rural areas of a country; construction of rudimentary surface transportation systems; well drilling and construction of basic sanitation facilities; and rudimentary construction and repair of public facilities.

Disaster relief operations fall within the overall context of HA. They are conducted in emergency situations to prevent loss of life and property. Such operations may be in the form of immediate and automatic response by US military commanders or in response to domestic or

foreign governments or agencies. Military elements involved in international DR are often responsible for supporting the implementation of assistance programs developed by the Office of Foreign Disaster Assistance, DOS. The coordination of federal response to domestic disaster relief efforts are generally under the direction of FEMA, although immediate response is permitted to prevent loss of life and property.

Missions may include moving supplies to remote areas, extracting or evacuating victims, establishing emergency communications, and rendering emergency repairs to vital facilities.

Military Support to Civilian Authorities. Under the direction of the appropriate governmental authorities, US military forces may assist in domestic emergencies. Units may support disaster relief, humanitarian assistance, and other related missions. Logistics support would also be required by any US units conducted the support and/or law enforcement missions tasked.

Missions in support of disaster assistance, environmental assistance, law enforcement, and community assistance

Domestic support ranges from disaster assistance to more frequently conducted community assistance operations. All domestic support operations share the common characteristic of using Marine human and physical resources to enhance national security, thus contributing to the nation's overall well-being. These operations, which usually draw extensive media attention, must consider public affairs implications.

Environmental missions and operations are directed at the physical infrastructure of the nation. National and local efforts may be supported by Marine organizations, activities, and units.

Law enforcement support helps civil law enforcement authorities maintain law and order. Laws, directives, and regulations restrict the Marine Corps from assuming the civil law enforcement mission.

Community assistance operations help meet national, state, or local community objectives. Intended to fill needs not met, they should avoid duplication or competition with the civilian sector.

Civilian emergency management is almost universally organized on the “unmet needs” philosophy. Local jurisdictions, responsible for the security and welfare of their citizens, request assistance only when their resources are insufficient to meet requirements. Most states confirm the general outlines of the emergency management concept, as do their constituent county and local jurisdictions. Normally the state directs large-scale efforts, and commanders should establish liaison at that level. Disaster or emergency declarations are associated with legal and funding requirements.

Logistics assessment personnel should carefully identify requirements before Marine support assets are deployed.

The four primary sources of logistic support for operations in support of civilian authorities are contracting, negotiated support, military support, and support from other federal agencies.

Contracting is the purchasing, renting, or leasing supplies or services from nonfederal sources—is a highly effective and efficient way to provide rapid support in a crisis. Included are all classes of supply, labor, mortuary affairs, laundry, showers, food service, sanitation, billeting, transportation, maintenance and repair, access to communications networks, temporary real property leasing, and limited minor construction. Contracting can augment organic military unit support capabilities and provide new sources of critically required supplies, services, and real estate. It can also bridge gaps that may occur before the deployment of sufficient Marine Corps support. Contracting should always be the preferred method of support, beginning as soon as requirements are known.

Civil authorities may provide housing, food, and fuel to troops assisting in a counter drug or firefighting operation. Such support is negotiated on a case-by-case basis with the appropriate civil authorities.

Bases, stations, and installations will continue habitual support to units tasked to conduct domestic support operations. Installations may also have to support personnel with whom they have no established support relationships. These personnel may include civil authorities, elements from other services, and Marine units from other stations.

GSA can provide an extensive amount of support to DOD for such commonly used items as office furniture and supplies, machine and hand tools, photo supplies and other items. Other federal organizations may be able to provide assistance depending on the nature, scope, and duration of the operation.

Nation Assistance/Support to Counterinsurgency/Support to Insurgency. The military instrument of US national power predominately supports political, economic, and informational objectives. The US uses its military resources to provide support to a host nation's counterinsurgency operations in the context of foreign internal defense (FID) through logistic and training support.

The US supports selected insurgencies opposing oppressive regimes that work against US interests. SOF is frequently involved. General-purpose forces may be called on when the situation requires their particular specialties or the scope of operations is so vast that conventional forces are required.

Peace Operations. CSS units may be the main effort. Logistics will be a key aspect of any peace operation. The complexity of such operations in a joint and multinational environment where NGOs and PVOs are involved will produce unique demands on logistics operators and planners. Rapid force projection from platforms or forward bases will extend lines of communication. Forcible entry operations into expeditionary logistics type environments will require versatile logistics planning.

Logistics shaping is key to building a flexible support plan. It consists of actions taken by logisticians to optimize the means—force structure, resources, and strategic lift—of logistically supporting peace operations. These actions include identifying and preparing bases of operations; selecting and improving lines of communications; projecting and preparing forward logistics sites; and forecasting and building operational stocks forward and afloat. These actions focus on identifying the resources currently available in the theater for use by friendly forces and ensuring access to them. A detailed logistics estimate of supportability, and logistics shaping, allows the CSSE commander to advise the MAGTF commander of the most effective method of providing support that will not overwhelm the force or fail to provide adequate, timely support. It involves the full range of logistics functions.

Nations, forces, and agencies coordinate and work toward a common goal without reservations. Logistics may be conducted unilaterally. In other cases, a US element may be part of a logistics operation of the UN, a regional alliance, or an ad hoc coalition.

Early deployment of transportation planners, a port operations detachment, and movement control personnel are critical. In underdeveloped countries, the logistician must plan to conduct transportation and movement control in adjacent and/or supporting countries to ensure expeditious resupply to the force.

Participating nations share use of the same LOCs, requiring prioritization and deconfliction of the use of the LOCs.

A military or civilian port authority integrates seaport operations; discharges US, multinational, and civilian vessels; and manages real estate in the port and adjacent areas.

Planning for inland movement must ensure that adequate transportations assets, material and cargo handling equipment are provided.

Maintenance elements should be prepared to support civilian assets as well as those of other military forces.

In determining HSS requirements, planners must consider the impact of providing medical care to multinational forces or local populations. Peace operations result in more frequent and direct contact with the local population. Provision for the mix of care-provider skills, instrument sizes, drugs, and supplies to support pediatric, geriatric, and obstetric problems requires prior planning.

Finance elements should deploy early to support procurement efforts and to begin the accounting process for the operation.

Some operations may require the creation of joint or multinational contracting elements, staffed by personnel from all services and contingents operating in the theater.

Reconstitution. Reconstitution consists of the actions taken to return a unit to an acceptable level of combat power. Reorganization is the

shifting of internal resources within a degraded unit to increase its overall level of combat effectiveness. Regeneration involves the rebuilding of a MEF MSE through the replacement of small units (crew to company) to include leaders and equipment; large-scale replacement of personnel, equipment, and supplies; the reestablishment or replacement of essential command and control; and the conduct of mission essential training for the new unit.

The critical planning for reconstitution is based on “loss data” generated in the logistic estimate of supportability for the operation. Units that are expected to suffer heavy losses are identified and those whose follow-on missions require a specified level of readiness are candidates for reconstitution. The requirements for replacement personnel and equipment are then included in the CSS requirements for the operation.

A reconstitution site must be selected. The site should be located so as to be reasonably safe from enemy activity and beyond enemy artillery range. The site must be large enough to accommodate the unit as well as MEF/MSE assets involved in the reconstitution operation. The MAGTF includes regeneration in its requirements to theater logistic providers

The decision to reconstitute a unit must be made as early as possible to allow CSS assets to be collected and the unit to be removed from combat. This may also be the first time a unit can conduct deliberate decontamination.

Unit, regiments or smaller, requiring regeneration support should receive this support from a task-organized element (normally a battalion sized CSSE). The mission of this CSSE is to provide all CSS required by the unit being regenerated.

When conducting regeneration, CSS units are diverted from their primary mission. CSS planners must prioritize support, both for DS and GS missions, to include distribution of weapons systems since some units will receive little or no CSS during the regeneration period.

Show of Force. US forces, Naval or ground, deploy to a region of the world to defuse a situation that may be detrimental to US interests or national objectives. Deployments can take the form of combined training exercises, rehearsals, forward deployment of military forces in a region, or the introduction and build-up of military forces in a region.

Large Unit Movement. The MAGTF's initial concern is to sustain the movement primarily by providing adequate refueling and maintenance support. The MAGTF must also consider echelonment of assets to best support the follow-on operation, the extent the move will disrupt normal resupply activities, and the impact civilian vehicles and DPRES will have on the unit movement. Lateral movement considerations include: best utilization of transportation, adequacy of the transportation network, weather influences, security, organization to meet tactical requirements, rail, water, air, and tactical road movement.

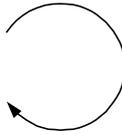
Appendix C

Tactical Task Graphics

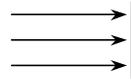
C-1. Terrain



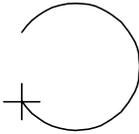
Seize



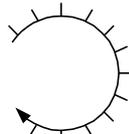
Secure



Clear

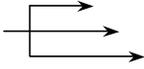


Occupy

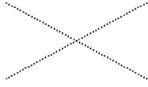


Retain

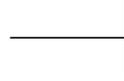
C-2. Enemy



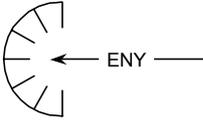
Disrupt



Destroy



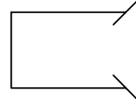
Block



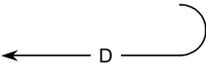
Contain



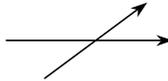
Fix



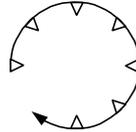
Canalize



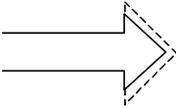
Delay



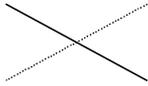
Interdict



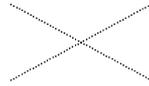
Isolate



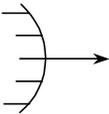
Feint



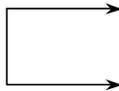
Neutralize



Destroy



Ambush



Bypass

C-3. Friendly Forces



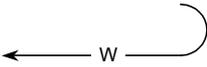
Screen



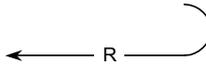
Guard



Cover



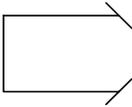
Withdraw



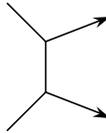
Retirement



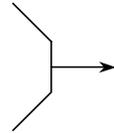
Follow and Support



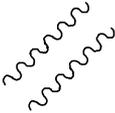
Breach



Support by Fire



Attack by Fire

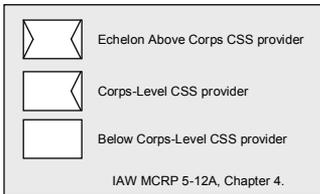


Infiltrate

This page intentionally left blank.

Appendix D

Sample CSS Graphic Symbolology



IAW MCWP 4-11, numeric designators are based on the following sequence:

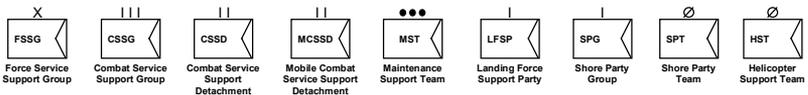
1 st FSSG	11-19 and 51-59
2 nd FSSG	21-29 and 61-69
3 rd FSSG	31-39 and 71-79
4 th FSSG	41-49 and 81-89.

Task-Organized, Multifunctional, Echelon Above Corps CSSE



IAW MCRP 4-12, the MLC is an employment option available to the Marine Corps component commander for executing operational level logistics and is the primary option to provide operational level support during a major theater of war.

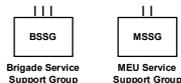
Task-Organized, Multifunctional, Corps-Level CSSEs



During the 5-9 March 2001 Quad FSSG Conference, a point paper was presented to the commanding generals recommending the deletion of CSSD as a unit designator and replacing it with the more specific unit designators of **CSSG** (commanded by a colonel), **CSSB** (commanded by a lieutenant colonel), and **CSSC** (commanded by a major or captain). This recommendation was forwarded to the CSS Operational Analysis Group for further action. These are the recommended unit graphics:

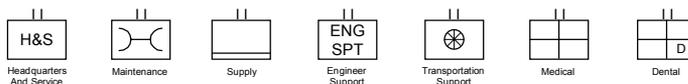


Other MAGTF CSSEs

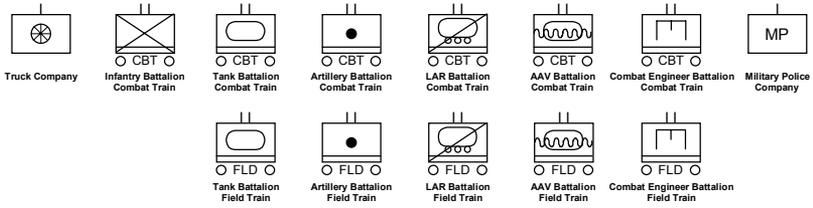


A BSSG or MSSG landing force support party, shore party team or group, or helicopter support team does not have the corps-level designator. They are below corps-level CSS providers. See above for basic CSS unit level designators.

FSSG Functional Battalions

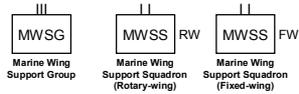


Division CSS Units



IAW MCRP 5-12A, Chapter 4, wheeled designators only go on **unit trains** (which are comprised of **combat trains** and **field trains**).

Wing CSS Units



IAW MSTP Pamphlet 5-0.3, an MWSS may have the unit location on the right side of the box or RW/FW.

CSS Area Symbology



Detainee Holding Area



Forward Arming and Refueling Point (FARP)



Refugee Holding Area



Enemy Prisoner of War Holding Area



**Support Areas: Force Combat Service (FCSSA)
Combat Service (CSSA)
Beach (BSA)
Landing Zone (LZSA)**

CSS Point Symbology



**Ambulance Exchange Point
(Point #3 serviced by RCT 2)**



Ammunition Supply Point (ASP)



Ammunition Transfer Point (ATP)



Casualty Collection Point (CCP)



Civilian Collection Point



Detainee Collection Point



Enemy Prisoner of War Collection Point



Cannibalization Point



Logistics Release Point (LRP)



Maintenance Collection Point (MCP)

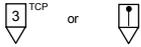


Refuel on the Move Point (ROM)



Repair and Replenishment Point (RRP)

CSS Point Symbology



or



Traffic Control Point (TCP)



Trailer Transfer Point (TTP)



Unit Maintenance Collection Point (UMCP)



Mortuary Affairs Collection Point (MACP)



Salvage Collection Point (SCP)



Medical Treatment Facility (MTF)



Supply Points

General (For multiple classes of supplies, show outside upper right.)



Class I



Class II



Class III



Class IV



Class V



Class VI



Class VII



Class VIII



Class IX



Class X



Water

CSS Route Symbology

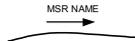
Main Supply Route



Alternate Supply Route



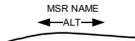
One-way Traffic



Moving Convoy



Alternating Traffic



Halted Convoy



Two-way Traffic



A Column of 12 Medium Tanks
at 0825 on the 25th



Supply Routes

Convoys

Appendix E

**Logistics Estimate of
Supportability Sample**

CLASSIFICATION

Copy no. ____ of ____ copies
TF RCT
TAA KKMC, Saudi Arabia
081500Z Apr XX
Order No xxx-xx

LOGISTICS ESTIMATE OF SUPPORTABILITY XX-02 ()

() REFERENCES. Map, Series 1501 AIR and C – SA, KUWAIT, IRAN/IRAQ, Sheets NG 39-1, NG 38-4, NG 38-2, NH 39-13, NH 38-16, NH 38-15, NH 38-14, NH 39-9, NH 38-12, NH 38-11, NH 38-10, NH 39-5, NH 38-8, NH 38-7, NH 38-6, NH39-1, NH 38-4, NH 39-3, NH 38-2. Editions 7-GSGS and 2, 1:250,000. 8th ID (M) OPLAN 001-000A (GOLDEN WARRIOR).

1. () MAGTF Mission. At H-hour on D-day, TF RCT will follow and support the I MEF attack along Axis VICTORY in order to defeat the 13 AD (IQ) vic Objective GLORY. On order, move to TAA HOOD and become the I MEF reserve.

() CSSE Mission. At H-hour on D-day, CSSG 99 conducts general support combat service support operations in support of TF RCT in order to facilitate the defeat of the 13 AD (IQ) vic Obj GLORY.

2. () Commander's Intent

() Purpose. To support the defeat of the 13 AD (IQ).

() Method. We will conduct a tactical motor march on Routes PICKETT and JACKSON and conduct movement to contact on Axis VICTORY. We will refuel at Maintenance Collection Point 1, Repair Replenishment Point 1 and at Attack Position LONGSTREET. We will be prepared to move out in support of the I MEF attack on Obj GLORY. We must be prepared to secure Obj GLORY and prepare a hasty defense against counter attacks. When relieved by Saudi/Kuwaiti forces, we will displace to TAA HOOD and become the I MEF reserve. We must quickly consolidate actions at Obj GLORY and move to TAA HOOD. We must

(Page Number)

CLASSIFICATION

CLASSIFICATION

rapidly transition between phases of the operation. Force protection is essential in all phases of this operation.

() End State. I want to be completely resupplied within 12 hours of consolidating on TAA HOOD, in order to be prepared for follow on operations.

3. () Specified, Implied, and Essential Tasks

	Specified	Implied	Essential
a. PHASE I.			
(1) Coordinate with the CSSG for fuel requirements at MCP1, RRP1, and AP LONGSTREET.		X	X
(2) Provide maintenance support to TF RCT from TAA KKMC to RRP1.		X	
(3) Provide medical support to TF RCT from TAA KKMC to RRP1.		X	
(4) Coordinate for medical evacuation to Fleet Hospital		X	X
(5) Evacuate broken equipment to Maintenance Collection Point (MCP 1).		X	
(6) Provide force protection for the CSSG	X		
b. PHASE II.			
(1) Refuel and refit TF RCT at AP LONGSTREET.	X		X
(2) Provide maintenance support to TF RCT from AP LONGSTREET to TAA HOOD.		X	
(3) Provide medical support to TF RCT from AP LONGSTREET to TAA HOOD.		X	X
(4) Coordinate for medical evacuation to Fleet Hospital		X	X
(5) Evacuate broken equipment to Repair Replenishment Point 1.		X	
(6) Provide force protection for the CSSG.	X		
c. PHASE III.			
(1) Resupply TF RCT in all classes of supply at TAA HOOD.	X		X
(2) Provide force protection for the CSSG.	X		
(3) Coordinate with Engineers for barrier materials.		X	X

4. () Facts and Assumptions

(Page Number)
CLASSIFICATION

CLASSIFICATION

	FACTS	ASSUMPTIONS
a. GENERAL.		
(1) CSS Installations FSCCA – Port of Al Mishab & Al Mishab Air Base CSSA – TAA Desert CSSA – TAA KKMC (w/ airfield) MCP 1 – vic GC xxxxxx RRP 1 – vic GC xxxxxx CSSA – AP LONGSTREET CSSA – TAA HOOD	X	
(2) Logistics C2 (Task Org & Mission Assignments) FSSG CP CSSG 99 GS ISO TF RCT CSSG 98 GS ISO TF xxx	X	
(3) MOPP Level is 0 throughout the operation.	X	
(4) There will be no DPRES in our AO.		X
(5) All EPWs will be handled by the Saudi Forces.	X	
(6) The duration of TF RCT's attack on Obj GLORY is expected to be 6 hours.		X
(7) There will be rest halts at all Movement Control Points (MCPs).	X	
b. SUPPLY/SUPPLY SUPPORT.		
(1) KKMC provides all rations prior to departure.	X	
(2) TF RCT will depart KKMC with 3 DOS UBL CL I.	X	
(3) TF RCT will depart KKMC with 1.7 DOS UBL for water.	X	
(4) Ration cycle is M-M-M through D+4, issue cycle is 2-2-2.	X	
(5) There will be no field hygiene/field feeding during the move to and attack on Obj GLORY, nor during the move to TAA HOOD.		X
(6) TF RCT has 15 DOS of CL II UBL.	X	
(7) TF RCT has 15 DOS of CL III(P) UBL.	X	
(8) TF RCT departs KKMC with 100% CL IV UBL.	X	
(9) TF RCT departs KKMC with 100% CL VIII UBL.	X	
(10) CSSGs have 3 DOS CL VIII on hand.	X	
(11) TF RCT will have three Medevac helicopters in DS.		X
(12) TF RCT will not be augmented by ground ambulances nor with a STP.		X
c. SUPPLY/ORDNANCE.		
(1) The TF RCT will deploy with 100% BA (combat load).	X	
(2) The CSRs for the following DODIC apply throughout the operation:	X	
A986 = 26	X	
C379 = 12	X	
D502 = 1	X	
(3) TF RCT will use 20% of CSSG LVSs for Ammo		X

(Page Number)
CLASSIFICATION

CLASSIFICATION

transport		
d. SUPPLY/FUEL.		
(1) Everything is single fuel – JP8.	X	
(2) TF RCT will depart KKMC with vehicle fuel tanks full.	X	
(3) Rate of march for Cross Country is 15 KM/Hour		X
(4) Rate of march for Secondary Roads is 25 KM/Hour		X
(5) FSSG GS CSSG will provide a ROM at MCP1.	X	
(6) TF RCT will receive 36,000 gal at GS CSSG ROM		X
e. HEALTH SERVICES/PERSONNEL.		
(1) No personal replacements until D+5.	X	
(2) TF RCT is at 100% strength in all MOSs.	X	
(3) TF RCT has 3226 personnel.	X	
f. GENERAL ENGINEERING.		
(1) Barrier plan at TAA HOOD complete w/in 8 hours		X
(2) 3 x 60' gaps in route to Obj GLORY	X	
(3) 1 x 60' gap in route to TAA HOOD		X
(4) Rtes PICKET and JACKSON remain OPEN routes		X
g. MAINTENANCE.		
(1) Units will deploy with 100% PEB and identified secrets.	X	
(2) MT Maint Co. will deploy with 100% of its CL IX ASL.	X	
(3) There will be no CL VII replacements until D+10	X	
(4) MSTs will travel with their respective Bn TFs.		X
h. TRANSPORTATION.		
(1) Routes JACKSON AND PICKETT are secondary roads	X	
(2) Axis VICTORY and Route LEE are cross country	X	
Distances are as follows: TAA KKMC to MCP1 is 110 KM MCP1 to RP1 is 125 KM RP1 to AP LONGSTREET is 78 KM AP LONGSTREET to Obj GLORY is 65 KM Obj GLORY to TAA HOOD is 125 KM	X	
(4) All transportation assets are at 90% FMC rate departing KKMC.	X	
Distances from maneuver units to BAS is 7.5 KM BAS to STP (w/ CSSB) is 10 KM STP to Surg. Co (w/ CSSG) is 25 KM Surg. Co to Fleet Hosp is 200KM		X
i. SERVICES.		
(1) MACP at FCSSA.	X	
(2) Mail handling point at FCSSA.	X	
(3) MADCP vic TAA HOOD.		X
(4) Conduct mail distribution vic TAA HOOD.		X
(5) Conduct limited Class VI sales vic TAA HOOD		X

CLASSIFICATION

5. () Logistics Situation

a. () Supply Support. (See Annex A). There is a shortfall in Class I on D+2 of 17.60 STons (2 DOS = 19,356 meals). This shortfall is in replenishment of the RCT's UBL. There is no shortfall in meeting the requirement for the day; based on a 2-2-2 issue cycle and an M-M-M ration cycle. There is a shortfall in Class IV on D+1 of 2.9 STons and on D+2 of 3.6 STons. There is a shortfall in Class VIII on D+1 of 1.6 STons and on D+2 of 1.9 STons. There is a significant shortfall in water of 3,728 gallons on D+1 and 32,440 gallons on D+2.

b. () Supply/Ordnance. (See Annex A). We will be zero-balance for 25 MM APDS-T for the M2A1s on D+2. We will be zero balance for the 155MM HE ADAM on D+1 during the attack, and short one round per weapon on D+2. Both of these shortfalls are after the ABLs for those items are depleted. Methods for overcoming these shortfalls would be to order up to the CSR for both on D-Day when our requirements are zero. This would overcome the shortfall in requirements and restock the ABL for the 25 MM APDS-T. However, it would only overcome the shortfall for 155MM HE ADAM. The ABL would remain zero-balance. Additionally, we could accept risk on the 25 MM APDS-T, being resupplied on D+3. For the shortfall in 155MM HE ADAM, we could go to the substitute DODIC of D501 where there is no CSR imposed. This would overcome the shortfall in the ABL stockage.

c. () Supply/Fuel. (See Annex A). Logistically the RCT can make it to TAA Hood on the fuel it departs KKMC with. However, the brigade would be rolling into Objective Glory at 43% fuel on-hand balance. This is a significant shortfall. Once the RCT falls below 50% fuel on-hand, it becomes a shortfall. This occurs at the end of D+1 at the end of the attack. If the attack goes longer than anticipated, the fuel shortfall could have a negative impact on combat operations for the RCT. This shortfall can be overcome by a

(Page Number)
CLASSIFICATION

CLASSIFICATION

resupply of fuel either before departing TAA Longstreet of at least 56,197 gallons but preferably 124,256 gallons.

d. () Health Services/Personnel. (See Annex B). We have a shortfall in patient holding of 8 patients on D+1. This will reduce the number of personnel on hand on D+2 to 3088, but we remain at 96% strength for personnel. We have a shortfall in processing remains of 18 on D+1. We have a shortfall in patient evacuation on D+1 of 54 patients from the STP to the CSSG, Surgical Co and of 18 from the Surg. Co to Level III (Fleet Hospital/CSH/TAH) care. The evacuation shortfall from the Surg. Co to Level III care will increase to 26 due to the shortfall of patient holding capacity at the Surg. Co.

e. () General Engineering. (See Annex C). There are four 60-foot dry gaps that have to be crossed between AT LONGSTREET and Obj GLORY. There are no tunnels to be by-passed. One of the AVLBs will have to be replaced with a MGB and pushed forward to quickly bridge the last gap.

f. () Maintenance. (See Annex D). The RCT Operational Readiness rate for key weapon systems will be 98% going into the attack and 85% after the attack. Due to the follow-on mission of division reserve, this OR rate will not have a significant impact on the RCT. The highest backlog will be on D+1 during the attack. The 21 tracked vehicles will overwhelm the maintenance company's ability to repair those items in 24 hours. To overcome this shortfall, we can either evacuate DS CSSG overflow to the GS CSSG Eng or GS Maint Companies or receive augmentation of approximately 22 eng mechanics with toolboxes and 6 A-Frames from the GS CSSG Maint Bn. The Class IX shortages of M900 series torque rods and the M109 final drives may affect our ability to repair those types of equipment and thus further reduce our OR rate at the end of D+1.

g. () Transportation. (See Annex E). The RCT has no HETs. We have a shortfall of 6 on D-Day, 39 on D+1, and 6 on D+2. We can overcome this shortfall by requesting 6 HETs from the GS CSSG Trans Spt Bn, GS Company to be attached for the duration of the

(Page Number)

CLASSIFICATION

CLASSIFICATION

operation. This would leave us still with a shortfall of 15 on D+1. FSSG augmentation for D+1 of 15 HETs for attachment to the maintenance company, and requesting additional FSSG backhaul of the 18 vehicles from the fwd CSSA may overcome the shortfall. There is no shortfall in transporting the required supplies to include UBL replenishments providing the battalion TF field trains will be used to carry their Battalion task force's share of their supplies.

h. () Services. (See Annex F). Mortuary Affairs detachment can process ten set of remains per day. All remains will be forwarded to theater M.A. collection points within 48 hours of processing. The Task Force anticipates 38 Killed In Action during the first day of offensive operations. M.A. will not be able to meet forecasted casualty rate for the first day of combat. The difference can be met by moving four refrigerator units to the MACP. Remains can be processed during lulls in combat.

6. () Conclusion. This operation is logistically supportable if we use the CSSG Transportation Support Battalion's LVSs for transporting extra supplies and receive the augmentation needed to overcome shortfalls in patient evacuation and holding, general supplies, ammunition, fuel resupply, and HETs. The patient holding shortfall can be overcome by either receiving augmentation from the CSSG Surgical Co or by evacuating the extra patients to the Surg. Co or Level III care. The patient evacuation shortfall can be overcome by using non-standard evacuation. The shortfalls in general supplies can be overcome using the battalion TF field trains to carry extra supplies. The shortfalls in ammunition due to CSRs can be overcome by ordering up to the CSR on days when the RSR is less than the CSR, and by using substitute DODICs. The battalion TF field trains LVSs can carry this extra ammunition. If we receive a fuel resupply at TAA Longstreet, we will have no shortfall. The HET augmentation, even if not received, will not be detrimental to our operation. The dry gaps crossing capability shortfall can be overcome by replacing one AVLB with a MGB to meet the bridging requirements. The M.A. remains processing difference can be met by moving four refrigerator units to the MACP.

(Page Number)
CLASSIFICATION

CLASSIFICATION

ANNEX A – SUPPLY/SUPPLY SUPPORT

1. () Capabilities, Requirements and Shortfalls in General and Medical Supplies. The capabilities for the following all classes of supplies for D-Day and D+1 will be limited to the UBL in each class of supply. On D+2, the capabilities reflect what the CSSG can receive, store, and issue.

	D-Day	D+1	D+2
	O/C	Off 1st Day	O/C
Class I:			
Capabilities (STons)	26.47 (UBL)	17.65 (UBL)	17.7 (DS)
Requirements (STons)	8.82	8.82	17.65 + 17.65 (UBL Repl)
Overage/ (Shortfalls) in STons	17.65	8.82	(17.60)
Class II:			
Capabilities (STons)	81 (UBL)	75.6 (UBL)	16.9 (DS)
Requirements (STons)	5.4	5.4	5.4 + 10.8 (UBL Repl)
Overage/ (Shortfalls) in STons	75.6	70.2	.7
Class III(P):			
Capabilities (STons)	12 (UBL)	11.2(UBL)	1.2 (DS)
Requirements (STons)	0.8	0.8	0.8 + 1.6 (UBL Repl)
Overage/ (Shortfalls) in STons	11.2	10.4	(1.2)
Class IV Barrier:			
Capabilities (STons)	4 (UBL)	4 (UBL)	9.3 (DS)
Barrier Requirements (STons)	0	6.9	6.6 + 4 (UBL Replenish)
Construction Requirements (STons):	0	0	5.9
Overage/ (Shortfalls) in STons	4	(2.9)	(3.6)
Class VI:			
Capabilities (STons)	0	0	0
Requirements (STons)	0	0	0
Overage/ (Shortfalls) in STons	0	0	0
Class VIII:			
Capabilities (STons)	3 (UA)	.7 (UA)	3.1
Requirements (STons)	2.3	2.3	2.0 + 3 (UA Replenish)
Overage/ (Shortfalls) in STons	.7	(1.6)	(1.9)

(Page Number)
CLASSIFICATION

CLASSIFICATION

2. () Capabilities, Requirements and Shortfalls in Water

	QTY	D-Day	D+1	D+2
Capabilities (Gal):		4 gal/man	4gal/man	8.9gal/man
FAWPSS	1	3000		
M149s	32	12800		
5 Gallon Cans (2/veh)	1256	6280		
TOTAL		22080	9176	(3728)
Requirements (GAL):		<u>12904</u>	<u>12904</u>	<u>28712</u>
Overage/(Shortfall):		9176	(3728)	(32440)

3. () Shortfalls

a. () There is a shortfall in Class I on D+2 of 17.60 STons (2 DOS = 19,356 meals). This shortfall is in replenishment of the RCT's UBL. To overcome this shortfall, we would need an additional two DOS of Class I with augmentation of a Class I supply section or use 12 detail personnel with a 6K forklift; or we could carry the extra Class I on battalion TF field train assets. There is no shortfall in meeting the requirement for the day; based on a 2-2-2 issue cycle and an M-M-M ration cycle.

b. () There is a shortfall in Class IV on D+1 of 2.9 STons and on D+2 of 3.6 STons. This can be overcome by having the battalion TF field trains depart KKMC with their share of the extra 6.5 STons of Class IV for the battalion TF (less than a full load one of their LVSs) or by the CSSG being augmented with two additional 5-ton cargo trucks for the extra 6.5 STons.

c. () There is a shortfall in Class VIII on D+1 of 1.6 STons and on D+2 of 1.9 STons. This can be overcome by departing KKMC with 3.5 additional STons of Class VIII, either in the STP or in the CSSG Surgical Co. The CSSG would need to be augmented with an additional 5-ton cargo truck.

d. () There is a significant shortfall in water of 3,728 gallons on D+1 and 32,440 gallons on D+2. This shortfall can be overcome by the CSSG departing KKMC with 23 pallets of bottled water on two

(Page Number)
CLASSIFICATION

CLASSIFICATION

M48/14s to meet the requirement on D+1, and getting resupplied with 32,440 gallons of water on D+2 (requiring 36 sixcons or 146 pallets of bottled water on 13 M48/14s).

ANNEX A – SUPPLY/ORDNANCE

1. () Capabilities, Requirements, and Shortfalls (in total STons).
 Capabilities are limited to the ability to transport ammunition during D-Day and D+1 (99 STons on 9 LVSS plus the 84 STons on the ATP PLSs), and based on the ability of the CSSG's capabilities to receive and transload/issue on D+2:

	D-DAY	D+1	D+2
CAPABILITIES:	183	183	572
REQUIREMENTS:	0	109	39
OVER/(SHORT):	183	74	533

2. () Capabilities, Requirements, and Shortfalls for CSR rounds (expressed in rounds/weapon/day)

a. () A986, 25mm APDS-T for the M2A1:

	D-DAY	D+1	D+2
CAPABILITIES:			
CSR	26	26	26
REQ (RSR):	0	29	29
SUB-TOTAL	26	(3)	(3)
ABL	6	6	3
OVER/(SHORT):	32	3	0

b. () C379, 120mm HE/MO for 120mm Mortar SP

	D-DAY	D+1	D+2
CAPABILITIES:			
CSR	12	12	12
REQ (RSR):	0	6	6
SUB-TOTAL	12	6	6
ABL	12	12	12
OVER/(SHORT):	24	18	18

CLASSIFICATION

c. () D502, 155mm HE ADAM for 155mm Howitzer

	D-DAY	D+1	D+2
CAPABILITIES:			
CSR	1	1	1
REQ (RSR):	0	2	2
SUB-TOTAL:	1	(1)	(1)
ABL	1	1	0
OVER/(SHORT):	2	0	(1)

3. () Shortfalls

a. () We have the ability to carry the required STons of ammunition for the operation if 20% of the battalion field trains LVSS (3 LVSS per battalion TF) are dedicated to transporting ammunition.

b. () TF RCT will be zero-balance for 25mm APDS-T for the M2A1s on D+2. TF RCT will be zero balance for the 155mm HE ADAM on D+1 during the attack, and short one round per weapon on D+2. Both of these shortfalls are after the ABLs for those items are depleted. Methods for overcoming these shortfalls would be to order up to the CSR for both on D-Day when our requirements are zero. This would overcome the shortfall in requirements and restock the ABL for the 25mm APDS-T. However, it would only overcome the shortfall for 155mm HE ADAM. The ABL would remain zero-balance. Additionally, we could accept risk on the 25mm APDS-T, being resupplied on D+3. For the shortfall in 155mm HE ADAM, we could go to the substitute DODIC of D501 where there is no CSR imposed. This would overcome the shortfall in the ABL stockage.

ANNEX A – SUPPLY/FUEL

1. () Capabilities, Requirements, and Shortfalls (in gallons)

	Qty	D-Day KKMC to MCP1	D+1 MCP1 to RP1	D+1 RP1 to Longst	D+1 Longst to Glory	D+2 Glory to Hood	D+2 Hood
Capabilities:							
Veh. Fuel Tanks	OPLOGPLN	151,598					
5K Tankers (11)	11	41,800					

(Page Number)
CLASSIFICATION

CLASSIFICATION

LVSS (44)	44	105,600					
TPUs (8)		4,800					
5 Gal Cans	4/veh = 2512	12,560					
Refuel	Order/Assmp	36,000					
TOTAL		352,358	306,744	235,517	192,102	135,905	28,503
Requirements		45,614	71,227	43,415	56,197	107,402	14,787
Over/(Short)		306,744	235,517	192,102	135,905	28,503	14,786
Percent Fuel O/H		87%	74%	61%	43%	9%	5%

2. () Shortfalls. Logistically the RCT can make it to TAA Hood on the fuel it departs KKMC with. However, the RCT would be rolling into Objective Glory at 43% fuel on-hand balance. This is a significant shortfall. Once the RCT falls below 50% fuel on-hand, it becomes a shortfall. This occurs at the end of D+1 at the end of the attack. If the attack goes longer than anticipated, the fuel shortfall could have a negative impact on combat operations. This shortfall can be overcome by a resupply of fuel before departing TAA Longstreet of at least 56,197 gallons but preferably 124,256 gallons.

ANNEX B – HEALTH SERVICES/PERSONNEL

1. () Capabilities

a. () Task-Organization

TF RCT	Assigned Strength
HHC, TF RCT	30
3/1 Mech/Inf Battalion	604
3/2 Mech/Inf Battalion	604
3/3 Mech/Inf Battalion	777
2/10 Artillery Battalion	724
HMLA 267	51
CSSG (GS)	<u>436</u>
TOTAL	3226

b. () The Medical Company has a holding capacity of 40 patients.

2. () Requirements

(Page Number)
CLASSIFICATION

CLASSIFICATION

a. () Personnel Strengths, Medical Treatment, MA Processing

	D-Day O/C	D+1 Off 1st Day	D+2 O/C
Profile	1.00%	6.60%	1.00%
Population	3,226	3,209	3,096
Losses	33	212	31
Personnel Strength	100%	99%	96%
Unit Area	24	153	23
RTD from Unit Area	2	15	2
Evac to BAS	22	138	21
RTD from BAS	6	36	5
Evac to STP/Surgical Co	16	102	16
RTD from STP/Surgical Co	8	48	8
Evac to Fleet Hospital	8	54	8
Killed in Action	6	38	6
Missing in Action	3	21	3
Total Loss to Unit	17	113	17

b. () Medical Evacuation, D+1 — Day of the Attack

Casualty Evacuation Estimator	4		Select the day that you wish to analyze.
Enter the duration of time that casualties occur on the battlefield.	6	Solution	
Enter the estimated distance, in KM, from unit area to BAS.	7.5	138	Number of casualties that require evacuation from the unit area to BAS
Enter the rate of march in KM/Hour.	15	6.0	Number of trips available (rate of march/distance * duration)
Enter the total number of ambulances in the medical platoon.	24	576	Total number of casualties that can be transported during the duration of the fight. The assumption is that there will be an average of four casualties per ambulance.
		None	Amount of casualties that require non-standard evac from unit area to BAS
Enter the estimated distance, in KM, from BAS to MCSSD STP.	10	102	Number of casualties that require evacuation from the BAS to the MCSSD STP.
Enter the rate of march in KM/Hour.	20	6.0	Number of trips available (rate of march/distance * duration)
Enter the total number of ambulances that will travel between the BAS and MCSSD STP.	6	144	Total number of casualties that can be transported during the duration of the fight. The assumption is that there will be an average of four casualties per ambulance.
		None	Amount of casualties that require non-standard evac from the BAS to the MCSSD STP.

(Page Number)

CLASSIFICATION

CLASSIFICATION

Enter the estimated distance, in KM, from MCSSD STP to CSSG Surgical Co.	25	102	Number of casualties that require evacuation from the MCSSD STP to the CSSG Surgical Co.
Enter the rate of march in KM/Hour.	25	3.0	Number of trips available (rate of march/distance * duration)
Enter the total number of Ambulances that will travel between the MCSSD STP and CSSG Surgical Co.	4	48	Total number of casualties that can be transported during the duration of the fight. The assumption is that there will be an average of four casualties per ambulance.
		54	Amount of casualties that require non-standard evac from the MCSSD STP to the CSSG Surgical Co.
Enter the estimated distance, in KM, from a Surgical Co to Level III care.	200	54	Number of casualties that require evacuation from the Surgical Co to a Level III medical care facility.
Enter the rate of march in KM/Hour.	200	3.0	Number of trips available (rate of march/distance * duration)
Enter the total number of Air Ambulances that will travel between the Surgical Co and the Level III medical facility.	3	36	Total number of casualties that can be transported during the duration of the fight. The assumption is that there will be an average of four casualties per ambulance.
		18	Amount of casualties that require non-standard evac from the Surgical Co to Level III care.

3. () Shortfalls

a. () We have a shortfall in patient holding of 8 patients on D+1. The ways to possibly overcome this shortfall is to evacuate eight more patients to either the CSSG Surgical Company or Level III care facility. This will reduce the number of personnel on hand on D+2 to 3088, but we remain at 96% strength for personnel.

b. () We have a shortfall in processing remains of 18 on D+1. We can ask for another MA team, use approximately 10 detail personnel to assist the one MA team we have, or contract for an additional refrigeration van as ways to overcome this shortfall.

c. () We have a shortfall in patient evacuation on D+1 of 54 patients from the STP to the CSSG Surgical Co and of 18 from the CSSG to Level III care. The evacuation shortfall from the CSSG to Level III care will be increased to 26 due to the shortfall of patient holding

(Page Number)

CLASSIFICATION

CLASSIFICATION

capacity in the CSSG. The extra eight patients could be evacuated to the MSMC. The ways to overcome the shortfall from the SPT to the CSSG is to get augmentation from a ground evacuation company of five HMMWV ambulances or to use non-standard evacuation consisting of nine 5-ton cargo trucks, 27 M998s, or 2 LVS stake beds. The way to overcome the shortfall in evacuation from the CSSG to Level III care is to request two additional on-station medevac aircraft or to use other assault support aircraft for non-standard air evacuation.

ANNEX C – GENERAL ENGINEERING

1. () Capabilities

a. () Ground fuel storage systems are currently located at MCP 1, RRP, 1 and proposed for TAA HOOD. Refer to Annex A Supply/Fuel for capabilities, requirements, and shortfalls chart.

b. () Water production and storage facilities are currently located at MCP 1, RRP 1, and proposed for TAA HOOD. Refer to Annex A Supply/Supply Support/Water for capabilities, requirements, and shortfalls chart.

c. () Three AVLB and two MGBs are located with attached combat engineer company reinforced.

d. () All MSRs are open and have no emplaced restrictions.

2. () Requirements. There are four 60-foot dry gaps that have to be crossed between AT LONGSTREET and Obj GLORY. There are no tunnels to be by-passed.

3. () Shortfalls. One of the AVLBs will have to be replaced with a MGB and pushed forward to quickly bridge the last gap.

(Page Number)
CLASSIFICATION

CLASSIFICATION

ANNEX D – MAINTENANCE

1. () Priority of Maintenance by Phase

- a. () Phase I: M970s, M931, M48/14 (fuelers), M923/5 (ammo haulers), M198s, M1s, and all recovery variant vehicles.
- b. () Phase II: M1s, M198s, M970s, M48/14s (fuelers).
- c. () Phase III: Engineer equipment, MHE, M970, M931, M1s, and M198s.

2. () Repair Timelines By Phase

- a. () Phase I: On-site is 1 hour, UMCP/MST is 2 hours, and CSSA is 4 hours. Equipment that cannot be repaired in this time will be towed forward to TAA Longstreet.
- b. () Phase II: On-site is 2-4 hours, UMCP/MST is 6 hours, and CSSA is 24 hours. Equipment that cannot be repaired in this time will be used for controlled substitution for other vehicles, and then evacuated to EAC.
- c. () Phase III: On-site is 24 hours, UMCP/MST is 48 hours, and CSSA is 72 hours. Equipment that cannot be repaired in this time will be used for controlled substitution for other vehicles, and then evacuated to the GS CSSG on a case-by case basis (unit logistics officer decision).

3. () Cannibalization will not be authorized during this operation.

4. () Capabilities of Key Weapons Systems

	D-Day	D+1	D+2
	O/C	Off 1st Day	O/C
M1			
End	114	96	102
FMC%	98%	83%	88%
LAV25/M/AT			
End	57	47	50

(Page Number)

CLASSIFICATION

CLASSIFICATION

FMC%	98%	81%	86%
LVTP7			
End	125	104	110
FMC%	98%	81%	86%
M198			
End	47	45	43
FMC%	98%	94%	90%
Average FMC rate for above vehicles	98%	85%	88%

5. () Backlog at the UMCPs and BSA

M1:		D-DAY	D+1	D+2
MST/UMCP		2	5	2
BSA/DSA		1	7	1
LAV25/M/AT:				
MST/UMCP	1	2		1
BSA/DSA	1	4		1
LVTP7:				
MST/UMCP	2	5		2
BSA/DSA	1	8		1
M198:				
MST/UMCP	2	1		1
BSA/DSA	1	1		1
M88:				
MST/UMCP	0	1		0
BSA/DSA	1	1		1
TOTAL BACLOG:				
MST/UMCP	7	14		6
BSA/DSA	5	21		5

6. () Critical Class IX Shortages

- a. () Full-up power pack, M1A2.
- b. () Torque Rods, M900 series.
- c. () Equilibrator, M198.

7. () Shortfalls

- a. () The brigade OR rate for key weapon systems will be 98% going into the attack and 85% after the attack. Due to the follow-on

(Page Number)
CLASSIFICATION

CLASSIFICATION

mission of division reserve, this is OR rate will not be a significant impact on the RCT.

b. () The highest backlog will be on D+1 during the attack. The 21 tracked vehicles will overwhelm the RCT maintenance capability to repair those items in 24 hours. To overcome this shortfall, we can either evacuate to the CSSG engineer/general support maintenance companies or receive augmentation of approximately 22 mechanics with toolboxes and 6 A-Frames from the CSSG.

c. () The FUPP will have a limited impact on the OR rate. However, the M900 series torque rods and the M198 equilibrators may affect our ability to repair those types of equipment and thus further reduce our OR rate at the end of D+1.

ANNEX E – TRANSPORTATION

1. () Capabilities, Requirements, and Shortfalls

a. () Our transportation capability is dependent completely on the transport capacity of the battalion TF field trains LVSS (374 STons). This is less the 9 LVSS dedicated to Class V.

b. () Due to moving on D-Day through D+2, the transportation capability is based on a one-time lift for all three days' requirements.

c. () Capabilities versus Requirements Comparison

	D-Day	D+1	D+2
	O/C	Off 1st Day	O/C
CAPABILITIES:	374		
Total Short Tons of CL I and water	69	51	103 + 17.65 (UBL Repl) + 19.11 water shortfall
Class II (Short Tons)	5.4	5.4	5.4+10.8 (UBL Repl)
Class IIIp (Short Tons)	0.8	0.8	0.8 + 1.6 (UBL Repl)
Class IV Barrier (Short Tons)	0	6.9	6.6 + 4 (UBL Repl)
Class IV Construction (Short Tons)	0	0	5.9

(Page Number)

CLASSIFICATION

CLASSIFICATION

Class VI (Short Tons)	0	0	0
Class VIII (Short Tons)	2.3	2.3	2.0 + 3 (UA Repl)
Mail (Short Tons)	2.2	2.1	1.9
Total Short Tons general supplies	10.7	17.5	42
Grand Total of STs	79.7	68.5	181.76
CUM (D-DAY-D+2) REQ TO BE TRANSPORTED	330		
OVER/(SHORT)	44		
HET Capabilities:	0	0	0
HET Evac Requirements:			
(Tracked vehicles to CSSA only)	5	21	5
(Tracked vehicles to FCSSA only)	1	18	1
OVER/(SHORT)	(6)	(39)	(6)

2. () Shortfalls

a. () The RCT has no HETs. We have a shortfall of 6 on D-Day, 39 on D+1, and 6 on D+2. We can overcome this shortfall by requesting 6 HETs from the CSSG to be attached for the duration of the operation. This would leave us still with a shortfall of 15 on D+1. Requesting GS CSSG/FCSSA augmentation for D+1 of 15 HETs for attachment to the RCT maintenance platoon, and requesting additional GS CSSG backhaul of the 18 vehicles from the FCSSA may overcome this.

b. () There is no shortfall in transporting the required supplies to include UBL replenishments providing the battalion TF field trains will be used to carry their task force's share of their supplies.

ANNEX F – SERVICES

1. () Capabilities. Mail, legal, and fiscal services are available at the FCSSA. MEF contracting team located vic of KKMC. MWR services representative has six mobile hamburger stands available to move forward when operational conditions permit. The mortuary affairs detachment can process ten sets of remains per day. All remains will be

(Page Number)
CLASSIFICATION

CLASSIFICATION

forwarded to theater M.A. collection points within 48 hours of processing.

2. () Requirements. The task force anticipates 38 killed in action during the first day of offensive operations. Once in consolidation vic TAA HOOD and Obj GLORY, shower facilities for approximately 1200 Marines.

3. () Shortfalls. MA will not be able to meet forecasted casualty rate for the first day of combat.

(Page Number)

CLASSIFICATION

This page intentionally left blank.

Appendix F

Sample CSSE Planning Information and Concept of Operations

Sample Mission and Concept of Operations with Corresponding CSSE Concept of Operations; Annex A and Operations Overlay Included for Clarity of CSS Mission

Mission: O/O, I MEF attacks in zone to **seize** Obj FAR and **defeats** the 55th (Badlands) Tank Division (TD) in order to enable *the defeat of the 7th (Badlands) Tank Army*.

3a. Concept of Operations

This is a two-phased operation. Phase I: O/O, I MEF units depart TAAs and move along assigned routes to attack positions, then attack in zone and seize assigned objectives. Deep operations consist of 3rd MAW, JFACC air, and 14th Marines (Force Artillery) attacking to destroy the 55th TD division artillery group in EA HEART and delaying the reserve brigade as I MEF closes to fight the enemy main body. TF THRUST, the MEF's main effort, moves along MSR BROWN. After crossing PL DOOR, TF THRUST attacks in zone to seize Obj PHEASANT, defeating the second-echelon brigades and destroying the remaining artillery. 1st MARDIV (-), as a supporting effort, moves along MSR GREEN, conducts an attack in zone to seize Obj RAVEN while fixing the lead enemy brigades north of PL RUG. 3rd MAW, as a supporting effort, provides CAS to TF THRUST's close fight and provides sorties to TF THRUST's deep fight. 3rd MAW is responsible for MEF flank security and the interdiction of enemy lead brigades. TF SHEPHERD, as a supporting effort, moves along MSR BROWN, follows and supports TF THRUST. TF FOSS initially operates out of EAF and is MEF reserve with priority of commitment to TF THRUST's zone. 3rd LAR, 1st MARDIV provides one company as the MEF TCF throughout the operation. Phase I ends when MEF units have successfully defeated 55th TD second-echelon brigades.

Phase II: Deep operations consist of 3rd MAW, JFACC air, and 14th Marines conducting an attack in EA LIVER to delay commitment of 55th TD reserve east of PL KNOB for 6 hours. 1st MARDIV conducts a passage of lines with TF THRUST, becomes the MEF MAIN EFFORT, and attacks along Axis BRIDGE to seize Obj FAR and defeat the 55th TD reserve brigade. TF THRUST, as a supporting effort, follows and supports 1st MARDIV (-). TF SHEPHERD, as a supporting effort, establishes a screen along PL CHAIR. 3rd MAW, as a supporting effort, provides CAS to 1st MARDIV's close fight and provides sorties to 1st MARDIV (-) deep fight and interdicts remaining enemy lead elements. TF FOSS operates out of FARP CHEVY and remains the MEF reserve with priority of commitment to the 1st MARDIV zone and is prepared to conduct exploitation and pursuit operations. Phase II ends when the 55th TD reserve is defeated, 1st MARDIV seizes Obj FAR, and TF SHEPHERD establishes a screen of the MEF's front along PL CHAIR (xx 123456 to xx 123456). Reconstitute the force.

CSSE Concept of Operations—Sample for a MEF-Level Phased Operation

Overview to all Phases: The 1st FSSG provides GS to the MAGTF, GS and DS to non-MAGTF units, and Level II health services support to I MEF units and attachments from combat service support areas (CSSA) AGGIE, SOONER, WILDCAT, CORNHUSKER (TBE), and JAYHAWK (TBE). CSSA AGGIE (vic XX 123456) is the FCSSA and 1st FSSG CP. Combat service support group (CSSG) 1 provides GS to combat service support detachments (CSSD) 11 and 12, and operates out of CSSA SOONER (vic XX 123456). CSSD 11 provides GS to MEF artillery units and to mobile combat service support detachments (MCSSD) 51, 52, and 53. MCSSDs 51, 52, and 53 follow and support 1st MARDIV (-) as directed to execute their DS mission throughout the MEF AO. CSSD 12 provides GS to 3rd MAW and DS to TF FOSS and TF SHEPHERD from CSSA WILDCAT vic EAF (XX 123456). Limited emergency resupply is available for Class III and V via aerial delivery and helicopter external lift. The Marine Corps Logistics Command (MLC) operates out of CSSA AGGIE and provides EAC-level support to I MEF forces, to include executing the MARFOR personnel replacement plan, movement control plan, and RSOI plan through the APOD and SPOD vic of Houston (XX 123456). 33d Army (JFLCC) initial priority

of support is to 2d (US) Corps, 21st (US) Corps, and I MEF. NBCD suits, selected Class IX major end items and Class VII (weapons systems) are command regulated. CSR is in effect for MLRS (DODIC xxxx), DPICM (DODIC xxxx) and PGMs (DODIC xxxx). MEF Graves Registration collection point located CSSA SOONER. Hasty burials are not authorized. MEF EPW holding site established SE of CSSA SOONER vic Austin (XX 123456). Level III medical care provided by Navy Fleet Hospital 5 established vic CSSA AGGIE. MEF medical evacuation policy is 48 hours. Theater medical evacuation policy is 7 days. JFLCC maintains control of MSRs RED and BLUE throughout the operation. MLC maintains control of MSRs GOLD and SILVER throughout the operation. MSRs GREEN and BROWN remain MEF controlled routes throughout the operation. MSRs PINE and OAK are MEF's designated contamination routes. Cannibalization is authorized at DS CSSD level and above only. Critical CSS risk is possible overextension due to unanticipated success.

Support before Phase I: Begins while units are in TAAs and ends when I MEF initiates movement forward to the line of departure. Logistics focus is initially on improving unit combat power and establishing GS and DS CSSE stockage objectives, then supporting MEF movement to PL DOOR (line of departure). I MEF initial priority of support is to MAG 11, 14th Marines (Force Artillery), TF THRUST (1st Tanks rein), 1st MARDIV, TF SHEPHERD (1st LAR (Rein)), and TF FOSS (HMLA-276 (Rein)). Priority of replacements is to TF THRUST, 1st MARDIV, MAG 11, 14th Marines, TF SHEPHERD and TF FOSS. Priority for supply build-up is Class III (B). CSSD 11 provides DS to 1st MARDIV forces minus MEF artillery units, GS to 14th and 11th Marines. Surgical companies are located in CSSA SOONER vic CSSD 11. Services support is provided by MLC throughout the MEF AO on an as required basis. Focus of health services support is establishing forward treatment points and maximizing RTDs. 1st FSSG STPs deploy with MCSSDs to division's AO and establish operations. BPT accept patients before I MEF units cross PL DOOR. Priority of ground maintenance and evacuation is to tanks, AAVs, LAVs, MLRS, howitzers, fuel configured LVSS/tankers, other LVSSs and forklifts. Priority of aircraft maintenance is to F/A-18Ds, F/A-18s, AV-8Bs, AH-1s, CH-53Es, CH-46s. Priority of forward movement is to 14th Marines (Force Artillery), TF THRUST, 1st MARDIV, TF SHEPHERD, and Class V and III (B) distribution. Priority of rearward movement is to casualty evacuation, DPRES, and

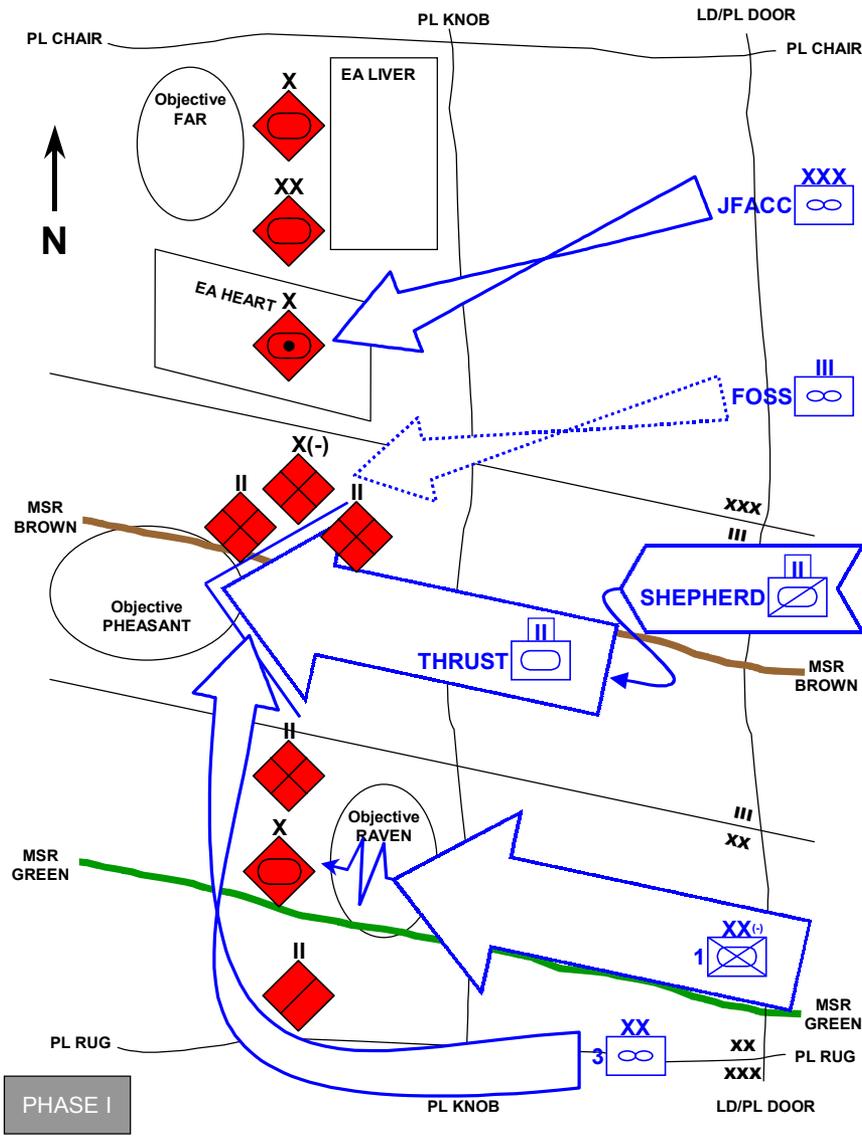
maintenance evacuation. 1st FSSG establishes RRP west of PL BEAM on MSRs GOLD, SILVER, GREEN, and BROWN.

Support during Phase I: Begins when I MEF initiates movement forward from TAAs and ends when TF THRUST secures Obj PHEASANT and 55th TD second echelon brigades are defeated. Focus of logistics effort is initially support of MEF movement forward to PL DOOR, then support of the deep battles in EA HEART and LIVER, then support of division units in contact. Priority of support is to TF THRUST, 1 MARDIV, MAG 11, 14th Marines (Force Artillery), TF SHEPHERD, and TF FOSS. Priority of support will shift to TF SHEPHERD if committed in TF THRUST zone. Services support (except graves registration) is suspended during combat operations. Individual replacement operations are suspended until Phase II is completed. Air MEDEVAC authorized no further east than PL WALL. HNS will not be used north of PL DOOR. All DPRE flow is to be passed to the DPRE site in CSSA SOONER. Priority of movement forward remains the same initially during MEF movement to the line of departure, then shifts to TF THRUST, 1st MARDIV, 14th Marines (Force Artillery), and Class V and III (B) when lead MEF units cross PL DOOR. Priority of rearward movement shifts to casualty evacuation, maintenance evacuation, DPRES, and EPWs when MEF units cross PL DOOR. Maintenance priorities remain unchanged. Critical CSS risk is threat to soft-skinned, wheeled support vehicles posed by unimproved routes and bypassed enemy elements in I MEF AO.

Support during Phase II: Begins when TF THRUST has secured Obj PHEASANT and defeated the 55th TD second echelon and ends when 1st MARDIV secures Obj FAR, TF SHEPHERD is screening along PL CHAIR, and TF FOSS is positioned at FARP CHEVY (XX 123456) prepared for exploitation and pursuit operations. Primary logistics effort is support of units in contact. Priority of support is to 1st MARDIV, TF SHEPHERD, TF FOSS, MAG 11, 14th Marines (Force Artillery), and TF THRUST. Priority of support will shift to TF THRUST if committed in 1st MARDIV's zone. CSSD 11 relocates to CSSA JAYHAWK (XX 123456) during Phase II and will deploy MCSSDs 51, 52, and 53 into 1st MARDIV's and TF SHEPHERD zone. Maintenance priority for ground equipment is to AAVs, LAVs, howitzers, tanks, and fuel configured LVS/tankers. Priority of aircraft maintenance is to AH-1s, AV-8Bs, CH-53Es, CH-46s, F/A-18Ds, and F/A-18s. Priority of movement forward is

to 1st MARDIV, TF SHEPHERD, Class III (B) and V. Rearward priority of movement is to casualty evacuation, maintenance evacuation, EPWs, and DPREs. 1st MARDIV has priority of movement on MSRs GOLD and SILVER. TF SHEPHERD has priority of movement on MSRs GREEN and BROWN. Services support remains suspended for committed units until 1st MARDIV secures Obj FAR. Air MEDEVAC authorized no further east than PL ROOF. Critical CSS risk is enemy threat to MCSSDs north of Obj PHEASANT.

Support after Phase II: Period begins when 1ST MARDIV has secured Obj FAR and TF SHEPHERD has established a screen along PL CHAIR, TF FOSS is positioned at FARP CHEVY, and ends when reconstitution efforts are completed and I MEF is prepared for follow-on missions. Logistics focus is reconstituting I MEF. MLC establish a reconstitution site to assist I MEF forces reconstitution efforts vic Obj FAR. Priority of support is to TF THRUST, 1st MARDIV, TF SHEPHERD, and TF FOSS. 1st MARDIV reconstitutes to a minimum combat level of 85%; TF THRUST, 80 %; TF SHEPHERD, 80%; 14th Marines (Force Artillery), 75%; TF FOSS, 85%. All other MEF support locations remain unchanged. All units conduct reconstitution efforts vic their final objectives. Ground maintenance priorities are tanks, AAVs, LAVs, MLRS, howitzers, fuel and ordnance LVSS. Priority of aircraft maintenance is unchanged. MEF unit replacement plan will be executed as required. Movement priorities forward are to replacement personnel/units, Class IX, VII (weapons systems), I, III, V, and IV. Movement priorities rearward remain unchanged. Services support resumes as required and as available. Critical CSS risk is inadequate time to reconstitute units before commitment to sequel mission or coordinated enemy counter-attack/counter-offensive.



Initial Annex A

I MEF (Rein)

14th Marines

TF MLRS (1 MLRS Bn, CSS slice; maint det, ammo handlers, trans det, fuel det)

GCE

1st MARDIV (-)

1st Marines (-)

2nd Bn, 1st Marines

C Co, 3rd AAV Bn

3rd Bn, 1st Marines

C Co, 2nd AAV Bn

5th Marines (-)

2nd Bn, 5th Marines (-)

3rd Bn, 5th Marines

7th Marines

1st Bn, 7th Marines

A Co, 3rd AAV Bn

2nd Bn, 7th Marines

B Co, 3rd AAV Bn

3rd Bn, 7th Marines

D Co, 3rd AAV Bn

11th Marines (-)

1st Bn, 11th Marines

2nd Bn, 11th Marines (-)

B Btry

C Btry

3rd Bn, 11th Marines

1st AAV Bn (-) (Force Troops A)

1st CEB (-)

TF THRUST

1st Tank Bn

1st Bn, 5th Marines

A Co, 2nd AAV Bn

1st Bn, 1st Marines

B Co, 2nd AAV Bn
2nd AAV Bn (-) (Force Troops B)

TF SHEPHERD

1st LAR Bn
3rd LAR Bn (-)
A Co.
B Co.

TCF

C Co, 3rd LAR Bn

ACE

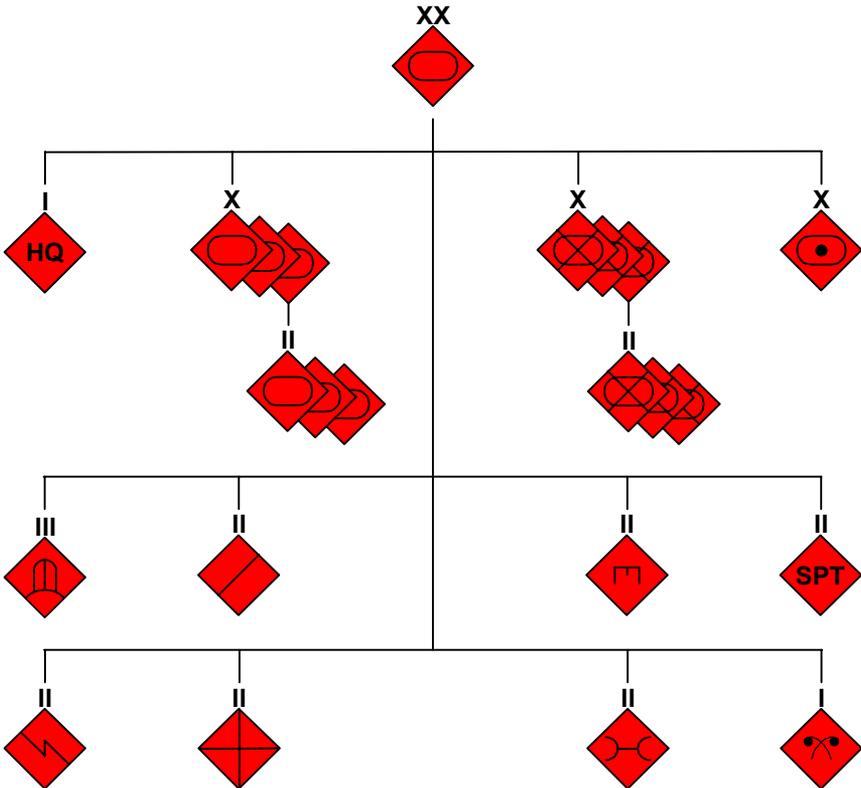
3rd MAW

TF FOSS

HMLA-267 (-)
HMLA-367 (-)
HMM-165 (-)
HMH-465 (-)
A Co, 2 Bn, 5th Marines
A Btry, 2 Bn, 11th Marines

CSSE

1st FSSG
CSSG 1
CSSD 11
MCSSD 51
MCSSD 52
MCSSD 53
CSSD 12



	TOTAL	HQ Co	Tank Rgt (3)	Mech Rgt	ARTY & AD	Recon Bn	ENG Bn	SIG Bn	CHEM Bn	SVC Co	MAINT Bn	MED Bn	TRANS Bn
OFFICERS	943	93	41	177	172	35	38	27	18	5	21	25	25
ENLISTED	8486	223	975	1938	1730	265	352	263	142	95	212	175	350
TOTAL	9429	316	1016	2115	1902	300	390	290	160	100	233	200	375
Pistols	943	1035	41	177	172	35	38	27	18	5	21	25	25
Rifles, AK-74	8486	223	975	1938	1730	265	352	263	142	95	212	175	350
Tank, T-55/62/72	285		95	40									
Tank, PT-26	19		3	3		7							
122mm How 2S1	60			6	54								
120mm Mortar	18		6										
122mm, BM-21	6				6								
140mm, BM-14/16	12				12								
85mm/100mm AT Gun	110		8	81		5							
ATGM, AT-2/3	13			13									
ZSU-23-4	4				4								
SA-7	120	3	21	36									
SA-9	16		4	4									
57mm, S-60	30			6	24								
LMG, RPK-74	206		3	171	18	3							5
RCV	185	20	15	117				3					
BMP/BRDM/BTR													
Motorcycle	81	5	7	9		33		13					
Truck	205	4	18	24	28		10	8		51	3	3	20
Van	54	3	6	6	2		1	5		1	12	1	5
Truck, POL	49		8	8	2					15			
Bridge, MTU-55	3							3					
Bridge, Truck-Launched	4							4					
Tall Mike	1					1							
Small Fred	1				1								

55th Badland Tank Division

Appendix G

MCPP Outline Guide for Logistics Planning

Warning order from higher headquarters (verbal/written)

Commander's orientation:

- *Commander's battlespace area evaluation.*
- *Commander's initial guidance.*

Mission Analysis

- Identify the higher headquarters commander's intent.
- Identify the purpose of the operation.
- Identify specified, implied, and essential tasks.
- Prepare and refine intelligence and IPB products to support logistics operations.
- Review MAGTF COG:
 - Identify CSSE strengths and weaknesses.
 - Identify which are MAGTF critical vulnerabilities.
- Convene/alert the Red Cell.
- Begin staff estimate.
- Refine area of interest.
- Review assets/determine shortfalls.
- Identify subject matter expert shortfalls.
- Determine constraints and restraints.
- Propose commander's critical information requirements.
- Identify requests for information.
- Determine assumptions.
- Draft mission statement.
- Present mission analysis brief.
- *Commander approves mission statement.*
- Draft warning order.
- Refine commander's intent.

- Develop commander's planning guidance.
- ***Commander issues planning guidance.***

Course of Action Development

- Update IPB.
- Display known friendly forces.
- Review the MAGTF assessment of relative combat power (and the main effort's, if one has been determined).
- Review MAGTF COG refinements and the main effort's analysis.
- Develop initial COA.
 - Logistics estimate of supportability (requirements/capabilities/comparison–shortfalls/analysis/solution).
 - Physical network analysis (operating environment).
 - ***Commander's input.***
- Develop COA development matrix (COA narrative, a description of options in matrix order format).
 - Input from "logistics situation" paragraph of the estimate of supportability and the physical network analysis.
 - ***Commander's input.***
- Develop COA graphic (picture of options within the area of operations: combination of usable roads, nodes, and modes).
- Prepare COA brief.
- Develop recommended wargaming guidance and commander's evaluation criteria.
- ***Commander issues wargaming guidance and evaluation criteria.***

Course of Action War Game

- Conduct war game. A sequence of essential tasks or box method is recommended.
 - "What if" the logistics risks.
 - Identify implications of MAGTF and main effort decision points.
 - Identify implications of unexpected successes, unexpected failures, unexpected emergencies, and unpredicted enemy actions.
 - Build DST/DSM (with CSS decision points).
 - Complete synchronization matrix.
- Validate/refine the estimate of supportability.

- Brief COA war game (recommend optimized logistics system construction—routes, nodes, and distribution methods—based on war game results).
- Refine IPB products.

Course of Action Comparison and Decision

- COA evaluation. (Commander chooses the combination of routes, nodes, and distribution methods that he determines best considering current conditions and the assigned mission.)
- *Commander makes decision.*
- Refine IPB products.
- CSSE Concept of Operations
 - Write CSSE concept of operations. Use single or multiple phases to match operation's phases.
 - Construct CSSE operations overlay.
 - *Commander approves.*
- Issue warning order.

Orders Development

- Prepare order/plan.
- Orders reconciliation.
- Orders cross-walk.
- *Commander approves order/plan.*

Transition

- Transition brief (plans to operations).
- Transition drills (internal to CSSE staff and external to subordinates).
- Confirmation briefs to MAGTF commander and main effort commander.

This page intentionally left blank.