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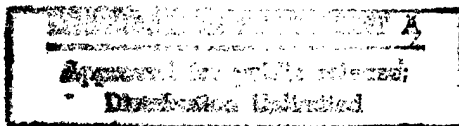
C. Report's Point of Contact: (Name, Organization, Address, Office Symbol, & Ph #): Joint Chiefs of Staff
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D. Currently Applicable Classification Level: Unclassified

E. Distribution Statement A: Approved for Public Release

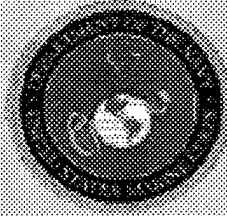
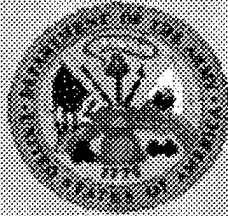
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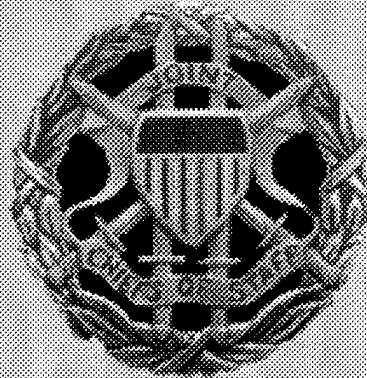


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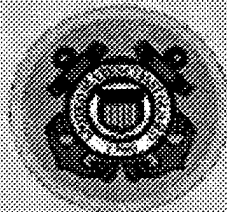
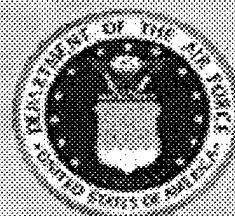
Joint Pub 4-01.8



**Joint Tactics, Techniques,
and Procedures for
Reception, Staging, Onward Movement,
and Integration**



**SECOND DRAFT
APRIL 1998**



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AQ I 98-12-2355

PREFACE

1. Scope

This joint tactics, techniques, and procedures (JTTP) publication provides overarching guidelines for planning and executing joint reception, staging, onward movement, and integration (JRSOI) of the Armed Forces of the United States. It explains the process of JRSOI using four major functions--command and control, communications, computers and intelligence; force protection; JRSOI support organization; and host nation/contract support. Its focus is at the supported combatant command level.

2. Purpose

This publication is prepared under the direction of the Chairman of the Joint Chiefs of Staff. It sets forth doctrine and select JTTP to govern the joint activities and performance of the Armed Forces of the United States in joint operations and provides the doctrinal basis for US military involvement in multinational and interagency operations. It provides military guidance for the exercise of authority by combatant commanders and prescribes doctrine and selects tactics, techniques, and procedures for joint operations and training. It provides military guidance for use by the Armed Forces in preparing their appropriate plans. It is not the intent of this publication to restrict the authority of the combatant commander from organizing the force and executing the mission in a manner deemed appropriate to ensure unity of effort in the accomplishment of the overall mission.

3. Application

a. Doctrine and guidance established in this publication apply to the commanders of combatant commands, subunified commands, joint task forces, and subordinate components of

1 these commands. For ease of reading, the term combatant commander is used throughout the
2 manual to represent the above commands as appropriate. This doctrine and guidance also may
3 apply when significant forces of one Service are attached to the forces of another Service or
4 when significant forces of one Service support forces of another Service. Combatant
5 commanders must ensure that personnel responsible for JRSOI planning and execution receive
6 appropriate training, are regularly exercised, and are formally assessed on their ability to provide
7 the required resources where and when needed to support joint operations.

8
9 **b.** The guidance in this publication is authoritative, as such, this doctrine (or JTTP) will
10 be followed except when, in the judgment of the commander, exceptional circumstances dictate
11 otherwise. If conflicts arise between the contents of this publication and the contents of Service
12 publications, this publication takes precedence for activities of joint forces unless the Chairman
13 of the Joint Chiefs of Staff, normally in coordination with other members of the Joint Chiefs of
14 Staff, provides more current and specific guidance. Commanders of forces operating, as part of a
15 multinational (alliance or coalition) military command should follow multinational doctrine and
16 guidance ratified by the United States. For doctrine and guidance not ratified by the United
17 States, commanders should evaluate and follow the multinational command's doctrine and
18 procedures, where applicable.

19
20 For the Chairman of the Joint Chiefs of Staff:

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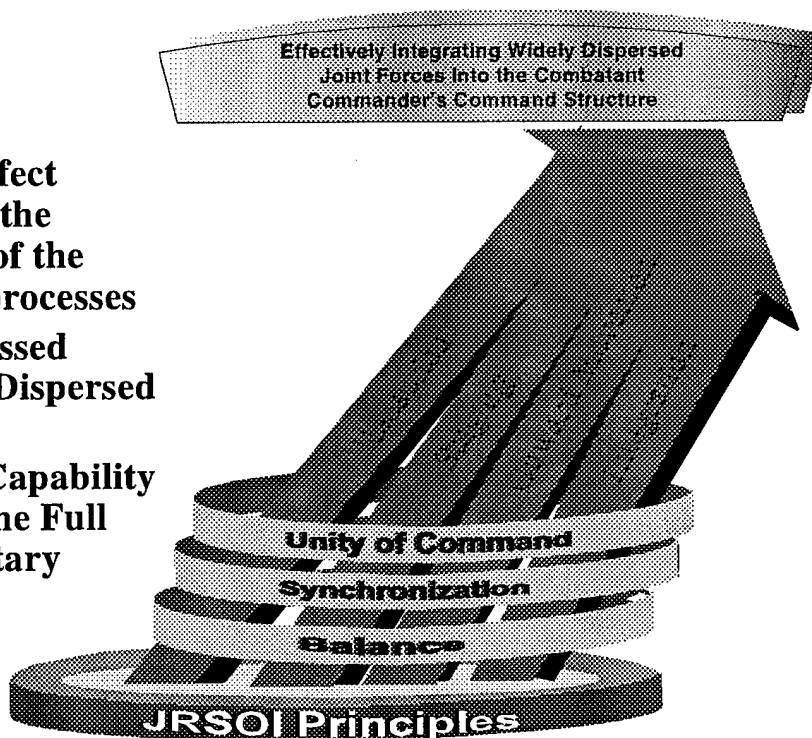
EXECUTIVE SUMMARY

"Dominant maneuver will be the multidimensional application of information, engagement, and mobility capabilities to position and employ widely dispersed air, land, sea and space forces to accomplish the assigned operational tasks...Dominant maneuver will require forces that are adept at conducting sustained and synchronized operations from dispersed locations."

Joint Vision 2010

JRSOI ENHANCES FULL SPECTRUM DOMINANCE

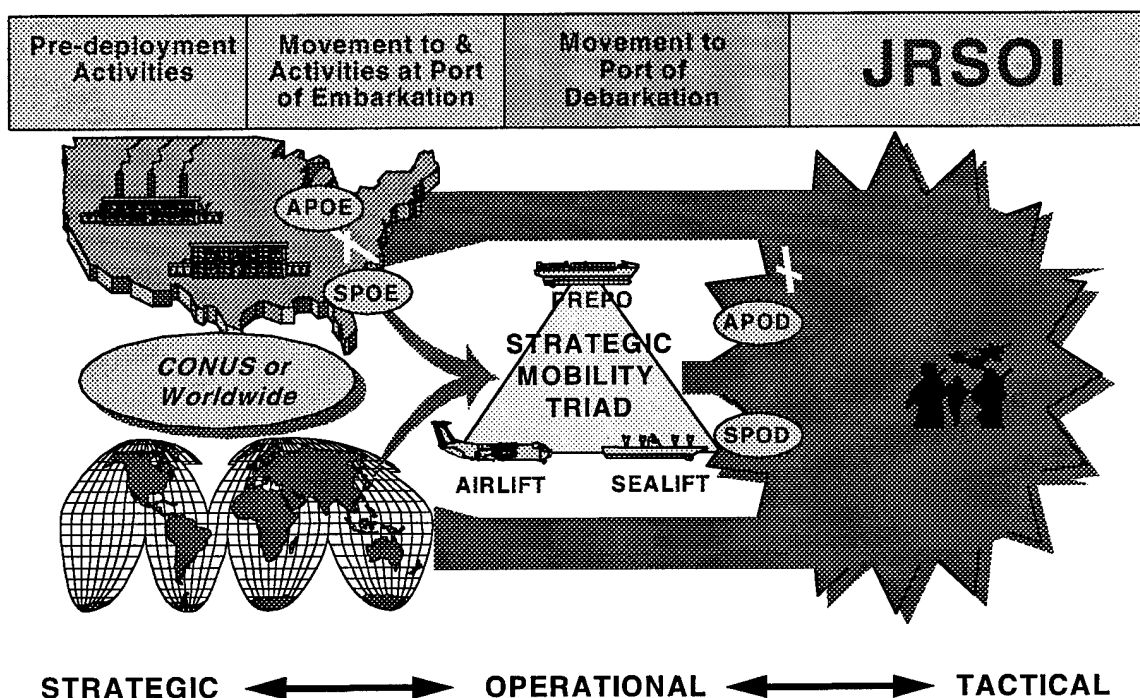
- Synergistic Effect Generated by the Convergence of the Four JRSOI processes
- Generates Massed Effects From Dispersed Forces
- Provides the Capability to Dominate the Full Range of Military Operations



1. Introduction. The deployment process includes planning and executing activities that begin upon notification of a potential need to accomplish a mission requiring deployment of forces. Deployment ends when the unit commander arrives at the prescribed destination with his unit ready to conduct operations. There are four phases of the deployment process: predeployment activities; movement to and activities at the port of embarkation; movement to port of

- 1 debarkation; and joint reception, staging, onward movement, and integration. Although
- 2 deployment is an iterative process overall, JRSOI as the last deployment phase completes the
- 3 deployment process for force elements.

Four Phases of the Deployment Process



- 4
- 5
- 6 JRSOI is the responsibility of the supported combatant commander receiving augmenting forces.
- 7 During JRSOI, planned capability is turned into actual on-site capability to conduct specified
- 8 missions. JRSOI includes receiving personnel, materiel, and equipment; assembling them into
- 9 units at designated staging sites; moving these units to a destination within the joint operations
- 10 area (JOA); and integrating these units into a mission ready joint force. Often, these activities are
- 11 performed concurrently rather than sequentially; they may be performed in a different sequence;
- 12 and some steps may even be performed before a deploying unit enters the JOA. For example,
- 13 Marine Air Ground Task Forces task organize before they deploy, thereby eliminating most
- 14 staging area activities associated with reuniting forces and equipment and organizing them for
- 15 onward movement.

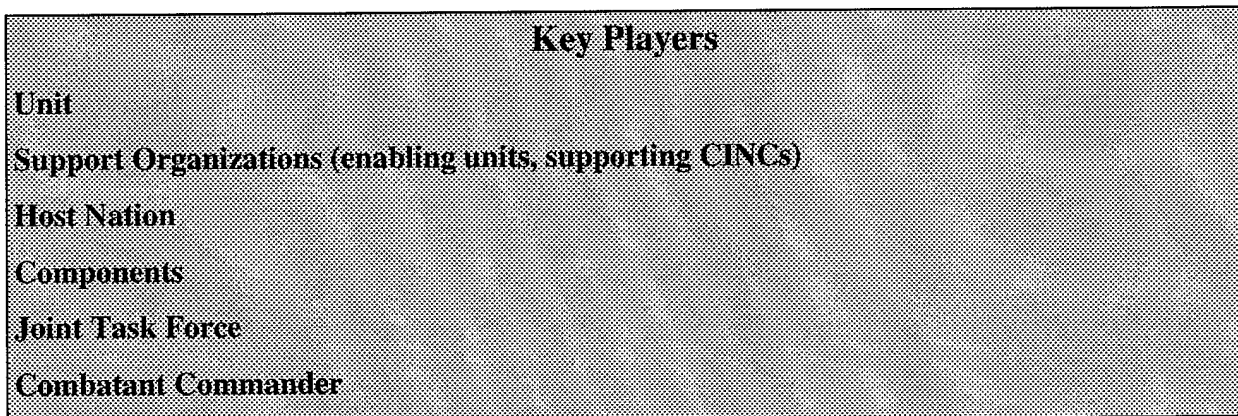
JRSOI must be responsive to the combatant commander and his priorities. Mission, enemy, terrain, troops, time available (METT-T) and civilian considerations influence decisions. For example, METT-T factors may require certain types of units to be in high demand and prepared for immediate employment. JRSOI providers must be able to locate these units and coordinate their onward movement. Critical resources such as heavy equipment transporters, fuel support, and ground transportation to move personnel may require diversion from other missions. Information dissemination via a robust communications infrastructure is also essential for managing this type of complex, ever-changing support environment.

2. Principles. JRSOI expedites the buildup of planned capability with a continuous and controlled flow of forces and supplies into and within the JOA. JRSOI also enhances survivability by avoiding saturation at nodes and along lines of communication within the JOA. JRSOI depends on a well planned and managed time phased force and deployment data (TPFDD) flow. Successful JRSOI is characterized by three overarching principles: unity of command, synchronization, and balance.

- Unity of command is characterized by a single individual being responsible for the overall coordination of JRSOI activities. This person is the combatant commander of the theater where deploying forces flow into. The combatant commander adjusts resources based upon the deployment flow into the theater, controls the movement of forces in his area of operations, provides support to personnel arriving into the theater, and centrally coordinates the efforts of all other key players in the JRSOI process.
- Synchronization applies when managing the TPFDD flow. The goal of synchronization is efficient and timely linkage of deployed personnel, equipment, and materiel. The key to successful synchronization is ensuring that arrival of personnel coincides with the arrival of unit equipment/materiel. Synchronization can be enhanced when personnel and equipment arrive either at the same port or at ports that are reasonably close together. A well-synchronized flow expedites buildup of mission capability, avoids saturation at nodes and along lines of communication within the JOA, and thereby enhances survivability.

1
2 • Balance also applies to managing the TPFDD flow. It is especially relevant to the
3 relationship between deployment and theater distribution. To achieve balance, the flow through
4 the intertheater pipeline and the intratheater distribution network must be regulated and
5 integrated to allow a continuous and controlled flow of forces and supplies into and within the
6 JOA. Efficiency is enhanced to the degree that interface requirements among modes of
7 transportation, ports, and storage facilities have been planned and implemented. Continuous
8 flow is improved by minimizing: handling, the number of transfer points, and the number and
9 variety of carriers. Saturation can be avoided, survivability enhanced, and balance achieved by
10 ensuring that people, equipment, materiel, and information flow as directed at a rate that can be
11 accommodated at every point along the entire network from origin to destination.

12
13 **3. Players.** Successful JRSOI execution relies on the support of a variety of individuals, units,
14 and organizations. Key players in the JRSOI process are depicted below.



23
24 **4. Contents.** The purpose of this manual is to describe JRSOI in terms of participants,
25 processes, command relationships, and enablers that contribute to successful JRSOI operations.
26 Summaries of chapters and appendices are below.

1 a. Chapter I, Overview, describes force projection, the deployment process, and the
2 critical role JRSOI plays in force projection. It defines JRSOI and generally discusses JRSOI
3 processes and elements.
4

5 b. Chapter II, Command Relationships, defines command relationship options
6 (combatant command, operational command, tactical control, and administrative control); and
7 discusses command and control relationships among the key players in JRSOI.
8

9 c. Chapter III, Planning, emphasizes the importance of planning to successful JRSOI
10 operations; summarizes the joint planning process; and describes essential planning, support, and
11 host nation considerations.
12

13 d. Chapter IV, Execution, explains organizations, processes, systems, and infrastructure
14 needed to execute JRSOI. Force tracking, movement control, and the incremental build-up of
15 combat power of deploying forces are some of the specific topics covered.
16

17 e. Chapter V, Reception, describes activities that occur at ports of debarkation; discusses
18 reception considerations such as force protection, intransit visibility, port capacities, and host
19 nation support; details elements of the JRSOI support structure (reception facilities, storage sites,
20 and holding areas); and graphically depicts notional joint aerial and water port complexes.
21

22 f. Chapter VI, Staging, describes what activities occur during staging to help units
23 become mission capable forces (assembling personnel, receiving equipment, performing
24 equipment checks, accomplishing training, etc.); explains what is required for successful staging
25 in the way of facilities, life support, and force protection; and graphically depicts a notional
26 staging area.
27

28 g. Chapter VII, Onward Movement, describes the key elements of onward movement
29 such as processing personnel and cargo, sequencing loads, and performing movement control;

1 explains the importance of command and control, host nation support, and other key contributors
2 to successful onward movement; and details a variety of en route facilities, with particular
3 attention paid to convoy support site functions and notional layout.
4

5 h. Chapter VIII, Integration, discusses how the deploying forces are integrated into the
6 combatant commander's command structure; and explains criteria used to determine when a unit
7 is ready to be integrated based on command and control capabilities and ability to perform
8 assigned missions.
9

10 i. Chapter IX, Enablers, describes what automated systems (Global Command and
11 Control System, Global Transportation Network, etc.) support JRSOI; discusses visibility
12 processes that help track forces and equipment; and explains how theater distribution, host nation
13 support, and contracting contribute to JRSOI operations.
14

15 j. Appendix A, Service Capabilities, provides a matrix explaining a wide variety capabilities
16 each uniformed Service has to support JRSOI in areas such as port operations, force protection,
17 engineering, movement control, supply and services, and more.
18

19 k. Appendix B, JRSOI Support Structure, provides descriptions of the physical structure,
20 facilities, and areas that support JRSOI such as various transportation nodes, staging and holding
21 areas, pre-positioned equipment and supply sites, etc.
22

23 l. Appendix C, Sample JRSOI Appendix for OPORD, discusses recommended contents of an
24 operations order appendix concerning JRSOI.
25

26 m. Appendix D, Deployment Planning Tools, describes a number of ADP systems that support
27 deployment and JRSOI at both the strategic and theater levels.
28

29 n. Appendix E, References, lists source documents used to write this manual.
30

- 1 o. Appendix F, Administrative Instructions, provides information concerning authorship, where
- 2 to send recommendation changes, and reproduction of the manual.

CHAPTER I OVERVIEW

"Future force projection missions, like those throughout history, will demand well-developed operational and logistical planning, force mix, appropriate sequencing into and out of a theater, and a constant requirement for soldier and unit versatility. Such missions will require leaders and units that can operate in ambiguity and have the agility to adapt and adjust. Set piece-thinking does not fit force projection. All of these requirements will occur in a joint or combined environment."

General Fredrick M. Franks, Jr.

1. General. With fewer United States (US) forces forward stationed overseas, US National Military Strategy relies heavily on the fundamental concept of force projection. Successful force projection rests on the ability to alert, mobilize, and deploy forces to a regional crisis; and then rebuild combat capabilities rapidly after personnel and materiel arrive in the theater. This chapter presents an overview of joint reception, staging, onward movement, and integration (JRSOI) and its importance to force projection. It defines the phases, describes the principles of JRSOI (unity of command, balance, and synchronization), and identifies the essential elements for effective JRSOI (command, control, communications, computers, and intelligence (C4I); force protection; JRSOI support organization and host nation/contract support).

a. Deployment is a key component of force projection. The deployment process includes continuous planning that begins with identification of a need, and ends when units are integrated into the joint force. Deployment is conducted in four phases: predeployment activities; movement to and activities at a port of embarkation (POE); movement to a port of debarkation (POD); and Joint Reception, Staging, Onward Movement, and Integration (JRSOI). These segments describe the major activities of the Joint force from point of origin to point of employment and are discussed in JP 3-35, *Joint Deployment and Redeployment Doctrine*.

b. Joint force deployment is a dynamic and complex process that involves a multitude of organizations and processes that requires continuous coordination and integration during planning and execution. Process seams and friction may occur at functional or organizational interfaces when physical resources and information are transferred. A successful deployment requires the smooth implementation of each segment and seamless transition between segments.

c. Force deployments can originate from the continental United States (CONUS) or forward locations outside of CONUS (OCONUS). Units may deploy with all or some of their equipment, or they may use equipment that has been pre-positioned around the world both ashore and afloat. Figure I-1 illustrates the deployment process from POEs to final destination in-theater utilizing the strategic mobility triad. The strategic mobility triad consists of strategic airlift, strategic sealift, and pre-positioned equipment. This triad optimizes the deployment process and enhances the potential for success.

Four Phases of the Deployment Process

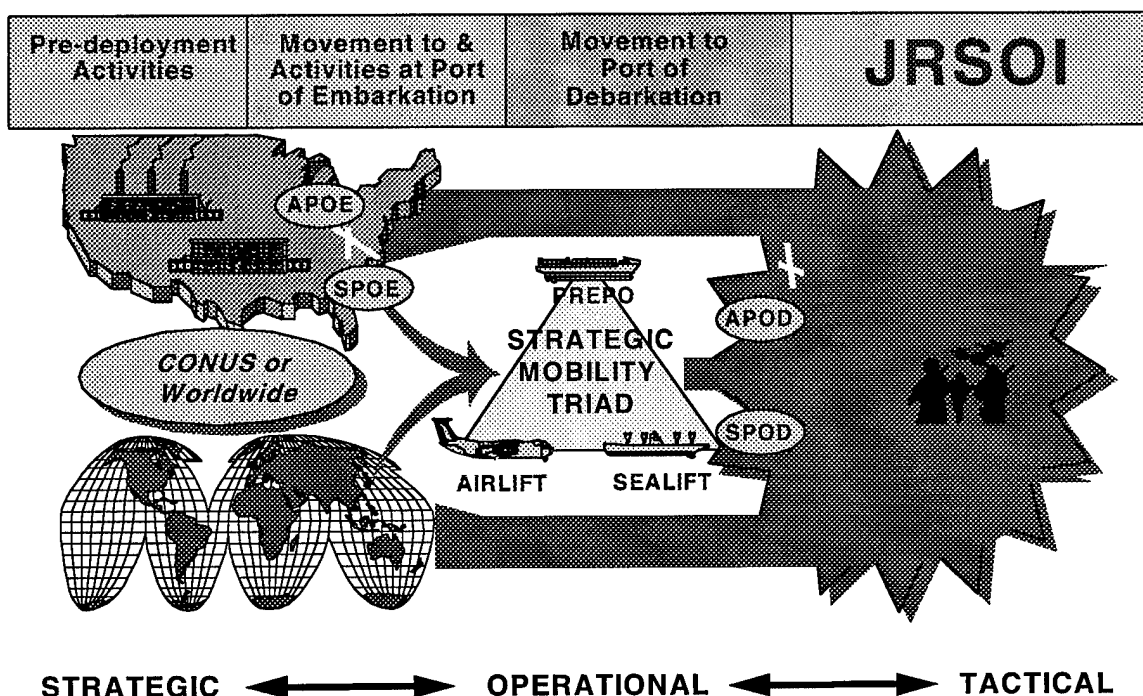


Figure I-1. Four Phases of Deployment

1 **2. Phases of Joint Reception, Staging, Onward Movement, and Integration.** In a force
2 projection environment, the ability to execute a mission largely depends on the speed with which
3 forces assemble at the required location. JRSOI is the essential process that transitions deploying
4 forces, consisting of personnel and materiel arriving in theater, into forces capable of meeting the
5 combatant commander's operational requirements. Maintaining effectiveness and promoting
6 efficiency in JRSOI facilitates preparation for combat by providing adequately resourced mission
7 capable forces to execute the combatant commander's mission.

8
9 **a.** JRSOI consists of receiving personnel, materiel, and equipment in theater; assembling them at
10 designated staging sites; moving these units within the theater; and, finally, integrating this
11 capability into a military force ready to accomplish the assigned mission. The four phases of
12 JRSOI are described below. Often these activities are performed concurrently rather than
13 sequentially; they may be performed in a different sequence; and some steps may be performed
14 before a deploying unit enters the joint operations area (JOA). For example, Marine Air Ground
15 Task Forces task organize before they deploy, thereby eliminating most staging area activities
16 associated with re-uniting forces and equipment and organizing them for onward movement.

- 17 • **Reception** operations include all those functions required to receive and clear unit
18 personnel and equipment through the POD. Reception is the process of offloading
19 and marshaling unit personnel, equipment and materiel and then transporting these
20 elements from the POD to a staging area.
- 21 • **Staging** assembles, temporarily holds, and organizes arriving personnel and materiel
22 into units and forces; and prepares them for onward movement and tactical
23 operations.
- 24 • **Onward Movement** is the process of moving units and accompanying materiel from
25 reception facilities, marshaling areas, and staging areas to tactical assembly areas
26 (TAA) or other theater destinations.
- 27 • **Integration** is the process of establishing force projection units into coherent
28 operational units at the designated JOA.

SIMPLICITY

The primary emphasis in command relations should be to keep the chain-of-command short and simple so that it is clear who is in charge.

Joint Pub 1, Joint Warfare of the Armed Forces of the United States

b. The combatant commander is responsible for JRSOI in the theater. This includes all actions required to make arriving forces operationally ready and then integrated into the joint force. The capability of strategic lift to move personnel, equipment, and materiel to the reception points (PODs) must be matched by the capability to receive and process the force. The combatant commander must have visibility of the deployment flow to control the rate as well as the sequence of deploying forces.

c. JRSOI is a critical operational challenge that relies on a logistical infrastructure for successful execution. As deploying units arrive in theater, they are heavily dependent on logistics systems until they are reunited with their equipment. As deploying units assemble, efforts are focused on preparing for future operations and integration into the joint force. Successful JRSOI requires command emphasis in planning, rehearsing, synchronization, and attention to detail. JRSOI is an integral part of an operation and enhances employment potential.

d. JRSOI provides a common framework to focus joint and Service capabilities on land, at sea, and in the air into a coherent operation. The major functional areas associated with planning and executing JRSOI will be discussed in detail in subsequent chapters. The process map depicted in Figure I-2 was developed as a guide to assist with planning and executing JRSOI. The context of each JRSOI process may vary reflecting the nature of the operation; mission enemy, terrain, troops-time available, sometimes referred to as METT-T, and civilian considerations. However, deploying forces, regardless of Service, normally undergo some form of reception, staging, onward movement, and integration. For example, a fighter squadron may complete JRSOI in a few hours at the reception point or aerial port. Other units, such as an Army division, may require up to 30 days to complete the entire process.

1

Joint Reception, Staging, Onward Movement, and Integration (JRSOI) Process Map

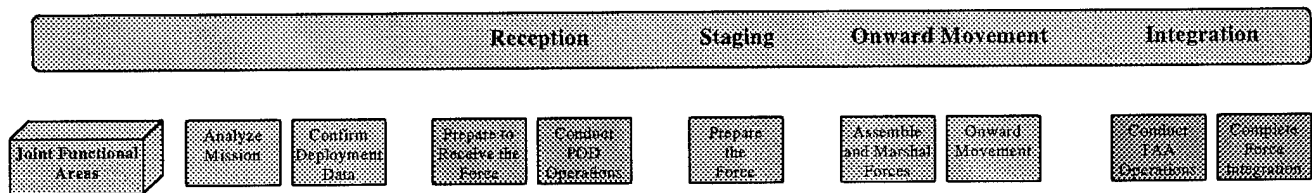


Figure I-2. The
JRSOI Process

3. Principles of JRSOI. Just as the principles of war provide guidance for conducting war, there are three principles of JRSOI that can assist commanders and their staffs in the planning and execution of JRSOI. Combatant commanders should consider these principles depicted in Figure I-3 and explained below when planning JRSOI operations.

Principles of JRSOI

Unity of Command

Synchronization

Balance

Figure I-3 Principles of JRSOI

a. **Unity of Command** is critical to successful JRSOI accomplishment. The combatant commander has overall responsibility for JRSOI in the theater. Unity of command provides the focus required to achieve an effective and efficient process by which to build mission capability. The combatant commander adjusts resources based upon the deployment flow into the PODs, controls the movements in the area of operations, and provides support to personnel arriving in theater.

Unity of Command

Unity of command is the interlocking web of responsibility that is a foundation for trust, coordination, and the teamwork necessary for unified military action. It requires clear delineation of responsibility among commanders up, down, and laterally.

JP 0-2, Unified Action Armed Forces (UNAAF), 24 Feb. 95

1 **b. Synchronization** links deployed personnel, equipment, and materiel in a timely manner. A
2 well-synchronized flow expedites buildup of mission capability, avoids saturation at nodes and
3 along lines of communication (LOC) thereby enhancing survivability. Synchronization requires
4 detailed joint planning, timely and predictable airflow and sea flow, and the ability to adjust
5 movement schedules.

6
7 Synchronization occurs when personnel and equipment arrive either at the same port or at ports
8 that are geographically close together. This enhances command and control (C2) and helps
9 maintain unit integrity. Managing the timing of the time phased force and deployment data
10 (TPFDD) flow is a key activity for ensuring that the arrival time of personnel, equipment, and
11 materiel coincide. Managing the TPFDD allows the combatant commander to adjust the
12 movement schedule for units as mission requirements or conditions change. Joint total asset
13 visibility (JTA V) further provides users with timely and accurate information on the location,
14 movement, status, and identity of units, personnel, equipment, and supplies. As described below,
15 a lesson learned from Operation Desert Storm illustrates the principle of synchronization.

Synchronization

18 Desert Storm synchronization requires detailed Joint planning, timely and predictable
19 airflow and sea flow. In December, the primary cause of overcrowding (in the vicinity of
20 PODs) was a lack of unit integrity in the sea flow. Property of individual units was
21 frequently dispersed among multiple ships. An analysis of 19 randomly selected combat
22 arms and combat support (CS) battalions indicate that, on average, a battalion's
23 equipment arrived on seven vessels over a period of 26 days. On average, combat service
24 support (CSS) battalions came into port on 17 vessels over a period of 37 days. As an
25 example of one extreme, all the equipment of the 121st Signal Battalion of the 1st Infantry
26 Division (M), one of the lead units from CONUS, arrived on two ships within three days of
27 each other. At the other extreme, gear belonging to the 143d Signal Battalion and 1st
28 Maintenance Battalion from Europe was spread over 17 and 26 ships respectively, docking
29 over periods of 25 and 45 days respectively. The disruption of throughput operations
30 caused by dispersion of unit property on multiple ships was further exacerbated when

1 single ships were loaded with partial unit sets bound for two different ports. The failure to
2 synchronize airflow and sea flow and not maintain unit integrity contributed to excessively
3 long stays in port by soldiers awaiting equipment. The consequent over concentration in
4 the staging area strained available reception capability and provided the enemy a
5 vulnerable target over an extended period.

6 Ist Infantry Division (Forward)

7 Desert Shield/Storm After Action Report, 30 May, 1991

8
9 **c. Balance** is a key consideration for deployment. Balance provides distinct advantages to both
10 the unit and the force closure process. It leverages the strength of the chain of command during
11 the JRSOI process, simplifies force tracking, and increases opportunities for training. It includes
12 task organizing, tailoring, and echeloning.

- 13
- 14 • **Task Organizing** is the process of forming an operating force of specific size and
15 composition to meet a unique task or mission. Task organizing distributes
16 capabilities at each C2 level. Early arriving critical JRSOI support elements that
17 improve throughput actually enhance mission success. For example, port handling
18 organizations, engineer support, and force protection units.
 - 19
 - 20 • **Tailoring** matches the force mix and sequence of deployment to the supported
21 combatant commander's operational requirements. The purpose of force tailoring is
22 to generate effective, timely capability given mission requirements and lift
23 constraints. Commanders must be able to tailor forces based upon the best
24 information available at the time of deployment execution. Rarely will commanders
25 enjoy the luxury of a standard unit perfectly suited to the METT-T conditions of a
26 particular contingency. Instead, commanders must work through the complex task of
27 force tailoring by focusing on what force capability is required to best achieve the
28 stated mission. In addition, the tailoring process must achieve a balance between
29 competing employment and deployment requirements. The inability to conduct

JRSOI, for example, would have just as disastrous effects as not having the right mix of combat power in the early stages of a force projection operation.

Employment Drives Deployment

At the conclusion of the planning phase of Operation Joint Endeavor, the Task Force Eagle (TFE) commander envisioned a deliberate, balanced deployment. The TFE lead force package augmented the Corps' National Support Element (NSE) in establishing the Intermediate Staging Base (ISB) in Hungary. The Task Force would then follow with an engineer heavy force package to conduct a river crossing and open the Line of Communication (LOC) into Bosnia. It was not until the fourth force package that any substantial combat power would move into the TFE AO. With the signing of the General Framework Agreement for Peace (GFAP), the implementation requirements of the peace agreements required the immediate entry of a sizable combat force. To meet the unanticipated demands of the GFAP timeline, a "Minimum Essential Force" was a mix of employment capabilities and minimum logistics assets. Comprised mainly of Cavalry, Armor and Engineer assets, the force was resequenced to lead the Task Force deployment. This late-- and significant--adjustment minimized the early deployment of combat service support assets and reflected the GFAP requirement to rapidly establish a significant and viable military presence. It also tended to desynchronize a wide range of deployment activities including RSOI and movement control.

Initial Impressions Report

Task Force Eagle Initial Operations

Operation Joint Endeavor May 1996

- **Echelonning** is organizing units for movement and establishes a priority of movement. Echelons may be divided into advanced parties, main bodies, and rear parties. For example, echelonning logistics capability into theater in proper time to meet the combatant commander's requirements.

- 1 **4. Essential Elements of JRSOI.** Several elements are essential to the successful execution of
- 2 JRSOI. Some of the more important elements are shown below in Figure I-4.

Essential Elements

- Command, Control, Communications, Computers, and Intelligence (C4I)
- Force Protection
- JRSOI Support Organizations
- Host Nation/Contract Support

Figure I-4. Essential Elements

a. C4I is the means by which the combatant commander synchronizes joint force activities to achieve mission success. Joint forces operate in diverse environments and conduct a variety of operations as part of multinational or interagency teams. Rapid force projection, extended LOCs, and potential forcible entry prior to establishing operations in logistically bare-based areas require a C4I structure that is versatile, deployable, expandable, compatible, and secure.

- JRSOI requires effective C4I systems with responsive leaders and managers. C4I systems must link the combatant commander, supporting commanders-in-chief (CINC), Service components, deploying units, JRSOI support organizations, and the tactical commanders who will integrate the deploying forces into their commands. Reporting and information systems should provide accurate, relevant, and timely information to the appropriate staffs and leaders to plan, integrate, direct, and execute their assigned part of the JRSOI operation.

Effective C4I must be responsive to the combatant commander for deployment and JRSOI management. The combatant commander must be able to influence the outcome of the deployment. To do this, he must know what force capabilities are

1 available and what capabilities will be available in the future. METT-T influenced
2 changes may cause certain units to be in high demand or needed for immediate
3 employment. C4I systems must enable JRSOI providers to locate these units and
4 divert resources to expedite their onward movement. For detailed joint C4I planning
5 guidance, see JP 6-0, *Doctrine for Command, Control, Communications, and*
6 *Computer (C4) Systems Support to Joint Operations.*

7
8 **b. Force protection** is a critical element of all joint force operations. Commanders must ensure
9 requisite force protection measures are enforced consistent with the threat. For JRSOI, the
10 challenge is to protect geographically dispersed forces, with limited self protection capability,
11 that are configured for deployment until JRSOI is completed. Risk must be assessed and
12 comprehensive force protection plans developed to address vulnerabilities and to counter
13 potential threats to forces, infrastructure, and information systems. The combatant commander's
14 foremost force protection concern should be maintaining local security to preserve tactical and
15 operational flexibility and freedom of action. Effective and efficient JRSOI operations can
16 reduce force vulnerability by ensuring that units quickly complete the process. Ensuring that
17 forces do not remain static in vulnerable situations is facilitated by: coordinating flow so
18 personnel and equipment arrive nearly simultaneously; minimizing the force footprint by time-
19 phasing units so that those elements required to conduct JRSOI deploy initially; synchronizing
20 theater reception, staging, and onward movement capabilities to prevent bottlenecks; and being
21 able to control and adjust the TPFDD flow and movement schedules. For additional information
22 see JP 3-54, *Joint Doctrine for Operations Security*, and JP 3-10, *Joint Doctrine for Rear*
23 *Operations.*



Units rapidly organize for departure from PODs
in order to reduce vulnerability from enemy threat.

c. **JRSOI Support Organization.** As units arrive in the theater of operations, they are in a deploying status with no or limited self-sustainment capability and may require life support as well as other logistics support. Their requirements should be met until the units assemble and become capable of sustaining themselves and/or have been logistically integrated into the gaining command. To guarantee JRSOI support, planners should schedule units that provide essential supplies and services to arrive early enough in the deployment flow to be operational prior to the support requirement. JRSOI support consists of the following functional areas:

JRSOI SUPPORT FUNCTIONAL AREAS

- SUPPLY SYSTEMS
- MAINTENANCE
- TRANSPORTATION
- SECURITY
- GENERAL ENGINEERING
- HEALTH SERVICES
- MISCELLANEOUS SERVICES

Miscellaneous services encompass life support requirements such as meals, water, shelter, sanitation, trash removal and support elements for operating staging and marshaling areas. Logistics to support JRSOI requirements are supplied by organizations such as Army area support groups (ASG), Naval mobile construction battalions, expeditionary logistics support facilities, contractor support, the host nation (HN), or other contracted agencies.

d. Host nation/contract support can provide valuable resources to support JRSOI operations. Host nation support (HNS) may include operations at: reception facilities; air and naval operating bases; staging facilities; support areas; and may encompass a wide variety of commodities and services concerning supplies, medical, transportation, facilities, communications, rear area operations, petroleum, military police, prisoners of war/internees, and civil labor. In addition to established HNS agreements which are normally limited to use in war, this support can also be arranged using existing acquisition and cross-servicing agreements (ACSA) or, at the local level, by directly contracting for support and services. In contingency operations, an enormous saving in manpower, units, and equipment is possible by maximizing HNS. This is particularly true in the area of transportation and specialized equipment. If HNS agreements do not exist, or have limited application, then the combatant commander in coordination with the State Department should immediately start negotiation of HNS agreements and arrangements combined with an integrated contracting plan to obtain necessary support. See Chapter III for details concerning contract support options.

e. Additional guidance for JRSOI related tasks and operations can be found in Joint Pub. 4-0, *Logistics*, Joint Pub. 4-01.3, *JTTP for Movement Control*, Joint Pub 4-07.5, *JTTP for Water Terminal Operations*, and Joint Pub. 3-35, *Joint Deployment and Redeployment Doctrine*.

CHAPTER II

COMMAND RELATIONSHIPS

"Command is central to all military action, and unity of command is central to unity of effort. Inherent in command is the authority that a military commander lawfully exercises over subordinates and confers authority to assign missions and to demand accountability for their attainment."

JP 0-2, Unified Action Armed Forces (UNAAF), 24 Feb 95

1. General. This chapter describes command and control relationships that are essential for the successful accomplishment of JRSOI operations. Under provisions of Title 10, US Code (USC), as revised by the Goldwater-Nichols (DoD Reorganization) Act of 1986, the combatant commander exercises directive authority over military operations, joint training, and logistics within the JOA. Forces can be transferred from one CINC to another only as directed by the Secretary of Defense (SECDEF) and approved by the President (Section 162 of Title 10). When forces are transferred, the command relationship the gaining commander will exercise over those forces must be specified. The combatant commander normally exercises operational control (OPCON) over forces designated by the National command Authorities (NCA).

Combatant Command functions include giving authoritative direction to commands and forces necessary to carry out missions assigned to the command, including authoritative direction over all aspects of military operations, joint training, and logistics.

(10 USC Sec 164 (c)(A))

The combatant commander's mission within his JOA, for example a small humanitarian operation versus major theater war (MTW), will impact decisions on establishing the appropriate C2 structure for the conduct of operations, to include JRSOI. The combatant

commander organizes the headquarters (HQ) as necessary to carry out all duties and responsibilities and usually makes the final decision on the establishment of boards, centers, cells, etc., that are available to support military operations in certain cases. The combatant commander serving as the force provider normally retains combatant command (COCOM) of all assigned resources, but he normally delegates appropriate command authority to subordinate commanders. The two levels of command authority that are normally transferred are OPCON and tactical control (TACON). All US military organizations that operate the theater LOC should be placed under the OPCON of a single commander who can plan and direct JRSOI, sustainment, and retrograde operations for the combatant commander.

Command Relationships

Combatant Command (COCOM)

COCOM is the command authority over assigned forces vested only in the commanders of combatant commands by Title 10, US Code, Section 164, or as directed by the President in the Unified Command Plan, and cannot be delegated or transferred.

Operational Control (OPCON)

OPCON is the command authority that may be exercised by commanders at any echelon at or below the level of combatant command and cannot be delegated or transferred.

Tactical Control (TACON)

TACON is the command authority over assigned or attached forces or commands, or the military capability or forces made available for tasking, that is limited to the detailed and usually local direction and control of movements or maneuvers necessary to accomplish the assigned missions or tasks.

Administrative Control (ADCON)

ADCON is the direction or exercise of authority over subordinate or other organizations in respect to administration and support. ADCON may be delegated to and exercised by commanders of Service forces assigned to a combatant commander at any echelon at or below the level of Service component command.

Joint Pub 0-2, Unified Action Armed Forces

1 Deploying forces are split into elements (passengers and cargo) as they transit the various nodes of
2 the theater LOC. The combatant commander should designate commanders for each theater LOC
3 node.

4
5 **a.** JRSOI support organizations should be available and deployed early on with combat elements
6 or deployed prior to combat elements. These organizations may become part of a flexible deterrent
7 option (FDO) in the JOA. This requires organizations well versed in JRSOI requirements and
8 requires consistent support from and coordination among the J-3, J4, and J-5.

Passage of Lines

10
11
12 **Regardless of the established C2 relationships, JRSOI operations require the accurate,**
13 **timely exchange of essential elements of information concerning the deploying force. The**
14 **JRSOI process is analogous to a "Passage of Lines" in which stationary and passing forces**
15 **often co-locate command posts to provide common access to C4I information systems,**
16 **rapidly exchange information, coordinate activities, and provide the combatant commander**
17 **a common operational picture (COP). During JRSOI operations, following similar**
18 **procedures will greatly enhance the integration of mission capable organizations into the**
19 **combatant command, which is the ultimate goal of JRSOI.**

20
21
22
23 **b.** Within each regional CINC's JOA, the US organizations available to accomplish JRSOI vary
24 significantly. Fundamental factors that cause this variance include geographical constraints such
25 as the length of LOCs, capability of HN infrastructure, ACSAs, anticipated threat and mission, and
26 forward-stationed US force structure. Each of the Service components possesses unique,
27 specialized forces and capabilities to support various aspects of JRSOI.

c. Authoritative direction aids effective execution of approved operations plans, effectiveness and economy of operations, and prevention or elimination of unnecessary duplication of facilities and overlapping of functions among the Service component commanders. (See Joint Pub 4-0)

2. Command Relationships

a. **Chairman JCS.** The Chairman, Joint Chiefs of Staff (CJCS) transmits NCA orders to the combatant commanders as directed, coordinates all communications in matters of joint interest, and acts as the spokesman for the combatant commanders. Responsibilities of the CJCS come from a variety of sources such as US Code Title 10, Joint Strategic Capabilities Plan (JSCP), and other strategic documents. Some of the responsibilities relating to deployment include:

- Monitoring the execution of military force deployment and employment operations and keeping the NCA informed.
- Advising the SECDEF on critical deficiencies in force capabilities.
- Preparing joint logistics and mobility plans to support strategic and joint operations plans.
- Apportioning critical transportation assets.

b. **Military Departments.** Subject to the authority of the commanders of the combatant commands, the military departments (IAW Chapter 6, Title 10, USC) are responsible for administration and support of forces assigned to the combatant commands. The Departments will normally monitor deployment operations through their respective operations centers to ensure that adequate resources are made available to the supported JFC so he can accomplish his assigned task.

Key JRSOI Players

Unit

Support Organizations (enabling units, supporting CINCs)

Host Nation

Components

Joint Task Force

Combatant Commander

c. Combatant Commanders provide authoritative direction to subordinate commands, including authoritative direction over all aspects of military operations, joint training, and logistics. They provide force protection for all military activities within their geographic areas of responsibility (AOR). Combatant commanders are tasked with planning and executing conventional joint military operations, including all facets of reception, staging, onward movement, and integration. They must organize the available logistical resources to support JRSOI and sustainment operations. Forces deploy and are sustained through the LOC, which the combatant commander is responsible for planning and operating. Responsibilities for theater support include:

- Development and operation of the LOC.
- Movement control through the LOC and force tracking.
- Security of the LOC and protection of forces in the LOC. A joint rear area coordinator (JRAC), if designated, will be responsible for key LOC security in the joint rear area. JP 3-10, *Joint Doctrine for Rear Area Operations*, defines the mission of the JRAC. The JRAC has responsibility for coordinating the overall security of the rear area IAW the combatant commander's directives and priorities. The JRAC also coordinates intelligence support and area management in relation to security considerations.
- Liaison for most strategic lift with the United States Transportation Command (USTRANSCOM) or appropriate supporting CINCs/other agencies.
- Integration of pre-positioned (ashore and/or afloat) materiel in theater.
- Establishment of HNS agreements. The in-country Department of Defense (DoD) activity has the lead for preparation, negotiation, and staffing of HNS agreements.
- Contracting and acquiring reception, staging, onward movement facilities, supplies and services.
- Command and control of allocated or apportioned forces as dictated by the combatant commander.

JFCs (combatant commanders) have the authority to organize forces to best accomplish the assigned mission based on their concept of the operations. The organization should be sufficiently flexible to meet the planned phases of the contemplated operations and any development that may necessitate a change in plan.

Joint Pub 0-2, Unified Action Armed Forces (UNAAF)

d. Joint Task Forces may be established on a geographical area or functional basis when a mission has a specific or limited objective. The JTF exercises C2 over forces assigned or attached to the JTF.

e. Supporting Combatant Commanders are frequently tasked to support other geographic CINCs during the execution of joint operations. Types of support may include the deployment of forces, provision of en route basing, in-transit staging areas, and the provision of sustainment.

f. Component Commands normally exercise operational control of the forces assigned or attached to the combatant command. Component commands may have organizations assigned within the theater that play a major role in executing JRSOI, and sustainment operations of the joint force. The combatant commander may assign specific support responsibilities to components for JRSOI. Service component capabilities are depicted in Appendix A.

3. Command Organization. In determining what C2 option is appropriate, the supported CINC should consider the size and type of operation, the organization necessary to direct activities, and provide support required to sustain the operation. Options that may be employed for C2 of JRSOI forces include:

a. Dominate User. The combatant commander assigns responsibility for providing or coordinating JRSOI support to the Service component that is the primary consumer.

b. Most Capable Service. The combatant commander may assign responsibilities to the Service component most capable of performing the mission.

c. Service Responsibility. Each Service is responsible for the logistics support of its own forces.

d. Service Executive Agency. The combatant commander may designate one or more Services to provide common resources to all joint forces. For example, the Army is the executive agent for mortuary affairs.

e. Other options include:

- Augmenting the existing staff with sufficient assets to exercise both staff planning and operational supervision over joint logistics operations.
- Deploying a C2 early entry force, as determined by the combatant commander, to provide the initial management and coordination capability. This force provides the initial C2 for the theater, and is the nucleus around which the command may be built.

No single C2 option works best for all JRSOI operations. Combatant commanders and their subordinates should be flexible in modifying command structures to meet specific requirements of each situation with emphasis on unity of effort. Joint logistics C2 may be best implemented by tasking an existing organization with the joint mission, authority, and responsibility to execute JRSOI operations. Advanced planning precludes the confusion that often results from rapidly establishing logistics organizations during contingencies. The CINC normally designates a component command to synchronize support functions, manage joint operational efforts, and identify resource shortfalls. This headquarters would serve as a fusion point between strategic and theater JRSOI support organizations.

4. Communications. Making extensive use of command, control, communications, and intelligence (C4I) systems as described in Chapter 9, Enablers, the combatant commander must design and implement an architecture (consisting of organizations, procedures, and communications systems) that provides the ability to manage and control the rate of the flow.

CHAPTER III

PLANNING

"To successfully fight and win wars, we must make war planning our central focus. We will develop the best possible plans using the collective wisdom available among all military planning staffs...The products of our planning efforts must be able to stand up to the strongest scrutiny, including the ultimate test: execution."

General John M. Shalikashvili

121. General. This chapter examines joint planning considerations and procedures concerning JRSOI.

The combatant commander is responsible for planning and executing conventional joint military operations in his assigned JOA. These responsibilities encompass all facets of reception, staging, onward movement, and integration. Successful JRSOI requires full integration in the combatant commander's intent.

182. JOPES. Military planners use the Joint Operation Planning and Execution System (JOPES) as the primary tool for planning and executing deployment and JRSOI operations. It is a comprehensive, integrated system of people, policies, procedures, and reporting systems.

22a. Joint operations planning and execution begins in response to perceived or identified threats to US security as well as in response to national vital interests. Joint operational planning is a coordinated process used by combatant commanders to determine the course of action (COA) for accomplishing the assigned task and to direct the actions necessary to accomplish the mission. It provides the commander with a range of capabilities and flexible options for accomplishing the mission. It is through JOPES that deployment plans (whether an operation plan [OPLAN], concept plan [CONPLAN], or functional plan) are developed.

b. Because JOPES is the system used to apportion and sequence movement assets, it is essential that movement data inputs are accurate. Successful execution of the combatant commander's plan depends on integrating JRSOI within JOPES. For a detailed explanation of the joint planning process, its components, and their functions see Joint Pub 5-03.1, *Joint Operation Planning and Execution System Vol I: (Planning Policies and Procedures)*.

Logistics sets the campaign's operational limits. The lead time needed to arrange logistics support and resolve logistics concerns requires continuous integration of logistic considerations into the operational planning process.

Joint Pub 1, Joint Warfare of the Armed Forces of the United States

3. Types of Planning. Two planning processes are available to plan deployment and JRSOI operations within a theater: deliberate and crisis action. The primary difference between the two is time available for planning prior to the onset of a crisis. **Deliberate planning**, or peacetime planning, is used to plan military operations when time permits the total participation of the Joint Planning and Execution Community (JPEC). Deliberate planning produces OPLANs, CONPLANs, and functional plans. **Crisis action planning (CAP)** is conducted during periods of urgency when no on-the-shelf OPLAN is available. The final product of CAP is an executable operations order (OPORD) or campaign plan. Joint Pub 3-35, *Joint Deployment and Redeployment Doctrine*, describes the deliberate and crisis action planning processes in greater detail.

Deliberate Planning Products

Operation Plan (OPLAN). An OPLAN is a complete and detailed joint operation plan. An OPLAN includes detailed annexes with associated appendices and a TPFDD.

Concept Plan (CONPLAN). A CONPLAN is a joint operation plan in an abbreviated "concept" format. A CONPLAN may or may not contain a TPFDD.

Functional Plan. A functional plan is developed for specific military operations in a permissive or non-hostile environment (for example, intratheater logistics, communications, and continuity of operations).

a. Deliberate planning is a five-phased process accomplished by the JPEC during peacetime conditions. Deliberate planning prepares for a possible contingency based upon the best available information and using forces and resources apportioned for deliberate planning in the JSCP and directs the deliberate planning. Deliberate planning develops and refines an OPLAN designed for use during wartime. The OPLAN is a complete and detailed Joint plan that includes a full description of the concept of operations and all annexes applicable to the plan. The plan is based on predicted conditions that will be countered with resources available during the planning cycle. It identifies the specific forces, functional support, and required resources necessary to execute the plan. It further provides closure estimates for the movement of forces and materiel into the theater. Often OPLANs require coordination with allies and other friendly nations, especially concerning HNS needed to support execution of the plan. The Director for Plans and Policy on the combatant commanders staff (J5) is responsible for deliberate planning. Figure III-1 compares CAP and deliberate planning.

	CRISIS ACTION PLANNING	DELIBERATE PLANNING
Time available to plan	Hours or days	18-24 months
Full Joint Planning and Execution Community involvement	For security reasons, possibly very limited using close-hold procedures	JPEC participates fully
Phases	6 Phases from situation development to execution	5 phases from initiation to supporting plans
Document assigning task	Warning order to CINC; CINC assigns tasks with evaluation request message	Joint Strategic Capabilities Plan to CINC; CINC assigns tasks with planning or other written directive
Forces for Planning	Allocated in the Warning, Planning, Alert, or Execute order	Apportioned in JSCP
Early planning guidance to staff	Warning order from CJCS; CINC's evaluation request	Planning Directive issued by CINC after planning guidance step of concept development phase
Commander's estimate	Communicates recommendations of CINC to the CJCS-NCA	Communicates the CINC's decision to staff and subordinate commanders
Course of action selection	NCA decides COA	CINC decides COA with review by CJCS
Execution Document	Execute order	When an operation plan is implemented, it is converted to an OPORD, and executed with an Execute order
Products	Campaign Plan (if reqd) with supporting OPORDs or OPORD with supporting OPORDs	OPLAN or CONPLAN with supporting plan

Figure III-1. Comparing Crisis Action Planning with Deliberate Planning

b. Crisis action planning is a six-phased process that parallels the deliberate planning process but is a more flexible, time-compressed system that responds to the demands of changing events. The process allows for: rapid flow of information, timely preparation of an executable COA, and communications between the NCA and the combatant commander. In CAP, there is less distinction between planning phases and execution. The Director of Operations (J3) on the supported CINC's staff is responsible for CAP. During CAP, there are windows of opportunity where critical decisions must be made, i.e., balancing and synchronizing combat force requirements versus port opening package needs. The vignette below illustrates window of opportunity considerations.

"WINDOW OF OPPORTUNITY"

Crisis action planning is conducted in six phases. At the end of these six phases, there is a period of time - a "Window of Opportunity" - in which the commander must make crucial decisions on deployment. The window of opportunity is important because it represents the transition period between planning and execution . . . The decisions made will set the tone for the remainder of the operation. Many of the decisions are irretrievable, or at least very hard to change. Others can be changed or refined later.

Center for Army Lessons Learned

Newsletter No. 94

Strategic Deployment and Force Projection

4. Service Supporting Documents. Combatant commander war planning documents contain the preponderance of JRSOI capabilities. However, key Service documents contribute to deliberate planning, thus supporting the JSCP. These Service documents help confirm availability of forces and resources for performing JRSOI. The availability of personnel, equipment, and materiel for JRSOI provides planners critical information about: how much strategic lift can be accommodated, port capacity limitations, and transportation feasibility. The overall feasibility of the combatant commander's plan greatly depends on reception and staging of forces, efficient onward movement,

and integration of forces into the operation. Service documents supporting JRSOI planning are shown in Figure III-2.

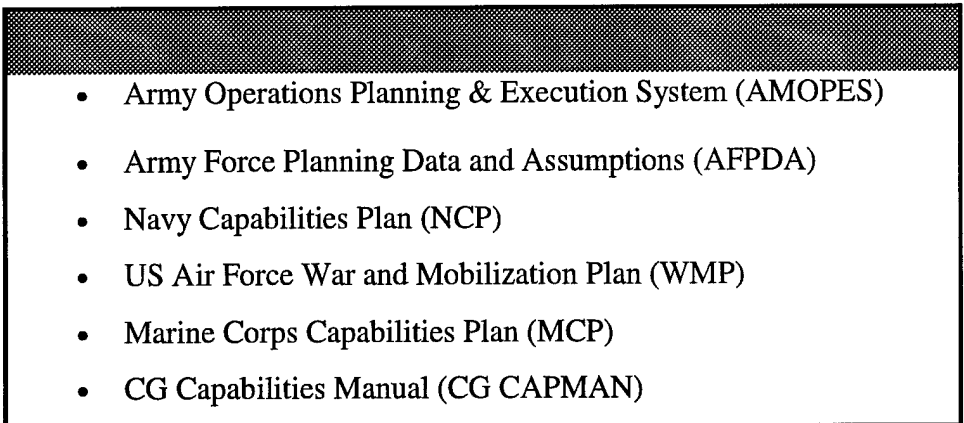
- 
- Army Operations Planning & Execution System (AMOPES)
 - Army Force Planning Data and Assumptions (AFPDA)
 - Navy Capabilities Plan (NCP)
 - US Air Force War and Mobilization Plan (WMP)
 - Marine Corps Capabilities Plan (MCP)
 - CG Capabilities Manual (CG CAPMAN)

Figure III-2. Key Service Documents for JRSOI Planning

5. Joint Intelligence Preparation of the Battlespace (JIPB). There are several key factors that must be considered when planning JRSOI as part of the overall OPLAN or OPORD. Factors include: Joint intelligence preparation, mission analysis, and sources of logistics support. JRSOI planning and execution is guided by JIPB. Planners must assess the impact of the operational environment and threat in relationship to the JRSOI mission. The JIPB must address whether and to what degree a potential threat can interdict, disrupt, or block JRSOI operations; and must determine what infrastructure and other support assets are available to support JRSOI operations.

a. Threat Assessment. Threat assessment is the first step in understanding the operational risk to JRSOI operations and developing risk controls to mitigate the perceived threat. The JIPB process assists the combatant commander in formulating planning guidance by identifying significant enemy capabilities and likely enemy COAs. Based on the assessed threat, the combatant commander must determine where to accept risks, where to focus protection efforts, and how much of the force should be initially devoted to force protection. The threat assessment should include threats to:

- PODs.
- Pre-positioned equipment facilities.

- Staging areas.
- Movement routes and en route support facilities.
- Assembly areas.
- Other nodes deemed critical for successfully executing JRSOI.

b. Infrastructure Assessment. Understanding the capabilities of the theater infrastructure and the time when assets become available is essential to developing a successful JRSOI operation. An infrastructure assessment is key to understanding the capabilities and limitations of the AOR as well as the JOA to support JRSOI operations. It serves as a basis to determine the forces, equipment, and materiel that must be deployed; as well as facility upgrades required to enhance operations. Theater infrastructure consists of two general categories-organizational capabilities of the theater (e.g. military units, HN support etc.); and the physical capabilities of the theater (e.g. ports, roads, facilities, and land for staging areas, etc.).

- **Organizational Infrastructure.** The combatant commander has various sources available to provide JRSOI organizational infrastructure. The relative mix may vary according to the operation and includes: forward deployed forces, pre-positioned stocks ashore/afloat, deploying JRSOI support organizations, HN/coalition and allied support, and contractors.
- **Physical Infrastructure.** Physical infrastructure is characterized by facilities, transportation networks, real estate, modes of transportation, and support equipment that operate over the infrastructure. Transportation infrastructure strongly influences JRSOI. A robust infrastructure of modern air and seaports, highways, railroads, and inland waterways greatly expedites the throughput of forces, equipment, and supplies. A lesser-developed or austere infrastructure impedes the JRSOI and may require an early deployment of support capabilities such as port opening or engineer units. Figure III-3 depicts examples of the physical infrastructure.

<u>INFRASTRUCTURE</u>	<u>RESOURCES</u>
• Airports • Seaports • Highways • Railroads • Bridges • Tunnels • Terminals	• Aircraft • Ships • Trucks • Rail Equipment • Lighterage • Pipelines • MHE/CHE

Figure III-3. Examples of Physical Infrastructure

c. Information Sources. Receiving detailed information concerning infrastructure and transportation plays a key role for planning JRSOI. Multiple sources for collecting and maintaining infrastructure data include the Defense Intelligence Agency (DIA), USTRANSCOM's Joint Intelligence Center (JICTRANS), Service organic intelligence services, etc. This data includes information on transportation and engineering capability (ports, railroads, inland waterways, roads, airfields, bridges, off-road land tractability, power plants, communications nodes, etc.). The characteristics of roads, ports, and rail lines within the JOA are currently available in digital form. Such information should serve as baseline data, replicated on total asset visibility (TAV) systems in map and infrastructure data forms. The Military Traffic Management Command Transportation Engineering Agency (MTMCTEA) compiles unclassified and classified data on many seaports, to include throughput calculations and infrastructure assessments. MTMCTEA also develops and maintains detailed transportation infrastructure networks of various theater JOAs for use in analyzing theater transportation capabilities such as the emerging Enhanced Logistics Intratheater Support Tool (ELIST). Information defense intelligence services also collect and maintain infrastructure data for various regions of the world.

6. Mission Analysis and Assignment of Tasks. Mission analysis determines the requirements for joint force employment to achieve the military objectives. The deployment concept to support employment of the joint force is initially outlined during COAs. Figure III-4 depicts elements of the JRSOI planning process; and subsequent paragraphs explain several planning considerations that can impact on the JRSOI concept to support joint force operations.

Mission Planning in JRSOI

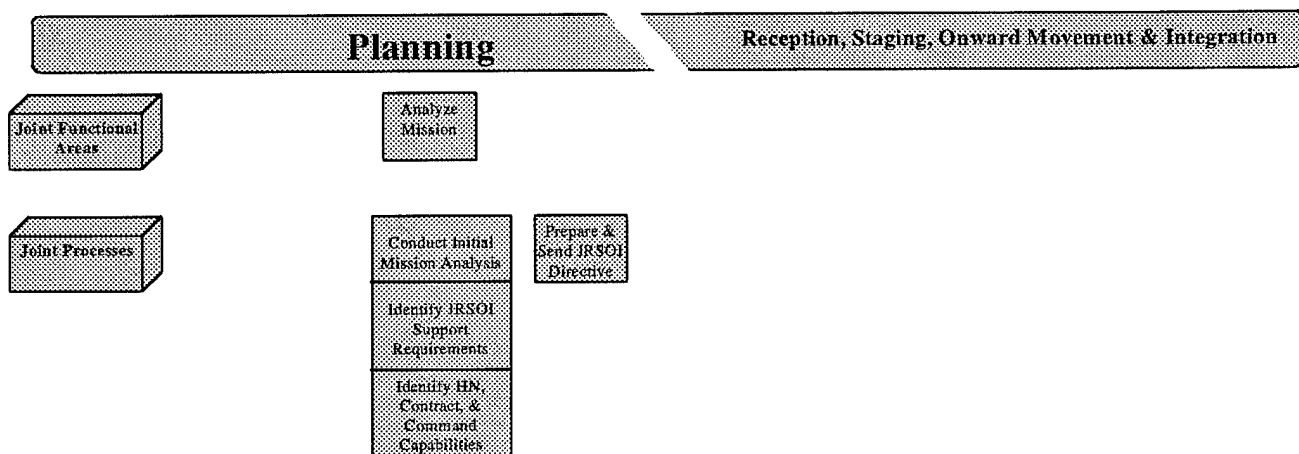


Figure III-4. Mission Planning in JRSOI

a. Once the supported combatant commander receives a tasking to develop a plan, he conducts a mission analysis. Part of mission analysis is force planning. Force planning is based on CINC(s) and Service(s) guidance and doctrine. Force planning determines what forces are needed to

accomplish the mission and where they will be employed. Once this information is known, the planner can use the backward planning sequence to determine how to get the forces where needed. This backward planning sequence is useful in developing support requirements for JRSOI and design of the theater LOC. Essential to force planning are tailoring and task organizing those forces necessary to accomplish JRSOI. This planning and force designing process helps develop the theater LOC structure by:

- Designing the theater LOC.
- Determining locations of air and sea PODs.
- Evaluating throughput capability of the PODs.
- Estimating theater distribution capability required to move deploying forces forward.
- Identifying location of marshaling areas, staging areas, convoy support centers, and other supporting LOC nodes.

b. The combatant commander determines whether the JOA is adequate for employment of assets, forces, facilities, and supporting systems. In cases where the geographic area is inadequate, options available to the combatant commander include: increasing the JRSOI infrastructure, reducing the deployment flow, or extending allowable force closure times.

c. The combatant commander manages the JRSOI process by applying the necessary C2 to ensure unity of command and establishing a seamless flow of information to enhance the building of combat power. In a mature theater, he must balance the demands for deployment of approved joint follow-on forces with the demands of sustainment flows for the engaged force. In a contingency theater, focus is on building the necessary force capability while simultaneously building the necessary physical infrastructure.

7. Sources of Logistics Support

a. Host-Nation Support. When available, HNS successfully assists in executing JRSOI. Host nation support is civil and/or military assistance rendered by a nation to foreign forces within its

territory during peacetime, crisis, or war based on bilateral agreements between nations. HN capabilities should be assessed and validated as early on in the deployment process as possible. Combatant command representatives should reach agreements with HN officials before the onset of a crisis. HNS can reduce the need for early arriving forces and materiel (including pre-positioned equipment) to support JRSOI, shrink strategic lift requirements necessary to deploy required resources, and can minimize the logistics footprint in-theater. Typical items that the combatant commander should negotiate with the HN are shown in Figure III-5.

HOST NATION CONSIDERATIONS

- Basing Rights
- Transit Authority (Land, Sea, Air)
- Border/Diplomatic Clearance Procedures
- POD Services
- Life Support
- Medical Facilities and Services
- Construction and Engineering
- Transportation Assets and Infrastructure
- Labor Force

FIGURE III-5 Host Nation Considerations

b. Contract Support. To optimize contractor support among Services, a central contracting authority (CCA) should be designated. The goal of the CCA is to achieve and maintain controls. The CCA usually is located in the civil military operations center (CMOC). In the context of JRSOI, contract support is the use of foreign or US civilian personnel and/or equipment to perform a function, such as offloading vessels or transporting supplies forward. Using contractor personnel allows US military personnel and equipment to directly support combat operations.

Military Traffic Management Command (MTMC) and Military Sealift Command (MSC), for example, routinely use civilian contractors to augment their operations. Whenever possible, contractors should be used; however, wartime exclusion clauses may prevent contractor personnel from delivering goods and services. Therefore, there should be redundant sources of supply and services.

The shape of conflict is changing, too. It may be waged with little or no allied backing, and with unknown host-nation support or infrastructure. Any fighting that we do will probably occur where we are not, distant to our borders, and in a land that cannot adequately receive our ships and planes.

LTC Scott Conrad

Moving the Force: Desert Storm and Beyond

c. Civil Augmentation Program (CAP). CAPs are separate military department contracting options most often used when HNS is insufficient or unavailable. They employ pre-existing contracts with US and other vendors to provide support in many areas including facilities, supplies, services, maintenance, transportation, etc. The goals of CAP programs are to:

- Plan during peacetime for the effective use of contractor support in a contingency or crisis.
- Leverage global/regional corporate resources as facility and logistics force multipliers.
- Provide an alternative augmentation capability to meet facility and logistics services shortfalls.
- Provide a quick reaction to contingency or crisis requirements.

The Army, Navy, and Air Force each have separate CAP programs. The Army's is the Logistics Civil Augmentation Program (LOGCAP), the Navy's is the Emergency CONstruction CAPabilities (CONCAP), and the Air Force's is the Contract Augmentation Program (AFCAP). The following vignette illustrates the benefits of CAP in support of a major operation.

Contracting--Operation Joint Endeavor

Supporting operations in the Balkans for Operation Joint Endeavor would have required a much more robust combat support and combat service support military organization had it not been for the use of LOGCAP...LOGCAP has provided much of the critical logistics and engineering services, with costs exceeding \$460 million for the first year's effort. Use of LOGCAP allowed the deployed combat units to focus on critical operational missions and the deployed engineering units to focus on horizontal construction.

On 26 November 1995, Brown & Root (the LOGCAP contractor) was activated to provide an intermediate staging base at Kasposvar and Taszar, Hungary...The initial work focused on renovating old communist barracks to bring them to minimum standards for use by US soldiers. Then working with the soldiers, the contract's staff braved the same harsh weather and site conditions to provide warm tents, hot food, and adequate sanitary facilities during the start-up of operations throughout the theater.

After establishing the intermediate staging base, the contractor was tasked to support the 1st Armored Division's Task Force Eagle by setting up and operating camps in Croatia and Bosnia...In order to complete all the Bosnia camps by March 1996, Brown & Root was integrated with Army engineer units, Navy Seabees, and Air Force Red Horse engineers on a fast-tracked scenario. Specifically, Brown & Root's tasks were to--

- Setup 12 camps
- Provide flooring materials for the Army, Navy, and Air Force engineer units charged with setting up all other camps.
- Upgrade camps to meet the Army's sustaining base standards, replacing soft-side, canvas tents with hardback tents or modular buildings (in areas with the harshest conditions).
- Provide all basic life-support services, such as food services, laundry, water delivery, garbage collection, and shower and sanitary facilities.
- Provide other logistics services such as transportation and cargo handling, vehicle maintenance and washing, port operations, road repair and maintenance, and storage yards.

Lieutenant Colonel Nicholas J. Kolar, Jr.

LOGCAP: Providing Vital Services to Soldiers

The Engineer Professional Bulletin, March 1997

d. Cross-Service Logistics. Cross-Service logistics is one US military Service providing dedicated logistics support to another. If one Service has the preponderance of a particular skill, commodity, or class of supply in theater, such as fuel, ground transportation, construction engineering, etc., it may be tasked to provide support to other Services operating in that theater. Employing cross-Service logistics helps eliminate CS and CSS redundancies among the Services.

8. Time-Phased Force and Deployment Data. The TPFDD is the computer-supported database portion of an OPLAN. It contains time-phased data for moving personnel, equipment, and materiel into a theater. The TPFDD reflects strategic lift and selects intra-theater lift to ensure that the full scope of JRSOI requirements is identified and satisfied. It contains information relating to sourcing of forces and sustainment requiring common-user lift and scheduling for movement by USTRANSCOM (for strategic lift) and the combatant commander (for select intra-theater lift). It also includes data for in-place forces, self-deploying air and water craft, and unsourced forces and sustainment. The forces in the TPFDD file include assigned augmentation and supporting forces to be deployed to and stationed in the JOA. The TPFDD is an important tool for accomplishing force closure. Therefore, it is essential that the TPFDD be as comprehensive and accurate as possible. Mistakes in the TPFDD can affect the deployment process to the point where major transportation problems can occur within the theater LOCs.

Time-Phased Force and Deployment Data

The computer-supported data base portion of an operation plan which contains time-phased force data, nonunit-related cargo and personnel data, and movement data for the operation plan. These include:

- in-place units
- units to be deployed
- routing of forces and associated movement data
- estimates of sustainment and personnel that must move concurrently
- estimate of movement requirements that must be transported

CJCSI 3110.11C

2 Jan 1998

1
2 **a.** After carefully weighing advantages and disadvantages, performing risk assessment, and
3 considering mission requirements, planners can create an appropriate TPFDD that accomplishes
4 the mission and enhances JRSOI. Normally, OPLANs developed through the deliberate planning
5 process (as well as some plans developed through CAP) will include a TPFDD database. TPFDD
6 development prioritizes the arrival of forces and sustainment in theater necessary for mission
7 accomplishment. Development is based on three primary processes: force planning, support
8 planning, and transportation planning; therefore, the TPFDD serves as both a force requirements
9 document and a prioritized transportation movements document.

10
11 **b.** During execution planning, the supported combatant commander normally publishes a TPFDD
12 letter of instruction (LOI) with planning guidance, procedures, and coordinating instructions for
13 use during planning the joint force deployment operation. The TPFDD LOI provides planning and
14 execution instructions to the supported combatant command's components, supporting combatant
15 commands, and supporting agencies as they refine, verify, and manifest their portion of the joint
16 force TPFDD. The intent of the supported combatant commander's TPFDD LOI is to eliminate
17 confusion, facilitate parallel planning, and expedite TPFDD refinement by providing component
18 commands, supporting commands, and agencies a single set of instructions for TPFDD input and
19 management. Prudent use of the TPFDD LOI ensures actual OPORD movement requirements are
20 properly documented and validated for transportation scheduling.

21
22 **c.** USTRANSCOM's J5 conducts three TPFDD refinement conferences (forces, sustainment, and
23 transportation) to refine the TPFDD databases. They are attended by CINC staff, components,
24 sourcing agencies, and USTRANSCOM with its transportation component commands (TCC).
25 USTRANSCOM TCCs are MTMC, MSC, and Air Mobility Command (AMC). Scheduling
26 deploying personnel, equipment, materiel, and follow-on sustainment is a critical component of
27 TPFDD development. The sequence of units is determined by the supported CINC with assistance
28 of USTRANSCOM and based on CINC guidance and available strategic lift resources. It should
29 also be balanced against the assessed throughput capacity of the theater. Figure III-6 depicts
30 elements of TPFDD planning.

TPFDD Planning In JRSOI

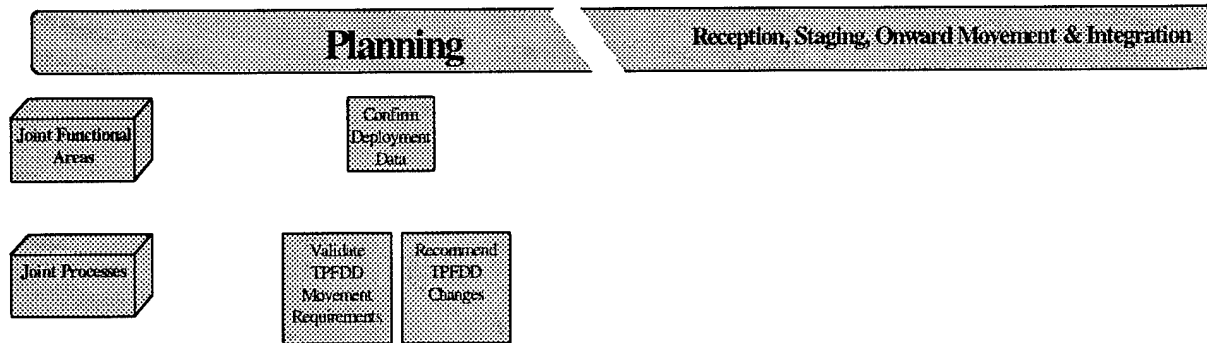


Figure III-6. TPFDD Planning in JRSOI

d. As TPFDDs are being developed, supported combatant commanders, their staffs, and the components determine what forces they want to deploy to what locations, and in what order. As a supporting CINC, USTRANSCOM provides transportation feasibility analysis with the supported CINC. Transportation feasibility determination requires parallel and concurrent analysis and assessment by the supported CINC and USTRANSCOM of :

- Available strategic and theater lift assets.
- Transportation infrastructure.

- Competing demands of allies.

e. Dependable transportation feasibility analysis relies on accurate analysis of JOA transportability and JRSOI capability. Port throughput data should consider not only port offload capability, but also the theater's ability to move and sustain forces away from the port. Matching the strategic TPFDD flow to the theater's reception, staging, and onward movement capability should prevent port saturation and backlogs that slow the build-up of mission capability.

Transportation Feasibility

OPLAN(s)/CONPLAN(s) are considered transportation feasible when the capability to move forces, equipment, and supplies exists from the point of origin to final destination according to the plan. Transportation feasibility determination will require concurrent analysis and assessment of available strategic and theater lift assets, transportation infrastructure, and competing demands, and restrictions:

- the supported CINC will analyze deployment; reception, staging, onward movement, and integration; and theater distribution of forces, equipment, and supplies to final destination.

- supporting CINCs will provide assessment on movement of forces from point of origin to air and sea ports of embarkation.

- CINCTRANS will assess the strategic leg of the TPFDD for transportation feasibility, indicating to the CJCS and supported CINC that movements arrive at POB consistent with the supported CINC's assessment of JRSOI and theater distribution.

- following analysis of all inputs, the supported CINC is responsible for declaring a plan end-to-end executable.

CJCSI 3110.11C

Mobility Supplement to the FY 98 JSCP

2 Jan 1998

f. While theater infrastructure is studied during the concept development phase, before the TPFDD is developed, this is no substitute for a feasibility study of the flow of the TPFDD through the

theater. Intra-theater feasibility may significantly impact on port-to-port flow, in that it may show required changes to the use and sequence of strategic lift. It could also reveal whether the number, type, and sequence of units providing JRSOI are adequate to deliver planned capabilities to the CINC.

9. JRSOI Planning Requirements and Considerations.

a. During deployment planning, all of the requirements to support JRSOI activities need to be addressed. These requirements can be broken down into two broad categories: operational and support. Operational requirements include force protection, TAV, and C2. Support requirements include transportation, infrastructure, HNS, sustainment, and land management. JRSOI requirements should appear in all planning documents and OPLANs. The planner must demonstrate to the approving authority that an early investment of strategic lift for logistics enablers will actually increase the flow of combat forces into the theater.

b. Loading Considerations for Deployment. Planning deployments is based primarily on the commander's concept of the operations for employment. These factors determine the entry operations, deployment concept, and mobility options required to posture a joint force in the JOA. An important consideration in posturing forces is to determine how deploying forces should be configured when they arrive in theater. This determines how deploying forces should be loaded for deployment. The manner that units are loaded is an important factor in determining JRSOI reception requirements as well as the amount of time units must be supported at the reception and staging areas. Three loading methods are described below:

- **Combat loading** is the arrangement of personnel and stowage of equipment and supplies in a manner designed to conform to the anticipated tactical operations of the organization embarked. Each individual item is stowed so that it can be unloaded at the required time. Combat loading is desirable when deploying units must be integrated into the force quickly but is significantly less efficient than unit or administrative

loading in utilizing strategic lift. In cases where strategic lift is constrained, greater use of combat load may result in delay in force closure.

- **Unit loading** is the loading of units with their equipment and supplies in the same vessel, aircraft, or land vehicles. This method more efficiently utilizes strategic lift and maintains unit integrity better than administrative loading.
- **Administrative Loading** is a loading system that gives primary consideration to achieving maximum utilization of troop and cargo space without regard to tactical considerations. Equipment and supplies must be unloaded and sorted before they can be used.

c. Planning Considerations. Shown below are typical planning considerations that impact on what method of loading is best for a particular operation.

Planning Considerations

- Location and capabilities of PODs
- Level of cooperation expected from host nation
- Amount of host nation support required
- Is the "state" intact, or will the operation be in a "failed state?"
- Type of environment (desert, jungle arctic, etc.)
- Threat
- Time expected between arrival and commencement of operations

10. Automated support planning tools. Automated support planning tools assist combatant command planners to monitor, plan, and execute mobilization, deployment, employment, and redeployment of US forces. The enhanced C2 inherent in the use of these advanced planning and execution tools provides the commander readiness, deployment, tracking, intelligence, theater movement, and employment details critical to effective JRSOI.

a. Joint Operational Planning Tools. Joint operational planning is accomplished using JOPES. JOPES is resident on the Global Command and Control System (GCCS). It provides the

capability to develop the TPFDD and, along with the Global Transportation Network (GTN) and JTAV, to monitor its execution. Software and hardware improvements, such as seen in GCCS allow commanders to more rapidly and accurately share vital information during planning and execution of joint operations. It encompasses a myriad of enablers to assist in planning, directing, and managing logistics operations. See Chapter IX for more details.

b. Theater Campaign Analysis Tools. Selecting which units will deploy and scheduling movements are accomplished using such tools as Analysis of Mobility Platform (AMP) and Joint Flow and Analysis System for Transportation (JFAST). Some examples of existing tools capable of theater analysis are ELIST, Scenario Unrestricted Mobility Model for Intratheater Simulation (SUMMITS), Base Resource and Capability Estimator (BRACE), Integrated Computerized Deployment Systems (ICODES), Port Simulation (PORTSIM), and NATO Allied Command Europe Deployment and Movement System (ADAMS). See Chapter 9 and Appendix D for additional details on deployment support tools.

Deployment Planning Tools

High Level Planning Tools

Joint Operation and Planning System (JOPES)

Analysis of Mobility Platform (AMP)

Joint Flow and Analysis System for Transportation (JFAST)

Theater LOC Development Planning Tools

Enhanced Logistics Intra-Theater Support Tool (ELIST)

Scenario Unrestricted Mobility Model for Intra-Theater Simulation (SUMMITS)

Port Simulation (PORTSIM)

Node Planning Tools

Base Resource and Capability Estimator (BRACE)

Integrated Computerized Deployment System (ICODES)

**Transportation Coordinator-Automated Information for Movement System (TC-AIMS II)
Automated Air Load Planning System (AALPS)**

Some General Planning Considerations include:

How will forces be protected during JRSOI?

How does the combatant commander intend to exercise his statutory "directive authority for logistics?"

How should the theater LOC be designed?

What capability exists in theater to conduct effective JRSOI?

What capability needs to be deployed for JRSOI?

Can the host nation perform any theater LOC functions or must US capabilities be deployed?

What functions may be performed by contractors (LOGCAP, CONCAP, AFCAP)?

How will deploying forces be sustained while conducting JRSOI?

Have necessary transit agreements been negotiated?

Are status of forces agreements (SOFA) adequate?

What kind of ACSAs should be negotiated?

Priority in Planning

The issue is educating users and following doctrine. In JOINT ENDEAVOR, controversy over aerial port management and airlift staging/support requirements resulted in the theater command not providing the personnel needed for the Airlift Control Center (ALCC) to effectively coordinate with DIRMObFOR and AME. Consequently, AME struggled to perform the missions. The DIRMObFOR was assigned to Vincenza, Italy, isolated from the theater command in Stuttgart, Germany. This compounded coordination problems and hampered the interface between theater and strategic airlift. Army commanders, in their rush to put forces on the ground, consistently pushed tactical vehicles and personnel ahead of airfield operations equipment and operators resulting in a 3-5 day delay of airflow into the theater. Additionally, Army cargo was not moved off the airfield in a timely manner at Taszar and Tuzla, and encampments were built on valuable staging and airfield parking areas.

1
2
3

**SOURCE: General Walter Kross, Single Port Management
Joint Force Quarterly, Winter 1996-97**

CHAPTER IV EXECUTION

"JOPES (ADP) was the single tool which enabled this command to oversee and coordinate the movement in record time of over 400,000 personnel and six million tons of cargo."

General H. Norman Schwarzkopf

1. General. This chapter describes in general the support structure (organizations, processes, systems, and infrastructure) needed to execute JRSOI operations. The JRSOI support structure must be responsive to the CINC and his priorities. METT-T influenced changes may cause certain units to be in high demand or necessary for immediate employment. JRSOI support organizations must be able to locate these units and coordinate their onward movement. Critical resources such as heavy equipment transporters, fuel support, and ground transportation to move personnel may require diversion.. Communications is the key to managing this type of complex, ever-changing support environment. Operationally, JRSOI impacts on the forces available to the combatant commander, rate of operational build-up (planned capabilities), rate of onward movement, size of force, etc.

The Army service component commander (ASCC) may provide the transportation and movement control for JRSOI. He requires familiarity with the transportation and movement control requirements of the other Services to adequately plan for their needed resources. Additional considerations include WEAR within the theater.

2. Managing the Flow. Movement control requires analyzing requirements, capabilities, shortfalls, alternatives, and enhancements to satisfy the operational commanders' requirements. One of the biggest challenges of movement control is rapidly adjusting to changes in battlefield conditions and commander's priorities. Efficient movement control enables the commander to redirect forces and rapidly overcome disruptions in the LOC. JOPES provides the combatant commander with the capability to change or delete requirements during main force deployment.

1 **a.** The joint movement center (JMC) handles the development of the combatant command's
2 theater movement plan. The unit movement plan is of great use in the planning process, but it
3 must be continually updated. Primary responsibilities include transportation planning,
4 apportioning, allocating, deconflicting and validating priorities, coordinating movements, and
5 maintaining in-transit visibility (ITV).

6
7 **b.** Joint Pub 4-01.3 states that the combatant commander has a wide range of options for
8 performing movement control. He may direct subordinate commanders and Service components
9 to perform their own movement control. He may also establish a theater joint transportation
10 board (JTB), a JMC, or both. To ensure a fully integrated and responsive transportation system,
11 the commander may consider assigning responsibility for coordinating theater transportation
12 movement to a single joint office.

13
14 **3. Organization for Movement Control.** The combatant command logistics staff usually forms
15 the nucleus of a movement control organization. The JMC, augmented by Service movement
16 control elements, assumes directive action for theater movements and for execution of the theater
17 movement plan. The JMC relays the priorities to the Service movement control agencies. They
18 would then execute the priorities using the mode tasking authority delegated by the combatant
19 commander. The Services establish a movement control architecture to: 1) exercise control of
20 the movement of units; 2) provide ITV; and 3) provide force tracking information to the JMC.
21 Figure IV-1 depicts joint movement control architecture.

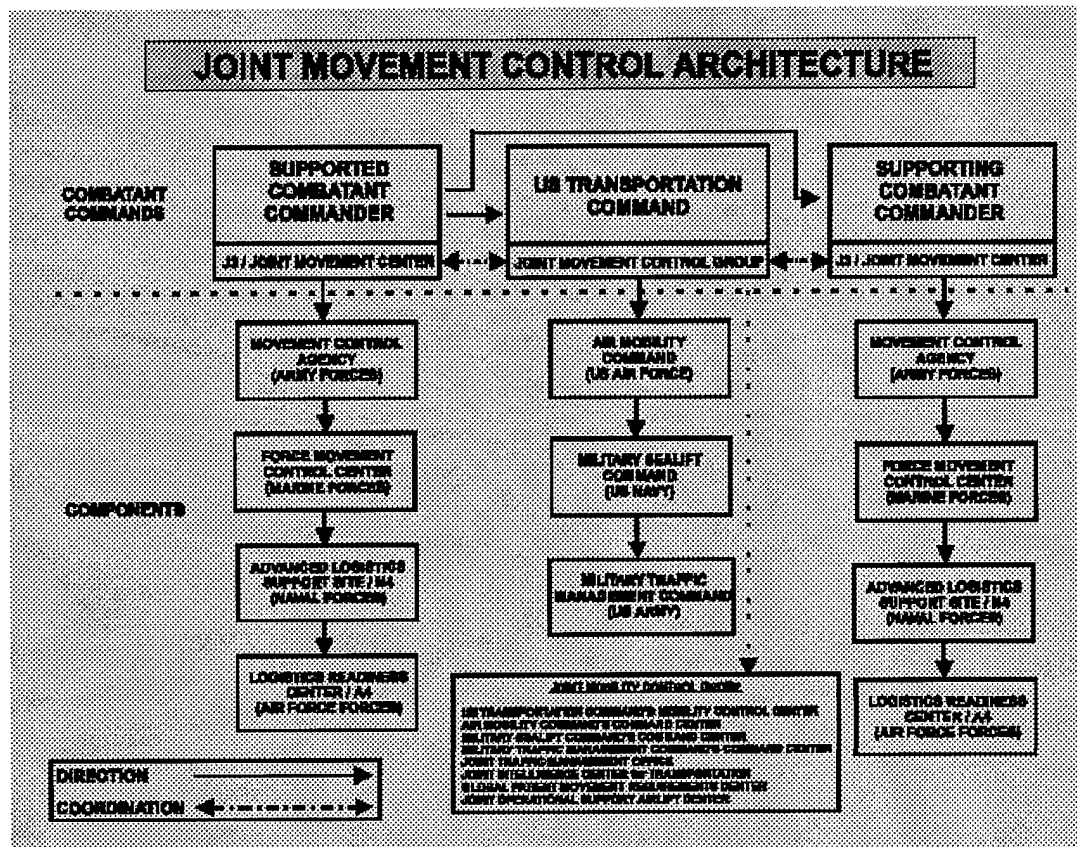


Figure IV-1. Joint Movement Control Architecture

a. Theater airlift will be centralized under the combatant commander. The joint forces air component commander (JFACC) executes missions through the joint air operations center (JAOC). Within the JAOC, theater airlift will be controlled by the air mobility division (AMD), which is a component of the air operations center (AOC) and responds to Director of Mobility Forces (DIRMOBFOR) direction. The DIRMOBFOR is responsible for integrating the total air mobility effort for the JFACC, and serves as the designated coordinating authority for air mobility with all commands/agencies both internal and external to the JTF. The DIRMOBFOR provides direction to the AMD, which plans, coordinates, tasks, and executes the air mobility mission. Within the JAOC, an airlift control team (ALCT) plans, coordinates, manages, and executes theater airlift operations.

Director of Mobility Forces

DIRMOBFOR participation in airlift operations is essential for successful mission accomplishment. The DIRMOBFOR is the theater's contingency air flow master for C-130s and strategic lift and a senior officer with vast airlift experience...The DIRMOBFOR is responsible to the supported CINC and Air Force component commander for effective theater common-use air mobility management.

JP 4-01, Joint Doctrine for the Defense Transportation System, 17 Jun 97

b. The ALCT coordinates with the following organizations/elements to conduct theater airlift operations:

- The joint movement control group (JMCG), formed by elements of USTRANSCOM and its TCCs serve as the focal point to orchestrate and optimize Defense Transportation System (DTS) operations in support of unified commanders and other customers. The JMCG is linked to an array of command, control, communications, and computer systems to manage total movement requirements and exercise C2 of assigned forces.
- The JMC receives validated component theater airlift requests and priorities.
- The air mobility element (AME) deploys to the theater as an extension of AMC's Tanker Airlift Control Center (TACC). It provides the coordination and interface between the strategic air mobility system and the theater air logistics system.

Figure IV-2 provides a sample command relationship for air mobility forces.

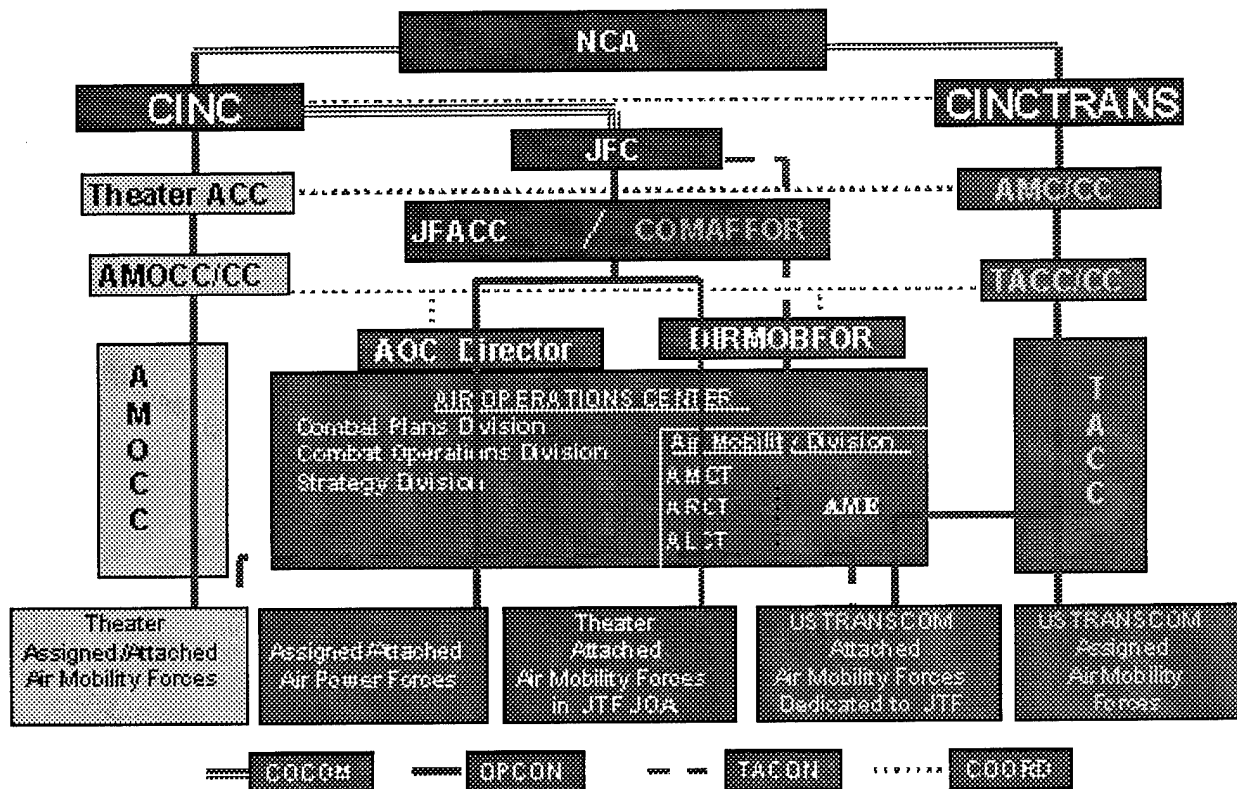


Figure IV-2. Sample Command Relationships for Air Mobility Forces

c. Arrival and departure airfield operations are generally conducted by a tanker airlift control element (TALCE) or an element performing TALCE functions. TALCEs are mobile C2 units deployed to support strategic and theater air mobility operations. These elements are tailored to provide C2 and manage aerial ports, weather monitoring and reporting, communications, maintenance, security, transportation, intelligence, and air space. These teams interface with the airlift customer and are responsible for marshaling deploying units and associated equipment for airlift.

d. The TALCE works with an Army or Marine Corps arrival/departure airfield control group (A/DACG), and/or a Naval overseas airfield cargo terminal (NOACT), and deploying units to ensure they are ready for air movement. Typical airlift requirements include:

- Passengers.
- Pallets.
- Rolling Stock.
- Containers.

Each flow requires different transportation, materials handling equipment (MHE), and container handling equipment (CHE). If inbound aircraft are different than anticipated, delays can occur. Failure in communicating ITV data and sending closure reports hampers node clearance and mismanages logistical assets.

4. Service Capabilities for Movement Control. Joint Pub 4-0 authorizes a combatant commander to establish a joint movement control organization. The combatant commander's best alternative is to use existing movement control units of the Services. The Army has a corps movement control battalion (CMCB), a theater transportation battalion (movement control), and a theater movement control agency (TMCA). The Marine Corps has movement control centers planned for all deploying units from the Service component level down to the battalion/squadron level. They are the force movement control center (FMCC), the logistics and movement control center (LMCC), and the unit movement control center (UMCC).

5. Strategic Interface. The integration of strategic and theater movement control systems is the joint responsibility of USTRANSCOM and the supported combatant command. To control the tempo of the operation, the commander must know the location of the force and its capability. ITV is his source of information on future force availability, and force tracking arrays the present force available in its preparation and onward movement. Reporting, collecting, and processing systems and procedures must be established well before onward movement begins. Movement control organizations provide the combatant commander with an information network capable of providing early ITV information to the operators and to assist in force tracking.

1 **6. Theater Infrastructure.** Theater LOCs are established to connect the deploying forces with
2 the points of entry into the JOA. LOCs are comprised of the route segments and nodes within the
3 JOA. The combatant commander designates them in coordination with the HN and
4 USTRANSCOM to support the deployment, employment, and sustainment of forces. LOCs
5 must be evaluated in terms of length, efficiency, and security. LOC operations depend upon
6 existing infrastructure and facilities, and must be coordinated with HN, local authorities, the
7 supporting combatant commands, and allied or civilian organizations that participate in the
8 deployment operation.

9
10 **a.** Within the JOA, certain nodes and links form primary routes identified as main supply routes
11 (MSR). Nodes are locations where a movement requirement is originated, processed for onward
12 movement, or terminated. There are three organizational elements needed to operate the LOC:
13 node operators, mode operators, and movement controllers.

14
15 **Node Operators** operate the nodes of LOCs, performing the tasks necessary to facilitate the
16 flow of supplies and military forces, and may be composed of military and/or civilian personnel.
17 **Mode Operators** operate common-user lift resources (highway, rail, airlift, sealift, inland
18 waterway, and intracoastal transportation) to transport military requirements between nodes, and
19 may be comprised of military and/or civilian personnel.
20 **Movement Controllers** plan, route, schedule, procure transportation services, and control
21 movements through the LOC. Controlling the flow of supplies and military forces between
22 nodes in accordance with priorities established by the supported combatant commander.

23
24 **b.** The overall coordination of movements between the nodes of the LOC using available lift
25 resources is normally exercised by the JMC. The JMC is established by and coordinates
26 movements based on priorities set by the supported combatant commander. The movement
27 control system must balance the capabilities of the nodes and modes with the commanders
28 priorities. To accomplish this, the system must exchange information and give direction. The
29 generic information flow among these organizations is depicted in Figure IV-3 below.

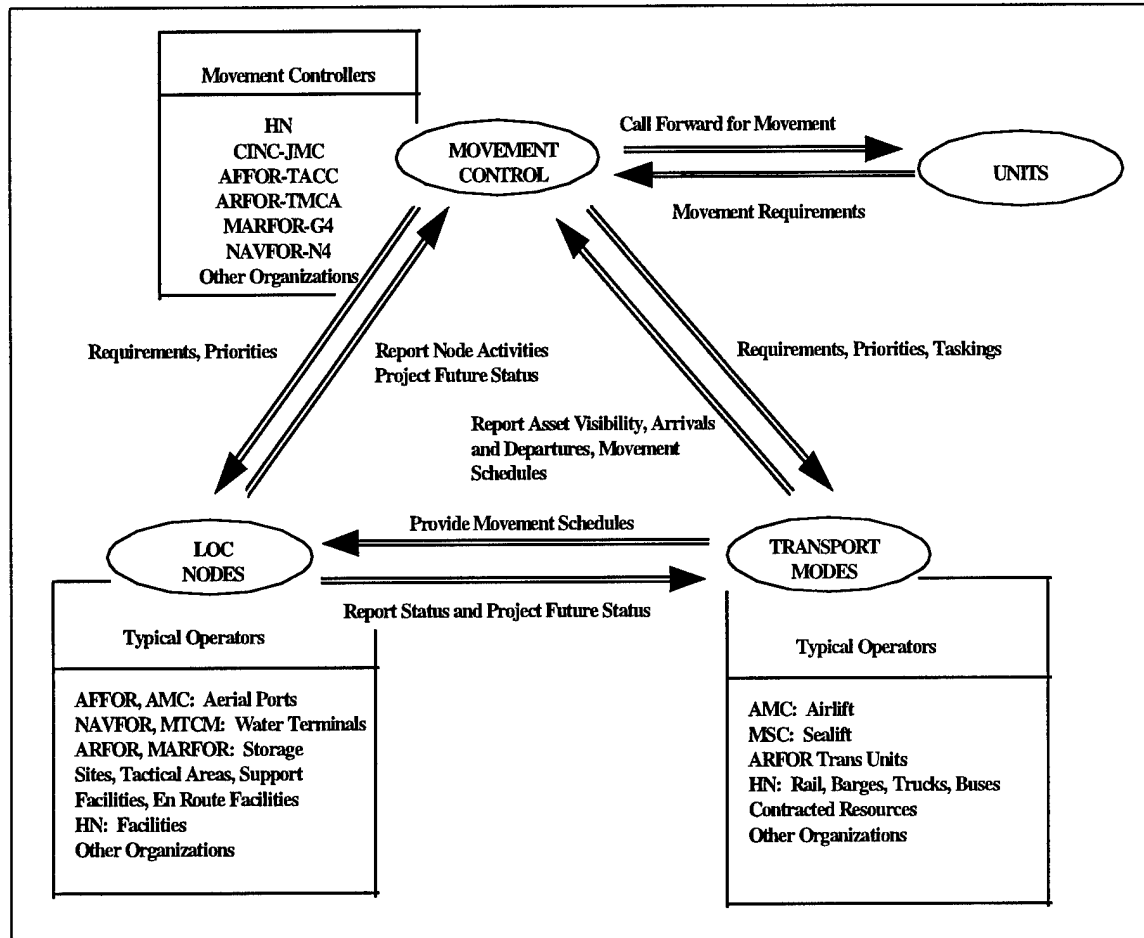


Figure IV-3 Theater Relationships for Movement Operations

c. Theater LOC organizations that operate the nodes and modes include:

- Assigned joint and Service component command elements.
- Elements of USTRANSCOM that will operate the joint and Service air and water terminals in the JOA.
- HN civilian or military organizations.
- Contractor provided services.

- Allied military or civilian organizations.

7. Force Closure is the point in time when a supported commander determines he has sufficient personnel and equipment resources in the assigned area of operations to carry out assigned tasks. (CJCSM 3150.16, *JOPES Reporting Procedures*, 27 Feb 1998) During execution, the deploying force commander reports that he has achieved the levels of readiness prescribed by the JFC and that he is ready to integrate into the higher headquarters. The JFC is concerned with:

- Location of the forces.
- Capability of the forces.
- Projected and actual arrival time at destination.
- Commander's capacity to effect the movement.
- Additional transportation needed (modes, quantities, etc.)

8. Force Tracking. The supported CINC's logisticians support the operational commander in the effective execution of his warfighting mission, providing force tracking type information. Force tracking is the process of gathering and maintaining information on a unit's status (equipment, and personnel) and location during deployment and before integration. Force tracking aids in predicting the unit's arrival time in theater and incremental build of combat power.

COMBAT POWER

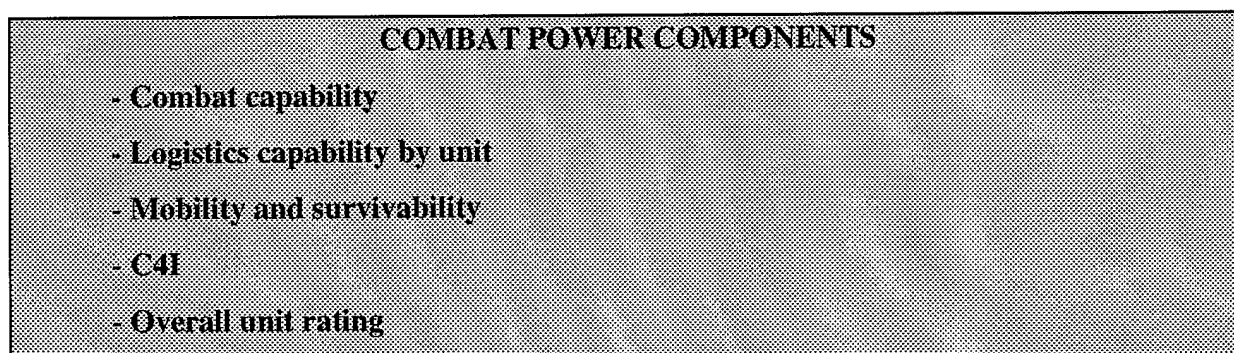
Combat power is a term used in association with mission capability for a unit while personnel and equipment incrementally arrive in theater. When units deploy, the commander retains command, but his ability to control dispersed elements depends on the movement control to manage the flow. Timely and accurate force tracking and ITV information should facilitate the rapid assembly of combat power in theater.

- 1 **a.** Force tracking includes monitoring the elements until they are reassembled, the unit
2 commander reestablishes control of the unit, the unit becomes capable of sustaining itself,
3 performing its assigned mission, and integration into the gaining command has been completed.
4 **b.** A major focus during JRSOI and specifically during staging is building planned capability, an
5 example of which is combat power. Success in building combat power requires:

- 6
7
 - Defining combat capability.
 - 8 • Defining logistic capability and sustainability.
 - 9 • Defining how to track and visualize combat power.
 - 10 • Establishing a glide path for the incremental building of combat power.
 - 11 • Prioritizing and adjusting the glide path as needed.
 - 12 • Managing and supervising the unit's progress.
 - 13 • Developing a complementary tracking system that applies for combat operations as
14 well as JRSOI.

15

16 **9. Components of Combat Power.** The components of building combat power can be divided
17 into several subordinate parts as shown and described above:



26 **a. Combat capability** is derived from the unit's ability to shoot, move, communicate, and
27 sustain; plus force protection, training, personnel/crew status, and C2. Units report their status in
28 the preceding categories. . A color system is used to depict the unit's condition. Green is 90
29 percent or more mission capable, amber is 70-89 percent mission capable, red is 50-69 percent
30 mission capable, and black is 49 percent or less mission capable. **Overall unit rating** equals the

lowest color of subordinate ratings. (EXAMPLE: If a unit is black in logistics capability and green in combat systems, then the overall unit rating is black.) This technique provides commanders a quick reference to determine, "If we fight tonight, what can I bring to the fight?"

b. Logistics capability is based on the unit's status of personnel, maintenance, Class I, III (bulk and package), Class IV, Class V, Class VIII, and CSS systems. Logistics capability has three major subordinate parts:

- Subordinate unit logistics capability and sustainability.
- CSS systems mission capable versus available.
- Direct support (DS) supply status (maintenance, medical, and general supplies).

Logistics capability reporting procedures remain the same as described under combat capability.

c. Mobility and survivability capability is based on the unit's ability to enhance unit TAA locations and movement routes into and out of the TAA; and its capability to conduct mobility and survivability missions as assigned by the JFC.

d. C4I status is a more subjective evaluation and includes consideration of established C2 procedures such as:

- Organic command.
- Operations and intelligence.
- Administration-logistics.
- Fire support connectivity with higher and lower C2 nodes.
- Linkage with unit C2 nodes.
- Retransmit capability.

e. Overall unit rating comes from clearly defined critical areas needed for a system to be mission capable (shoot, move, communicate, sustain, force protection, training, and personnel/crew status, and C2). Unit requirements to build combat power include:

- Interfacing with the theater logistics base.
- Conducting large unit supply operations.
- Constituting CSS units rapidly to support the effort.
- Drawing equipment.
- Training personnel.
- Conducting marshaling activities.

Several elements that make weapons systems combat capable include:

- Trained crews.
- Ammunition.
- Prescribed equipment uploaded according to load plans.
- Ability to move, shoot, and communicate.

CHAPTER V RECEPTION

"Aerial port of debarkation control in joint operations is complex. It requires personnel with special skills, available in sufficient numbers at the earliest opportunity."

**Operation Uphold Democracy
Joint After Action Report**

1. General. This chapter describes reception operations at theater PODs and other reception nodes. Reception is the process of unloading personnel and materiel from strategic or operational transport, marshaling the deploying units, transporting them to staging areas (SA) if required, and providing life support to deploying personnel. When the NCA directs deployment of military forces into a geographical theater, their ultimate success substantially depends on how well the process of receiving that force in-theater is executed. Primary tasks in the reception process include:

Reception Tasks

- **Maintain Unity of Command**
- **Establish Security**
- **Establish Accountability**
- **Maintain Intransit Visibility**
- **Prepare for Staging**
- **Conduct Port Support Activities**

a. The **JRSOI process** begins with the arrival of deploying forces and equipment into an JOA. During strategic deployment, the preponderance of personnel arrive in-theater via strategic airlift and most equipment and materiel arrives by strategic sealift. Exceptions to this rule are time-sensitive equipment such as C2 assets and critical combat capabilities like those provided by attack helicopters. Reception terminates the movement phase of deployment. It is complete

when increments of units (forces and equipment) reunite and relocate to designated areas. Deployment most often is strategic, i.e., intertheater, but can be intratheater. In some cases, intertheater and intratheater airlift will compete for available aerial port of debarkation (APOD) space and services.

Desert Shield Reception

Although personnel were usually flown to the Gulf, most equipment and supplies were sent by sea. Close coordination among the entire transportation network was necessary to ensure that airlifted personnel reached the theater near the date their equipment was scheduled to arrive. Arrival of personnel before their equipment would increase the burden on the Saudi infrastructure. It also would expose troop concentrations in the port areas to possible enemy attack by ballistic missiles, aircraft, and terrorists.

Conduct of the Persian Gulf War

Final Report to Congress

The entire reception process should remain flexible and adaptable as the situation unfolds and priorities change. An effective interface between the phases of **strategic movement to POD** and **reception** is crucial to the overall success of the JRSOI process. The transition to theater responsibility can be facilitated by USTRANSCOM TCCs (MTMC, MSC, AMC) in conjunction with the Services and/or Joint forces operating the air and sea PODs. Although the primary focus of reception is to receive, offload, marshal, and transport deploying forces, the reception process inevitably shifts to receiving sustainment materials, replacement equipment and personnel, to ultimately supporting retrograde operations of in-theater forces. At PODs, these activities may occur simultaneously with two-way traffic into and out of the theater. In all scenarios, detailed planning, force tracking, as well as the principles of movement control, as described in Joint Pub 4-01.3, are essential to the overall success of reception.

Joint Endeavor

As was demonstrated in 1995 during Operation JOINT ENDEAVOR (Bosnia), forces can move from origin to mission site within the same JOA. During operational deployments to a

contingency area located within the same theater as the stationed forces, units may deploy by various combinations of unit convoys, self-deploying aircraft, intra-theater airlift, trucks, rail, barges or intercoastal shipping, and commercial surface transportation. Regardless of the transportation mode utilized during deployment, efficient reception is essential in assisting the debarkation of arriving forces that ultimately leads to the integration and subsequent rapid build up of mission capability.

Joint Reception, Staging, Onward Movement, and Integration (JRSOI) Process Map

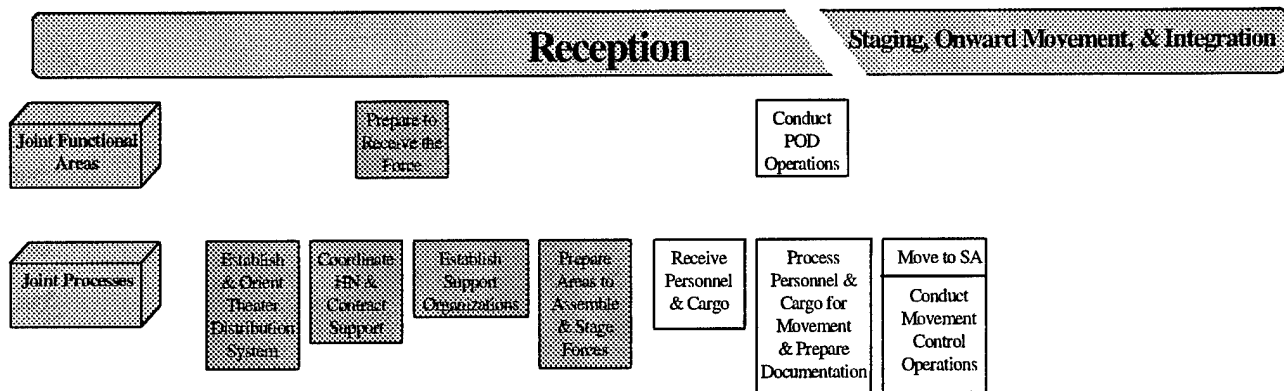


Figure V-1. Reception Process

b. Reception Process.

- **Conduct POD Operations.** The deploying force will arrive in the theater at APODs and seaports of debarkation (SPOD). Reception is the process of expeditiously offloading, marshaling, and transporting equipment, personnel, and materiel to complete the strategic deployment phase to a sea, air, or surface transportation POD. Reception operations at the POD include all those functions necessary to receive and clear unit personnel and equipment through the POD.
 - **Receive Personnel and Cargo.** Personnel and cargo are offloaded at terminals. The support organization analyzes ITV data to determine how and where the arriving personnel and cargo are to be moved to appropriate holding areas. Status reports are provided to higher headquarters. The units are advised of the general situation and may be tasked for personnel to work on various work parties (i.e. drivers for offloading, security, cargo offload, etc.).
 - **Process Personnel and Cargo for Movement and Prepare Documentation.** Personnel and cargo are received and processed for movement. Unit personnel and cargo may move on unit equipment and/or common user transportation. Appropriate documentation is prepared for subsequent movement.
 - **Move to SA:** Unit personnel and cargo will usually move to an SA. In some situations, unit personnel and cargo may move directly to the TAA. If movement is to an SA, preparations begin there for onward movement to the TAA. In certain instances, the POD, SA, and TAA may be collocated.
 - **Conduct Movement Control Operations:** Movement control elements coordinate, monitor, and report movement IAW movement instructions. The movement control system also establishes procedures with HN, commercial contractor, and allied forces on the use of available transportation resources.

2. Reception Nodes. Deploying forces usually arrive at APODs and SPODs. PODs serve as the primary LOC nodes in-theater for strategic deployment from which reception activities, capabilities, and organizations will operate. PODs also serve as intermodal transfer sites. Port clearance is a primary challenge to this process. Reception capacity should, at a minimum, equal strategic lift delivery capabilities. This enables the port to be cleared in an efficient manner. Personnel and equipment arriving by airlift or sealift continue onward movement via rail, highway, or other modes of transportation. In addition to the PODs, several other facilities and areas support the reception process. Figure V-2 depicts an overview of the JRSOI support system. Appendix E describes each of the supporting LOC nodes shown below.

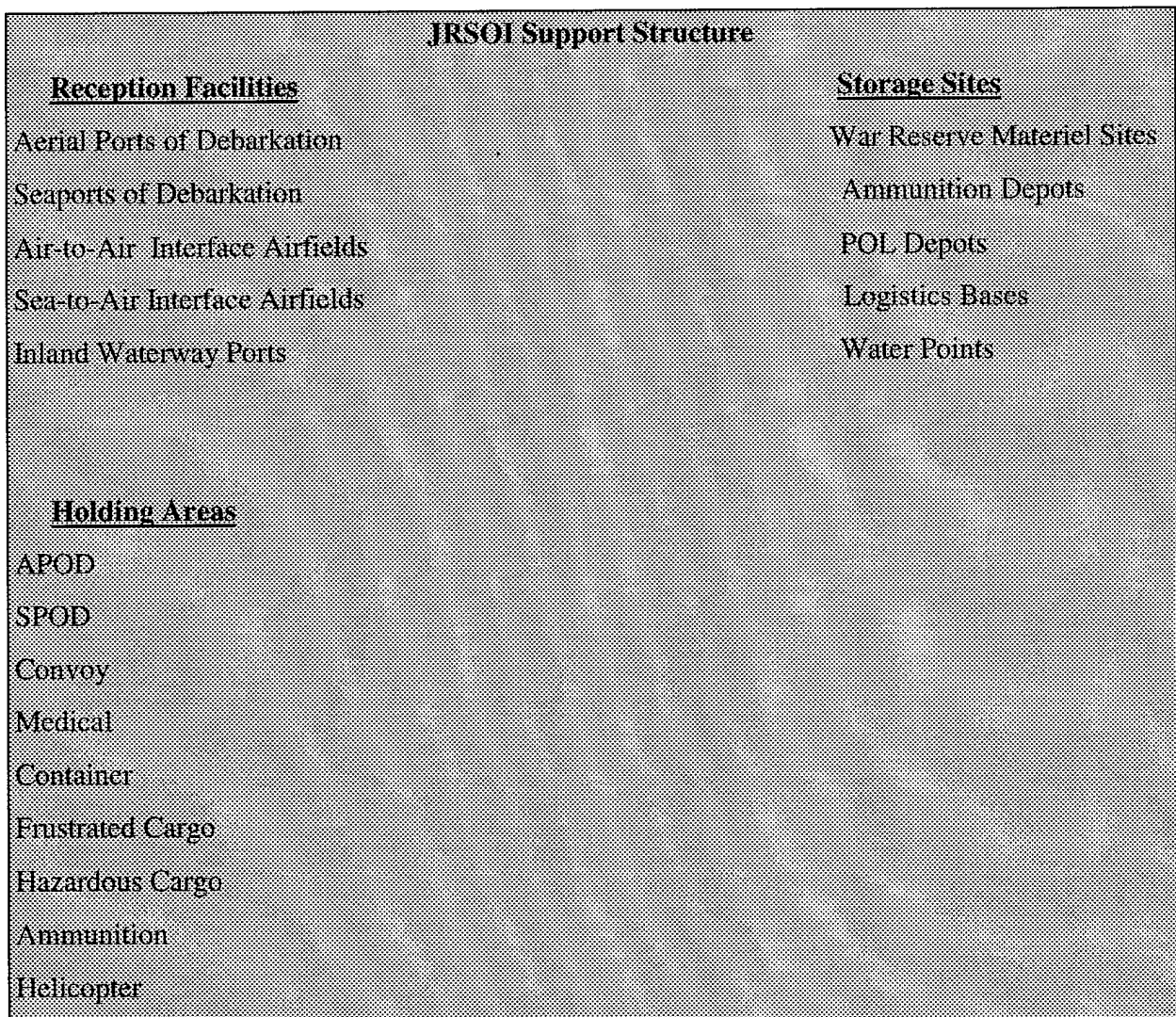


Figure V-2. JRSOI Support Structure

Marshaling is another essential component of the reception process that facilitates port clearance. It is the initial process of assembling, holding, and organizing personnel, equipment, and materiel for incremental movement to designated areas. Timely movement of personnel, equipment, and materiel to common assembly or holding areas allows the commander the first opportunity to reassemble mission capability. This very important task of assembling forces is often complicated by the fact that units may arrive in-theater at separate PODs and at different times. To further enhance port clearance, the combatant commander must designate marshaling areas that support unit reassembly without impeding the arrival ports for follow-on units.

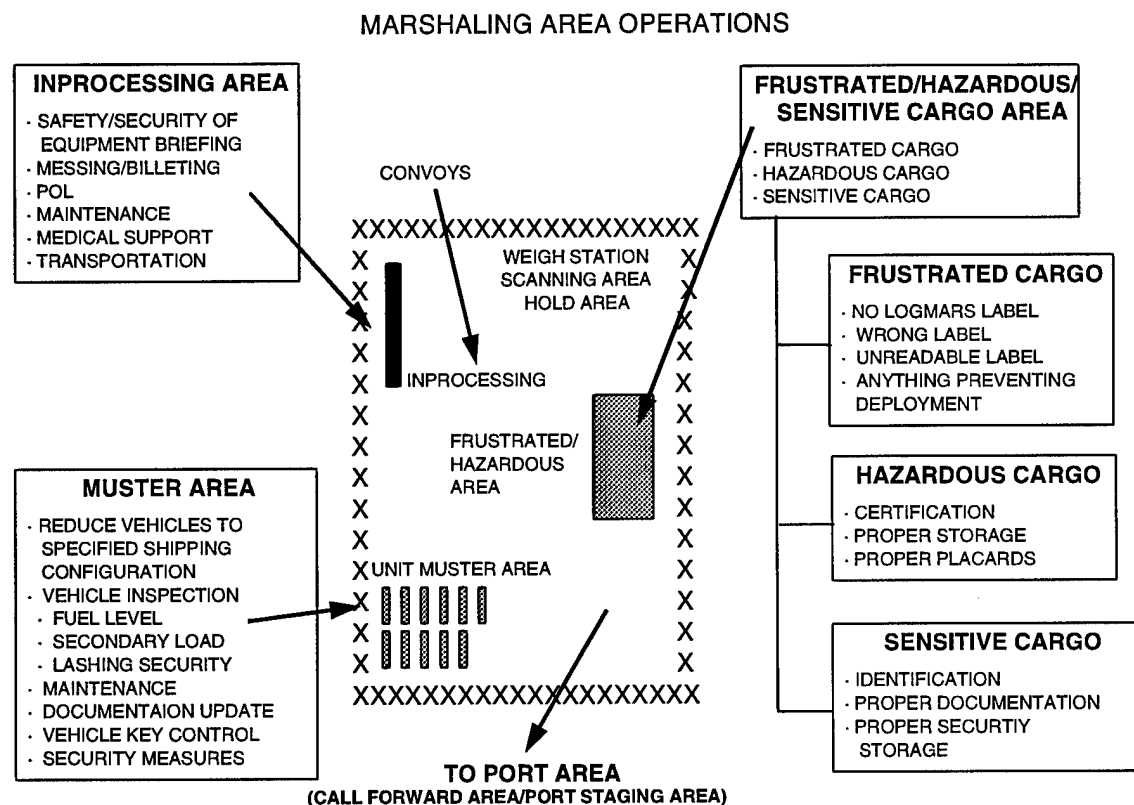
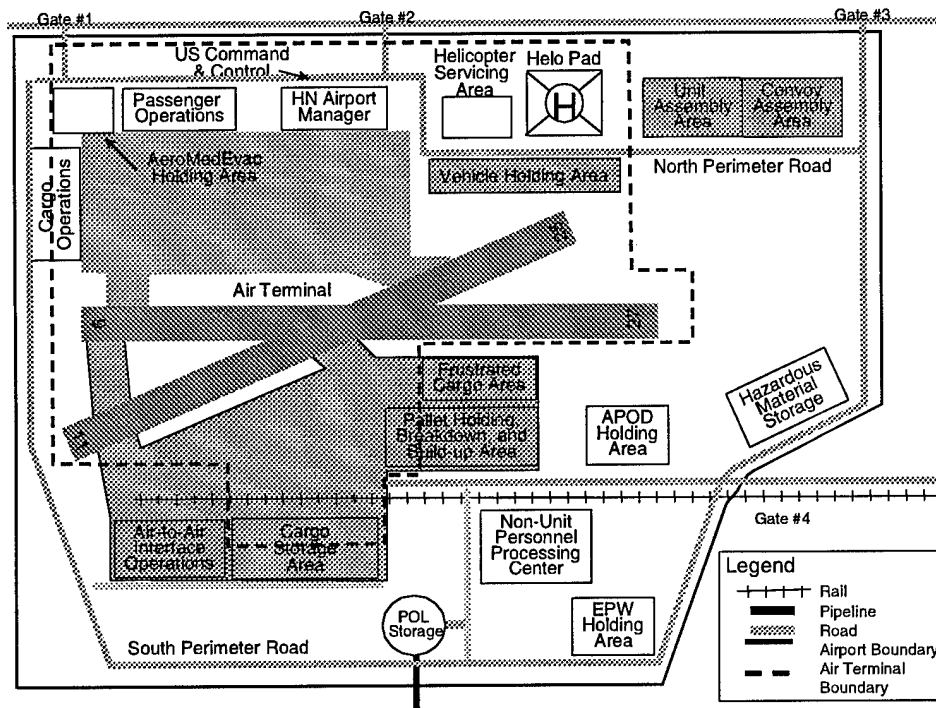


Figure V-3. Notional Marshaling Area

a. APOD. The APOD serves as the primary port of entry for deploying **personnel**, as well as for early entry forces airlifted into theater together with their equipment. APODs by their very

1 nature are joint facilities most often operated in conjunction with the HN. Figure V-4 depicts a
2 notional APOD.

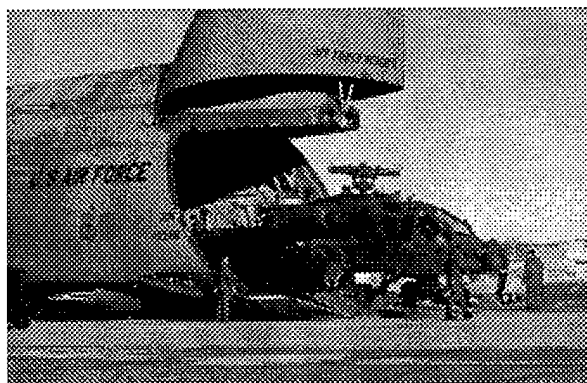


3
4 **Figure V-4. Notional Joint Aerial Port Complex**

- 5
- 6 • **Functions.** Numerous operational and support functions occur at the APOD.
- 7 Primary **operational functions** are to receive, offload, marshal, provide essential
- 8 field services, and transport deploying forces and their equipment. Tasks include
- 9 offloading cargo, both equipment and materiel, clearing personnel through air
- 10 terminals, accomplishing movement control, and maintaining ITV. In addition to
- 11 operational functions, there are critical APOD support functions as shown in Figure
- 12 V-5.

Support Functions at APOD	
Airfield Management	Medical
Maintenance	Security
MHE	Air Defense
Transportation Resources	Command and Control
Transient Aircraft Servicing	Equipment Refueling
Hazardous Cargo Handling	

Figure V-5. APOD Support Functions



Aerial Port Reception Operations

- **Service Capabilities.** Various Service organizations provide the operational capabilities needed for APOD reception. For example, AMC through its **aerial port squadrons (APS)** and **TALCEs** provides much of the operational and logistical support needed to receive arriving aircraft; **NOACT** units unload aircraft and operate air cargo and passenger airheads; and **A/DACGs** provided by either the Army or the Marine Corps can assist with the flow of deploying personnel and equipment. In addition, **HNS**, provided under the provisions of an existing agreement or contracted port services, may be used to free up finite reception assets and minimize the logistical footprint at the APOD. Close coordination with **HNS** activities is necessary to balance the operational requirements of all organizations competing for limited resources. Layout of a typical APOD is at Figure V-6. Primary US and HN elements involved in APOD operations are shown in Figure V-7.

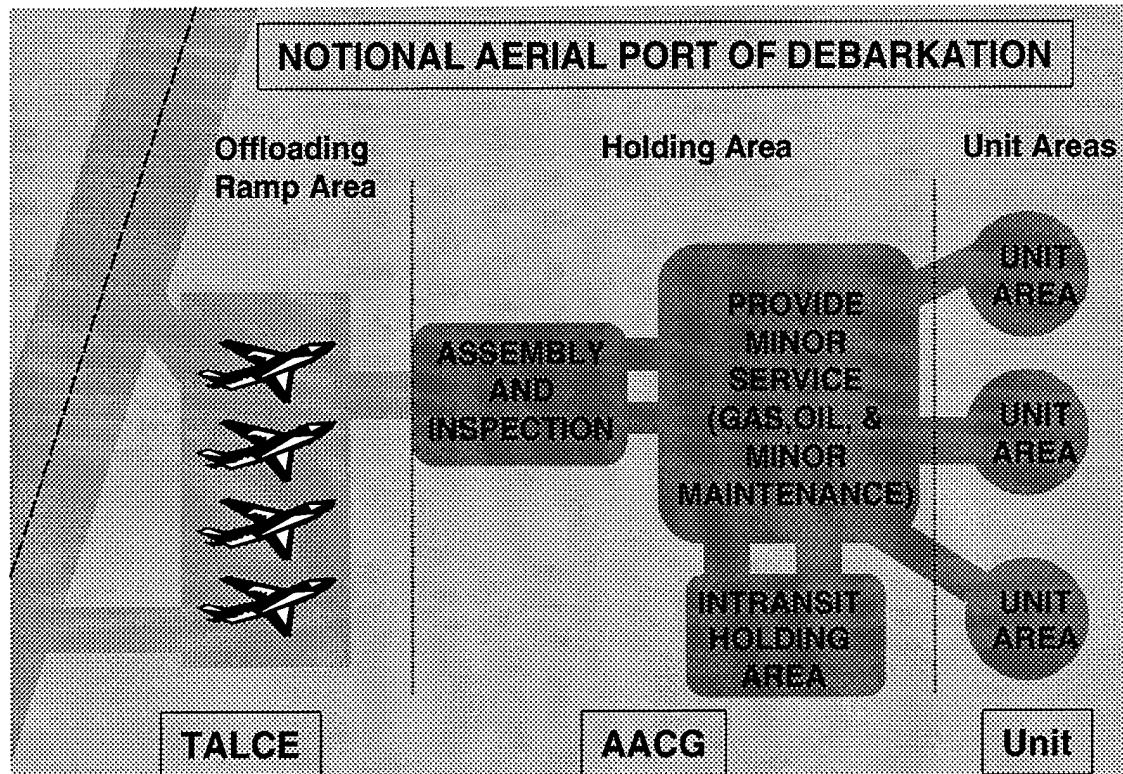


Figure V-6. Notional Aerial Port of Debarkation

Organization or Activity	Parent Organization	Major Functions
Aerial Port Squadron/Mobility Flight	USTRANSCOM (AMC)	Plan aircraft loads, process & document personnel and cargo, load and service airlift aircraft
Aeromedical Evacuation Liaison Team (AELT)	USTRANSCOM (AMC)	Communicate/coordinate aeromedical evacuation requirements between medical facilities and the Global Patient Regulating Center
Arrival/Departure Airfield Control Group (A/DACG)	Army Component Command	Coordination with the TALCE, clear arrival and departure airfield
Port Movement Control Detachment	Movement Control Agency (MCA)	Assist deploying units with onward movement from port. Resolve problems with frustrated cargo
ASG Liaison Element	Theater Support Command (TSC)	Coordinate ASG support at port
NEO Liaison Element	Army Component Command	Coordinate all movements of noncombatants
Aircraft Maintenance Team	Army Component Command	Provide technical assistance to Army aviation units deploying through the Joint Aerial Port Complex
Postal Operations Terminal	Air or Army Component Command	Process inbound or outbound mail shipments
Tanker Airlift Control Element	USTRANSCOM	Control, coordinate, and monitor US

(TALCE)	(AMC)	airlift operations
Port Security	Air Component Command, Army Component Command outside airfield	Provides physical security for the airfield and port complex
Airlift Clearance Authority (ACA)	Air Component Command	Provide clearance for theater airlift of Air Force cargo from Aerial Port Complex
Host Nation Support Elements	Host Nation	Operate airfield, load/ unload aircraft, service aircraft, provide local transportation, provide security, provide air defense, etc.

Figure V-7. Organizations and Functions at APOD

- **Optimize Infrastructure.** Various factors can impede APOD reception, but the overriding considerations for any airfield operation are parking maximum on ground (MOG) and working MOG. Parking MOG is the number of aircraft that can fit, or be parked, on the ground. Working MOG pertains to how many parked aircraft can be worked based on available personnel, MHE, etc. Optimally, working MOG equals parking MOG. Service and HN operators must ensure that their activities do not reduce MOG capacities. For example, during Operation Desert Storm there were 114 acres of 463L pallets on the ground when the ground war commenced. The inability to clear the pallets reduced the parking MOG and therefore reduced the throughput capacity of the airfield.

In Operation Joint Endeavor, the Army established a heliport to reassemble helicopters that were shipped by air. The heliport occupied a portion of an airfield, which affected the number of aircraft that could be parked on the field (MOG). This reduced the throughput

of the airfield and consequently slowed the deployment. An Army decision that impacted the strategic flow.

**Operation Joint Endeavor
Draft Lessons Learned**

- Another consideration is ownership and management of the APOD facility. The APOD may be controlled and/or operated by various HN military and civilian organizations. Additionally, other military and commercial activities may compete for limited facilities. These competing requirements may limit or reduce facility throughput capacities available for reception of forces.

b. SPOD. The SPOD is the second primary LOC node and perhaps the most important because of its enormous throughput potential. The SPOD receives deploying forces through the offloading of their equipment and materiel from sealift vessels. Historically, 90 percent of a deploying force's equipment and materiel are delivered to the theater via strategic sealift. This is especially true for large equipment, bulk materiel, and supplies that are not time-sensitive. There are three types of seaports that can function as an SPOD: improved, world class ports such as Dammam, Saudi Arabia or Pusan, Korea; unimproved or degraded ports such as those found in Somalia and Haiti; and bare beaches where fixed facilities are unavailable.

- Responsibility for essential SPOD functions is shared between HN seaport organizations and US DoD organizations such as MSC and MTMC, military terminal service units, and contractors. Shown below are examples of essential SPOD functions.

SPOD Functions

- Seaport Management
- Cargo Off-loading, Documentation, and Clearance

- Berthing and Chandler Services
- Ship Arrival and Departure Coordination
- Coordination for Transportation for Onward Movement
- Movement Control from SPOD to Marshaling Area
- Hazardous Cargo Handling
- PSA Operations
- Transient Ship Services
- Field Services
- Medical Support
- Contract and Demurrage Administration
- Holding Area Operations
- Maintenance and Logistics Support for Arriving Forces
- Port Security and Force Protection

- SPOD operations are normally conducted at established fixed water terminal facilities such as a sea or inland water port. **Pre-positioned port opening packages** are an option available to the combatant commander through the different Service's pre-positioned equipment located either in-theater or afloat. Pre-positioned port opening packages are capable of operating a water terminal and providing the initial transportation and logistical units necessary to receive forces.
- Water terminals include both seaports and inland water facilities capable of receiving deep draft vessels, coastal vessels, and barges. Many established terminals will have a transportation infrastructure in place such as railways, highways, inland waterways, and adjacent airfields. Although terminal facilities will vary, many will already be equipped to handle Roll on/Roll off (RORO) vessels, containers, general and bulk cargo, and lighterage. Figure V-8 depicts a notional SPOD. Primary US and HN elements involved in SPOD operations is at Figure V-9.

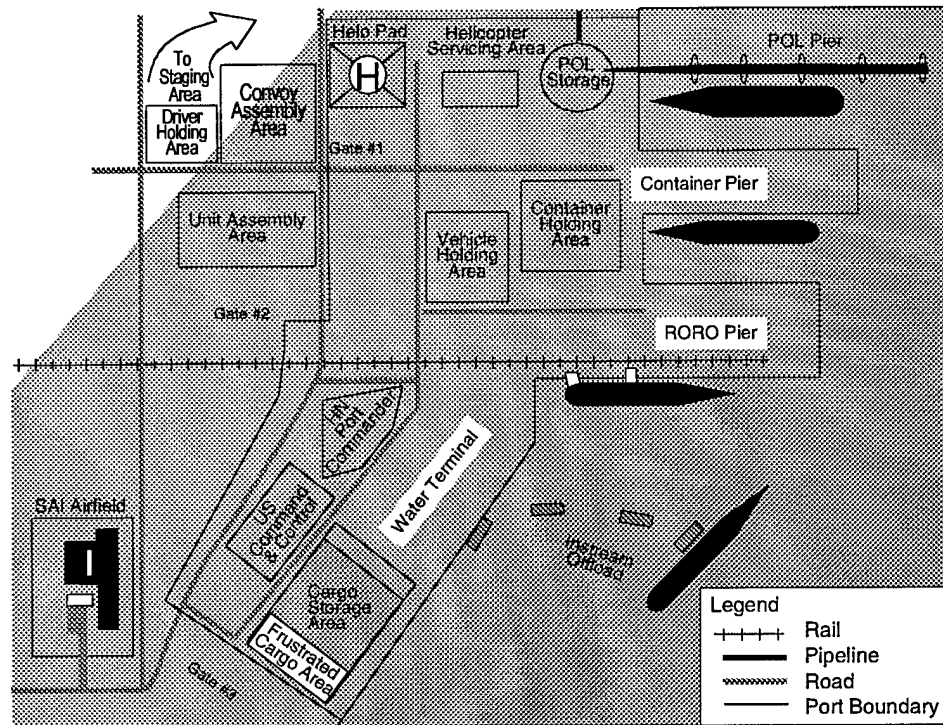


Figure V-8. Notional Joint Waterport Complex

Organization or Activity	Parent Organization	Major Functions
MSC Office	USTRANSCOM (MSC)	Coordinate husbanding services of ships in port.
MTMC	USTRANSCOM (MTMC)	Coordinate loading and unloading of ships, administer contracts, and document cargo.
Ocean Cargo Clearance Authority	USTRANSCOM (MTMC)	Coordinate movement of outbound cargo from seaport.
Logistic Support Element	Army Materiel Command (USAMC)	Provide support to Army pre-positioned afloat operations.
Naval Control of Shipping Organization	Naval Component Command	Coordinate deployment of merchant ship convoys.
Port Support Activity (PSA)	Deploying unit or designated unit	Provide support necessary to assist in deployment (i.e. vehicle drivers, equipment operators, limited maintenance, security, life support).
Port Movement Control Team	MCA	Assist deploying units with onward movement from port.
Area Support Group (ASG)	TSC	Coordinate ASG support at port
NEO Liaison Element	Army Component Command	Coordinate all movements of noncombatants.
Helicopter Maintenance Team	Army Component Command	Provide technical assistance to Army aviation units deploying through the joint water port complex.
DHA Control Group	TSC	Provide necessary services for

		accommodating personnel at driver holding area (DHA).
Tanker Airlift Control Element (TALCE)	USTRANSCOM (AMC)	Control, coordinate, and monitor US airlift operations at sea-to-air interface site (SAIS).
Aerial Port Squadron/Mobility Flight (APS)	USTRANSCOM (AMC)	Provide cargo/passenger service at SAIS.
Airlift Clearance Authority	Air Component Command	Provide clearance for theater airlift of cargo from SAIS.
ASG SAIS Liaison Element	TSC	Coordinate ASG support at SAIS.
Port Movement Control Team	MCA	Assist deploying units with onward movement from SAIS.
Port Security	USCG/Army Component Command/Host Nation	Provide physical security of the port complex.
Host Nation Support Elements	Host Nation	Operate port, load/unload vessels, operate SAIS airfield, load aircraft, provide local transportation, provide security, provide air defense, etc.

Figure V-9. Organizations and Functions at SPOD

- **JLOTS** is an option available to receive the force when debarkation at an established port is impractical. JLOTS is the loading and unloading of ships jointly by two or more Service component forces without the benefit of fixed port facilities. JLOTS operations are conducted over unimproved shorelines, through fixed ports not accessible to deep draft shipping, and through fixed ports that are inadequate without the use of JLOTS capabilities. JLOTS operations should be considered when port throughput capacity or reception capability is inadequate to support planned joint force operations; or to augment port reception capability to handle the surge of major combat forces during the early stages of large force deployments. The magnitude of JLOTS operations extends from the reception of ships for offload through the onward movement of equipment and materiel to inland marshaling and staging areas.

c. The SPOD will contain facilities and organizations, both military and civilian, to perform many of the APOD functions described earlier. Appendix A describes type units and capabilities to support SPOD operations.

- **Port Management.** DoD uses the **single port manager (SPM)** concept for most SPOD operations. As outlined in the UCP, USTRANSCOM has the mission to be the SPM for worldwide common-user seaport terminal management and may provide terminal services by contract. Thus, USTRANSCOM through MTMC will normally manage common-use seaports for the combatant commander. In areas not served by a permanent USTRANSCOM presence, USTRANSCOM will deploy an MTMC team to manage the ports in concert with a designated port operator.

Single Port Manager

USTRANSCOM through MTMC is the DoD designated single port manager for all common-user seaports worldwide. When necessary, in areas where MTMC does not maintain a manned presence, a port management cell will be established to direct water terminal (i.e. fixed, unimproved facility, and/or bare beach) operations, including the work loading of the Port Operator based on the combatant commander's priorities and guidance. Depending on the situation, the geographic combatant commander may also request, in their command arrangement agreement(CAA) with USTRANSCOM, MTMC to operate some or all water terminals in the theater.

d. One of the key organizations for SPOD operations is the port support activity (PSA). It is a temporary military augmentation organization that aids the port commander in receiving, processing, and clearing cargo. The PSA is under the operational control of the port commander. PSA functions are shown below.

PSA Functions

Receiving and staging unit equipment in marshaling areas
Correcting configured equipment and cargo deficiencies
Serving as vehicle operators

1 **Assisting with the servicing of self-deploying aircraft**
2 **Providing necessary maintenance and recovery capability**
3 **Assisting the port commander with cargo accountability**
4 **Providing for security of sensitive and classified cargo**

- 5
- 6 • Transportation systems are crucial to the timely and efficient reception of deploying
7 forces at the SPOD. The supported commander should consider all available
8 resources, geography, transportation capabilities, climate/seasonal changes, distance
9 between LOC nodes, as well as projected requirements for movement of the forces
10 from the SPOD. When selecting an SPOD, the supported commander should
11 consider the transportation infrastructure as well as the capacity of the port to handle
12 potential throughput and surges of deploying forces. A robust rail, road, airport, and
13 inland waterway system will be vital in efficiently receiving and moving the force to
14 staging areas.
- 15

16 **3. Reception Functions.** In order to support operations at the APOD and SPOD, there are
17 essential considerations and functions that support the JRSOI process as shown below. The
18 combatant commander should determine the composition of logistical and other support units to
19 carry out these vital functions. The combatant commander may consider **Most Capable Service**
20 or **Dominant User** options when configuring the support structure.

Essential Functions

- Economy of Force
- Command and Control
- Communications
- Force Protection
- Transportation
- Supply and Services
- Host Nation Support

a. **Economy of Force.** Combatant commanders should tailor their reception operations to provide both efficiency and economy of force, as well as eliminating duplication of limited resources among the Services. Efficient resource management of limited transportation assets and reception facilities assist in optimizing reception throughput. PODs should be capable of handling up to the physical throughput capacity of the port. Time-phased build-up of reception capabilities is an option that may accomplish this. At the same time, however, reception forces must be configured in such a way that they are capable of handling potential surge capacities of strategic deployment.

b. **Command and Control.** Command and control functions are essential to the successful reception of forces into a developing theater, and are the responsibility of the combatant commander. Prior to commencement of deployment and reception operations, the JFC should develop an **in-theater structure** for executing C2 of JRSOI operations. Some C2 assets may be pre-positioned in-theater, geographically in close proximity to the region, or afloat on MSC or Maritime Pre-positioned Forces (MPF) vessels. Successful execution of a reception operation involves a **centralized** C2 structure, a **decentralized** execution strategy, and **disciplined** movement control. The following C2 functions (mission and situation dependent) are examples of what may be required to successfully execute reception functions at A/SPODs:

- 1 • Maintain unity of effort for all primary and secondary LOC nodes.
- 2 • Coordinate, control, and monitor US airlift and sealift operations into A/SPODs.
- 3 • Designate marshaling area.
- 4 • Provide personnel and cargo clearance of arriving forces.
- 5 • Provide for personnel, equipment, and materiel accountability.
- 6 • Provide movement control of arriving personnel, equipment, and materiel.
- 7 • Provide visibility over arriving personnel and cargo by input of JTAV source data
- 8 into appropriate automated information systems (AIS).
- 9 • Perform liaison with HN military and civilian officials for coordinating required
- 10 clearances and support.
- 11 • Coordinate and control loading and offloading from aircraft and ships.
- 12 • Coordinate and control personnel and cargo movements from PODs via surface and
- 13 air to planned holding areas.
- 14 • Monitor and manage the TPFDD.
- 15 • Coordinate and control movement of noncombatants.
- 16 • Provide clearance for intra-theater airlift cargo movements.
- 17 • Provide distribution management for the theater and arriving unit command structures
- 18 of all arriving personnel, equipment, and materiel.

19
20 **c. Communications.** Effective communication, vertically and horizontally, is essential for
21 JRSOI due to the complexity of the operation. Timely and reliable communications should be
22 continuous among all JRSOI participants, both supporting and supported. The following
23 communication functions may be required to successfully execute JRSOI operations.

- 24
25 • Establish links between LOC nodes.
- 26
27 • Use automation technology. Communications should utilize advanced technologies
- 28 that will be both an enabler and force multiplier of the reception process. The entire
- 29 JRSOI process, especially reception, should leverage the power of automation.

JTAV, through GCCS programs, can track as well as manage the flow of forces in-theater and through the numerous PODs.

- Provide liaison officers (LNO). Effective liaison among the Service components and with HNS agencies is paramount in order for effective communication to occur during the entire reception operation.
- Monitor JTAV to provide real-time force tracking, movement control, and distribution information for all organizations and activities.
- Provide for reliable and compatible two-way communications between joint forces.

d. Force Protection. Deploying forces as well as strategic airlift and sealift assets may be the most vulnerable during discharge. The threat must be considered in light of the concentration of forces within the limited confines of a POD. As units move forward to secondary LOC nodes, they remain vulnerable until fully integrated into a mission capable force. Force protection capabilities and/or measures should be integrated into the reception plan. The combatant commander is responsible for providing the assets needed to protect the force throughout the entire reception process. Force protection functions should include but are not limited to:

- Providing theater air defense.
- Maintaining coastal, harbor, and inland waterway defense.
- Providing A/SPOD facility defense.
- Providing military police support.
- Coordinating with rear area operations center (RAOC) for local area security. See Joint Pub 3-10.

- Preparing for the effects of noncombatant evacuation operations (NEO) on JRSOI operations.

e. Transportation. All three elements of a transportation system (**mode operations, terminal operations, and movement control**) should be in place and functioning during reception.

Essential to any JRSOI mission is an executable plan that facilitates **intra-theater transportation** between nodes. The primary transportation nodes and the extended LOCs should be mutually supportive of the principle of unit integrity. To transition from strategic deployment to in-theater reception, the following transportation functions may be required:

- Place port opening force packages at PODs providing hand-off of deploying personnel, equipment, and materiel.
- Employ movement control principles. Movement control coordinates all aspects of transportation; modes, nodes, and terminals. It includes Services-unique capabilities, HNS, and supporting commands.
- Have a support element for offloading of arriving forces.
- Provide intra-theater air and surface transportation assets.
- Manage and monitor the TPFDD.
- Establish theater LOC nodes and links required to meet the anticipated transportation and throughput capacities. Allow for sufficient coordination to ensure timely movement of cargo and equipment through the port to minimize port congestion.

- Identify, assess, and provide for required physical transportation capacities and capabilities (ports, airfields, rail and road networks, littoral and inland waterways, and communications infrastructure).

f. Supply and Services. Supply and services compete for limited strategic lift resources as the priority is on receiving and moving the force forward into the theater of operations. However, sustainment of the force while transitioning into the theater cannot be forgotten and neither can the resources that will be required to sustain reception. The combatant commander must provide arriving personnel and equipment with required life support and field services until unit personnel are reunited with their supplies and equipment and become self-sufficient. The following are typical categories of support that may be provided to sustain newly arriving forces in-theater:

- Field and life services such as food, water, lodging, and sanitation.
- Maintenance and operator support for deploying equipment, vehicles, helicopters, and aircraft.
- Munitions storing and handling.
- Petroleum products storing and handling.
- Medical support and evacuation.
- Mortuary affairs services.
- Frustrated cargo storing, handling, and processing.

Civilian Contractors

One of the most dramatic lessons to come out of Operation Joint Endeavor is that civilian contractors are an integral part of the total force, particularly when it comes to providing logistics and engineering services...LOGCAP uses a civilian contractor to perform selected logistics and engineering services to augment US forces during military contingency operations...The Corps (of Engineers) is also using LOGCAP in unison with Air Force Red Horse and Navy Seabee construction troops. Red Horse and Seabee trade specialists erect the tents while the Corps uses the LOGCAP contract to set up latrines, showers, heaters, dining halls, laundries and other essential life support facilities.

Corps of Engineers News Release

31 January 1996



Life support services provided in-theater shelter, food, water, lodging ...

1 **g. Host Nation Support.** HNS is a potential force multiplier and should be planned and
2 coordinated in advance of an actual deployment. HNS can be as basic as gaining access to
3 A/SPODs; but most likely will be complex, involving all essential functions of reception. The
4 effect of HNS should be a reduction of the logistics footprint in-theater and the need for early
5 deployment of supporting units. HNS agreements will not be without cost nor should deploying
6 forces expect to have unlimited access to local facilities and resources. Military forces will have
7 to share and compete with HN military, civil, and commercial operations for scarce resources and
8 facilities. Essential HNS considerations include:

- 9
10 • Establishing both HN military and civil liaison early. If possible, establish prior to
11 deployment.
- 12
13 • Augmenting reception capabilities early on with dedicated units if civilian or military
14 HNS is not available at APODs and or SPODs.
- 15
16 • Analyzing the PODs and in-theater transportation infrastructure capacity.
- 17
18 • Anticipating limited materiel, key services, and HNS in-country.
- 19
20 • Factoring in flexibility, adaptability, and innovation to a potentially volatile process.
- 21
22 • Contracting support and materiel requirements. Ensure early deployment of
23 contracting, finance, resource management, and legal personnel to accomplish
24 contracting actions.

CHAPTER VI STAGING

"As we have learned many times, the US can ship supplies and materiel to an objective area much more effectively and efficiently than the objective area can unload and distribute those supplies."

LTG (Ret.) Joseph M. Heiser
"Soldiers Supporting Soldiers"

1. General. This chapter describes activities performed in theater staging areas. Staging is the process of concentrating troop units, transient personnel, and materiel between movements over the LOC for mission related purposes. Staging includes the assembling, temporary holding, and organizing of arriving personnel and materiel into units and forces, and preparing them for onward movement and employment. During staging, deploying forces have limited mission capability and are not self-sustainable. They must be provided facilities, sustainment, life support, and protection until they regain their combat or mission capability. Three essential force-related activities occur during staging as shown below.

STAGING FORCE-RELATED ACTIVITIES

Units assemble into a mission capable force.

Units of the force prepare to conduct their missions.

The force prepares for onward movement (if required) and subsequent integration into the theater operation.

2. Staging Process. The staging process begins when forces arrive in designated staging areas. It ends when forces are ready to commence onward movement. While unit personnel and equipment are deploying, commanders retain command, but control of individual shipments is passed to the movement control system. Over time, the unit commander regains control as elements of the unit are reassembled at marshaling and staging areas. During staging, commanders continue the process of regaining integrity of their units as personnel, equipment,

1 and materiel are assembled and prepared for operations. Combat power is built incrementally
2 throughout JRSOI as personnel, materiel, and units pass through the LOC to the final destination.
3 This often involves consecutive iterations of staging and onward movement. Multiple actions,
4 events, and activities must be accomplished to get the force assembled and prepared for
5 movement to the final destination for integration. Staging requirements must be planned and
6 communicated to supporting units that take actions to prepare and organize the people, supplies,
7 and equipment to support staging operations. The major objective of staging is to assemble and
8 prepare the force. The staging process consists of distinct steps as shown in Figure VI-1 and
9 described below.

Joint Reception, Staging, Onward Movement, and Integration (JRSOI) Process Map

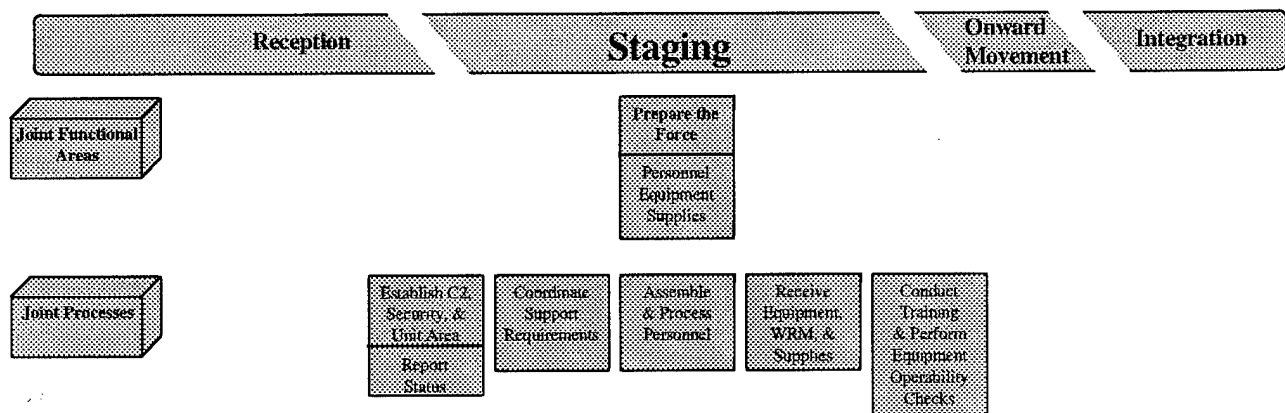


Figure VI-1. Staging Process



Total asset visibility is maintained while building combat power in staging areas

a. Establish C2, Communications, and Security:

- **Command and Control.** Command and control functions are vital to the overall success of staging forces. Staging requires operational command and staff organizations, information management, and reliable communication systems.
- Depending on the size and scope of the staging operation, the combatant commander can assign responsibility for operating the SA(s) to a joint headquarters, or to a Service component. In an immature theater, the staging area(s) may initially be under the command of a Service component and later transition to another component or combatant commander as the theater matures. Staging command structure, responsibilities, and mission roles must be clearly identified in the plan. It is essential

that everyone understands the command relationships of the supporting and supported units.

- The staging area C2 headquarters responsibilities may include:
 - Providing C2 for staging area operations.
 - Establishing standard operating procedures.
 - Providing interface and coordination between the deploying units, task force headquarters, supporting commander, and rear area security operations.
 - Allocating resources to support staging operations based on established priorities.
 - Serving as land manager.
- **Establish Communications:** Near-time communications are essential to operating the SA(s) and in providing integrated management information for force tracking, movement control, and materiel distribution. Communication systems should be established to provide effective communication among all JRSOI LOC nodes and staging areas, higher headquarters, and internal communications within the staging area.
- **Establish Security:** Force protection continues to be an important aspect during staging. Concentrations of personnel and equipment at the staging areas may make these forces potential high value targets vulnerable to enemy actions. Force vulnerability can be reduced by ensuring personnel and equipment pass smoothly and expeditiously through the staging process. In addition, the headquarters responsible for operating the staging area(s) should implement active and passive security measures such as:
 - Developing and executing a force protection plan for units in the staging area. Staging operations must be protected from the full range of threats (espionage, local unrest, terrorist activities, weapons of mass destruction, etc.).

- Coordinating and integrating SA security operations into the joint rear operations center (JROC) force protection plan.
- Providing continuous intelligence on rear and forward area enemy situation.



Security of staging areas can require rapid response

b. Report Status: Units continuously monitor the status of preparation in key operational and logistical areas as they prepare for the mission and report status to higher headquarters. Movement and force statuses should be reported from all nodes where JRSOI operations are being conducted.

- Commanders determine their level of readiness against the readiness standards established by the combatant commander. When commanders assess their units as mission capable, they are scheduled for onward movement to a TAA or final destination for integration.
- Force tracking provides situational awareness of combat ready units within the AOR and can be used as a tool to determine when specific unit capabilities will be available to the combatant commander. This process begins in the SA where personnel and equipment reassemble into combat ready units. Efficient movement control is one means of force tracking.
- In addition, the command responsible for operating the SA(s) must have and maintain visibility of what and when units are arriving, and when units are prepared for onward movement in order to plan and coordinate support/integration efforts. Staging

1 operations should include the communications, automation, and personnel assets to
2 provide and receive force tracking information.

3
4 **c. Coordinate Support Requirements.** While in a deploying status, forces are not self-
5 sustainable, and may require life support as well as other logistic support. These requirements
6 should be provided at the SA(s). Units arriving in the SA should coordinate with the supporting
7 logistics activities to receive logistics support and services as described below.

- 8
- 9 • The amount and type of support required at staging locations to assist deploying units
10 are both unit and situation dependent. The combatant commander should consider the
11 composition of logistical support units that will carry out these vital functions. A
12 deploying unit's need for assistance in an SA area can be influenced by the operating
13 environment, the length of time units spend at the SA, and the ability of the unit to
14 use their own resources to provide for some of their requirements.
 - 15
 - 16 • Supply and services provide necessary sustainment and support to enable the force to
17 achieve readiness. To support staging operations, the following functions should be
18 accomplished.
 - 19
 - 20 • Life support and essential services to support staging units include, but are not limited
21 to: food, water, shelter, sanitation, health service support, local transportation,
22 maintenance, supplies, personnel services, and financial services.



Providing life support at staging area

- Refueling services. Petroleum, oils, and lubricants (POL) delivery systems should be capable of supporting joint forces.
- Ammunition holding area(s) and ammunition handling for staging units.
- MHE/CHE support.
- Transportation and movement control continue to be important functions. The supporting headquarters responsible for operating the SA(s) should consider the following transportation related functions.
 - Maintain visibility of movement schedules and ITV of units that are moving from the marshaling areas to the SA(s).
 - Coordinate staging unit movement requirements with the appropriate movement control center.
 - Provide local transportation services to support equipment staging and personnel billeting activities.

d. Assemble and Process Personnel. Units account for personnel IAW command guidance, JRSOI directives, and unit SOPs. Units are task-organized to execute the missions based on the

combatant commander guidance and the operational environment. Units prepare for onward movement by assembling, processing and segregating, prioritizing, and preparing materiel for transport.

5e. Receive Equipment, War Reserve Materiel (WRM), and Supplies. Equipment, cargo, and supplies are received, accounted for, and distributed IAW logistics guidance. Units perform maintenance and operational checks on their equipment such as:

- Preparing equipment for onward movement.
- Uploading combat loads.
- Ensuring receipt of unit cargo and equipment.

f. Conduct Training and Perform Equipment Operability Checks. Training is conducted in key mission essential tasks. Equipment is checked to ensure that it is ready and mission capable. Units conduct individual and unit training as required.

3. Staging Areas. Staging areas are specific locations along the LOC. The combatant commander usually designates specific locations for staging in order to provide space and focus resources to support staging operations. Staging areas provide the necessary facilities, sustainment, and other support to enable units to become mission capable. The size of the deployment and location of the PODs may necessitate multiple SAs.

- In selecting the location of the SA(s), the combatant commander visualizes the deployment operation in a battlefield framework to include the operational dimensions of time, tempo, depth, synchronization, and posture for employment. He evaluates the location of TAAs, geographic constraints, availability of organic and HN assets, transportation infrastructure, distance to the ports, and force protection considerations. These factors, along with the physical dimensions of the theater, ultimately determine the location of the theater SA(s).

- The size of the SA is influenced by numerous variables including the anticipated flow of forces in-theater, space available, and threat. The TPFDD is an important tool for the combatant commander to use in understanding the requirements for SAs.
- The combatant commander ensures that the geographical area is adequate to allow employment of, forces, facilities, and supporting systems. In those circumstances where the geographical area is inadequate, he should plan to increase the theater LOC structure and capacities, adjust the flow of forces in-theater, or increase allowable force closure times. Shown below at Figure VI-2 is a notional staging area.

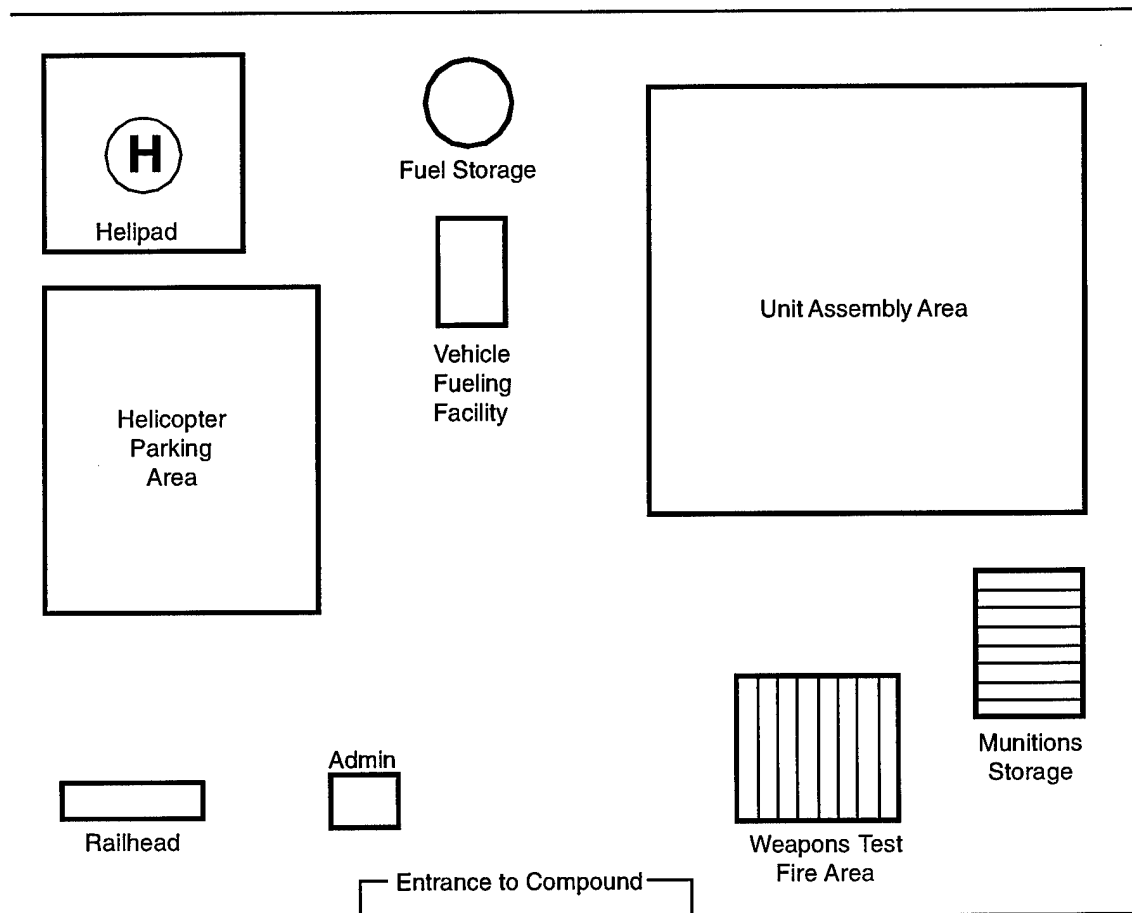


Figure VI-2. Notional Staging Area

- **Intermediate Staging Base.** The theater operational situation may necessitate the establishment of an ISB outside of the combat zone or area of operations prior to

1 inserting the forces. If established, the ISB is the initial theater reception and staging
2 facility. Deploying forces debark from strategic lift, reassemble, and prepare for to
3 accomplish assigned missions. The ISB may serve as a principal staging base for
4 entry operations in order to secure a lodgment to project the force into the JOA; or as
5 a secure facility for split-based operations. In other cases, the JOA may not have the
6 physical infrastructure to support JRSOI and require the use of superior air and sea
7 bases outside the region.

CHAPTER VII ONWARD MOVEMENT

"The line that connects an army with its base of supplies is the heel of Achilles - it's most vital and vulnerable point."

John S. Mosby: War Reminiscences ix, 1887

1. General. This chapter describes systems and processes for accomplishing the onward movement of deploying forces. Onward movement is the process of moving units and accompanying materiel from reception facilities and marshaling or staging areas to TAAs or other theater destinations. It includes moving arriving non-unit personnel to gaining commands and moving arriving sustainment materiel from reception facilities to distribution sites. This movement can be accomplished by rail, road, inland waterway, and/or air. Challenges to onward movement include:

Onward Movement Challenges

Transportation Network

Enemy Interdiction

Reporting Procedures

Movement Control

Efficient onward movement of personnel, equipment, and materiel requires a balanced, integrated system of node operations, **movement control**, mode **operations**, and **cargo transfer operations**. The onward movement process encompasses support to all Service components of a joint operation, and often includes HNS. As in all JRSOI activities, onward movement of personnel, equipment, and materiel is prioritized according to the combatant commander's needs. Onward movement is complete when force elements are delivered to the designated location at the designated time.

Joint Reception, Staging, Onward Movement, and Integration (JRSOI) Process Map

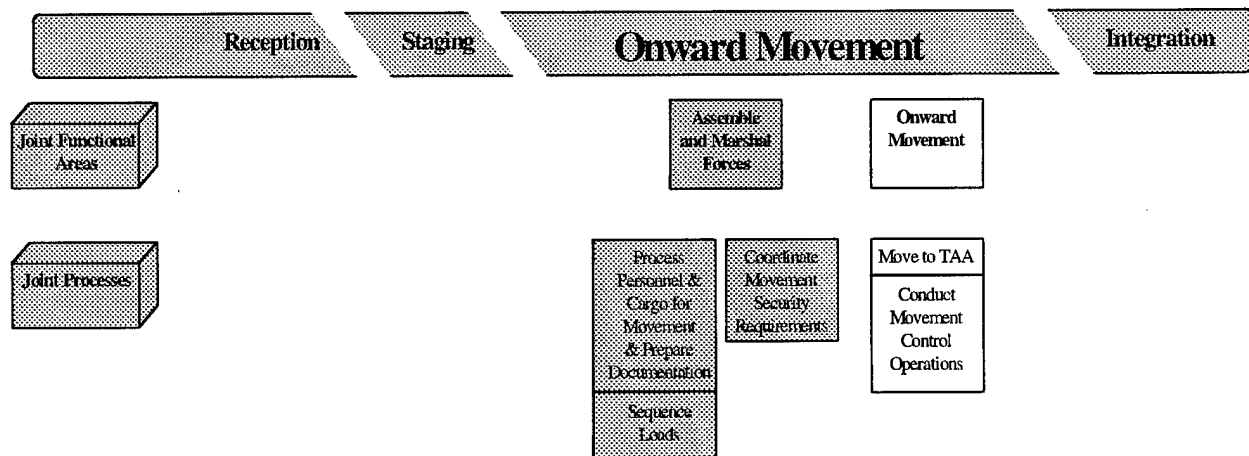


Figure VII-1. Onward Movement Process

2. Onward movement process. Onward movement consists of several distinct steps as shown in Figure VII -1 and described below.

a. Assemble and Marshal Forces. Assembly and marshaling of forces involves bringing together people, supplies, and equipment in preparation for onward movement. Support functions are established and positioned in-theater to expedite and control the onward movement of the force to the objective area (OA).

b. Process Personnel and Cargo for Movement and Prepare Documentation. Load plans are developed and checked to ensure that essential equipment and supplies can be transported. External movement requirements are identified and movement requests are submitted.

c. Sequence Loads. Loads are sequenced to ensure the most efficient use of available transportation assets. Safety and security of the force are also considered when making decisions during sequence planning.

d. Coordinate Movement Security Requirements. Units ensure that security operations are established IAW the security plan and monitor the movement.

e. Move to TAA. Units depart the staging area en route to the OA in accordance with movement and security instructions.

f. Conduct Movement Control Operations. Movement control elements coordinate movement requirements with the security force and confirm that movement clearances have been approved. Departure, en route, and arrival statuses are monitored and reported.



3. Onward Movement Functions. Key elements of the onward movement process are speed of movement and information flow. Speed of movement is vital for force protection and mission accomplishment. Information flow encompasses locations and capabilities of forces, projected and actual arrival times at en route and final destinations, and component commands' ability to

effect the movement. Successful onward movement of deploying forces can be viewed in the context of six critical functions as depicted and explained below.

CRITICAL FUNCTIONS OF ONWARD MOVEMENT

- Command and Control
- Communications
- Transportation
- Supply and Services
- Host Nation Support
- Force Protection

a. Command and Control. Movement control is a system involving the coordination and integration of movement information and programs, spanning all levels of operations. The geographic combatant commander should task organize the movement control functions commensurate with the mission, size, and geography of the operational area.

“The theater combatant commander has a wide range of options for performing movement control. These options include directing subordinate JFC and Service components to perform their own movement control, or creating a fully integrated joint organization.”

(Joint Pub 4-01.3, JTTP for Movement Control, Jun 96)

- **JMC.** During execution, a JMC, under the direction of the combatant commander, can perform the movement control mission for joint operations. The JMC serves as the conduit for information and coordination between the combatant commander and mode operators at the operational and tactical levels. The JMC coordinates the employment of all means of theater transportation. The early deploying element of a JMC should include personnel from all deploying

Services. The JMC coordinates strategic movements with USTRANSCOM and the overseas execution of theater transportation priorities. The JMC is normally organized along functional lines and is the nucleus of an organization that can be expanded in proportion to the size of the joint force. See Joint Pub 4-01.3, for more details concerning the JMC.

Joint Movement Center

An effective theater movement control option recommended to geographic combatant commanders is the establishment of a JMC. The JMC is responsible for coordinating all modes of theater transportation to support the theater concept of operations.

JP 4-01, Joint Doctrine for the Defense Transportation System, 17 Jun 97

- **DIRMOBFOR.** The DIRMOBFOR is responsible for integrating the total air mobility effort for the JFACC, and serves as the designated coordinating authority for air mobility with all internal and external commands and agencies. The DIRMOBFOR provides direction to the AMD, which plans, coordinates, tasks, and executes the air mobility mission. The AMD coordinates with the combatant commander's movement control authority, the theater air mobility operations control center, AMC's TACC, and TALCEs as required. TALCEs are mobile C2 organizations deployed to support inter- and intra-theater air mobility operations at fixed, en route, and deployed locations when air mobility operational support is non-existent or insufficient. TALCEs provide on-site management of air mobility airfield operations to include C2, communications, aerial port services, maintenance, security, transportation, weather, intelligence, and other support functions.

Inadequate control of movement, whether into or out of a theater, results in waste, reduced logistic efficiency and consequently, a loss of potential combat power.

Joint Pub 4-0

- **Movement Control Architecture.** A movement control architecture is a geographically dispersed, integrated network of movement control units with reporting capabilities. This architecture is an essential foundation that must be established if movement control, ITV, and force tracking are to be successful. Movements and statuses of units and forces should be reported from all nodes where JRSOI operations are conducted. Key locations include arrival air and water terminals, marshaling areas, staging areas, TAAs, intransit support points, and locations where forces and sustainment cross international borders.
- **ITV System.** The ITV system provides a capability vital to coordinated onward movement. It tracks units, personnel, and equipment en route from reception areas to staging areas, and forward to the assembly areas. The physical capabilities/limitations of the distribution network, along with the effects of combat, can limit the ability to execute onward movement as planned. Thus, ITV information is critical to successful execution of onward movement to include: location, characteristics, and capacities of roads, aerial ports, and rail lines; combined with current status of highway regulation, traffic circulation and surface distribution plans, and movement programs.
- b. Communications.** Movement control elements should be equipped with sufficient communication and automation systems to ensure adequate interface between strategic and theater transportation systems and the combatant command's staff. They should be skilled in coordinating and directing theater transportation operations in support of unit movements and/or logistic resupply operations.
- c. Transportation.** Nodes, routes, and HN assistance should be coordinated to maximize the speed of movement. Close coordination is essential for minimizing congestion because in most cases the Services, allied units, and the HN populace will be using the same networks. It is essential that capacities and capabilities of the transportation network are balanced against the movement requirements so that nodes and routes are neither saturated or underutilized.

Operation Joint Endeavor, as described below, highlights the need for thorough transportation planning and coordination.

Operation Joint Endeavor

At the time of execution, the rail deployment plan was based on an invalidated deployment rate (20 trains per day). At the planned rate of movement, the division could deploy the bridge opening package, open the ground lines of communications, accomplish the transfer of authority, and begin enforcement of the ZOS [Zone of Separation] by D+30. As the deployment began, it rapidly became apparent that the rail LOC would only throughput about half of the planned deployment rate. As a result, ad hoc force tailoring decisions had to be made to compensate for the reduced rail lift capacity.

Initial Impressions Report
Operation Joint Endeavor

As previously explained, the designated movement control element is responsible for coordinating the use of all theater transportation resources with USTRANSCOM and its TCCs, other combatant commands, and the HN. Listed below are transportation considerations during onward movement.

- The theater LOC begins at the locations where personnel and materiel arrive in theater--the reception complexes. Operation of theater LOCs is the responsibility of the supported combatant command. This responsibility falls to the designated movement control agency (MCA).
- Movement control detachments deploy early to coordinate and synchronize the onward movement of units, materiel, and sustainment.

- Regulating teams, or equivalent military police teams, facilitate the onward movement of assets in the theater. They can coordinate with and are normally collocated with HN traffic control authorities.

- Transportation mode operating units with sufficient lift are necessary to move units, materiel, and sustainment from the SA forward to the assembly area.

d. Supply and Services. En route support nodes along the theater LOC provide security, life support, refueling, limited vehicle maintenance, and vehicle recovery. The size of the support centers will be based upon the available facilities, length of route, and volume of equipment and personnel transiting the sites. Various types of en route facilities that support onward movement include:

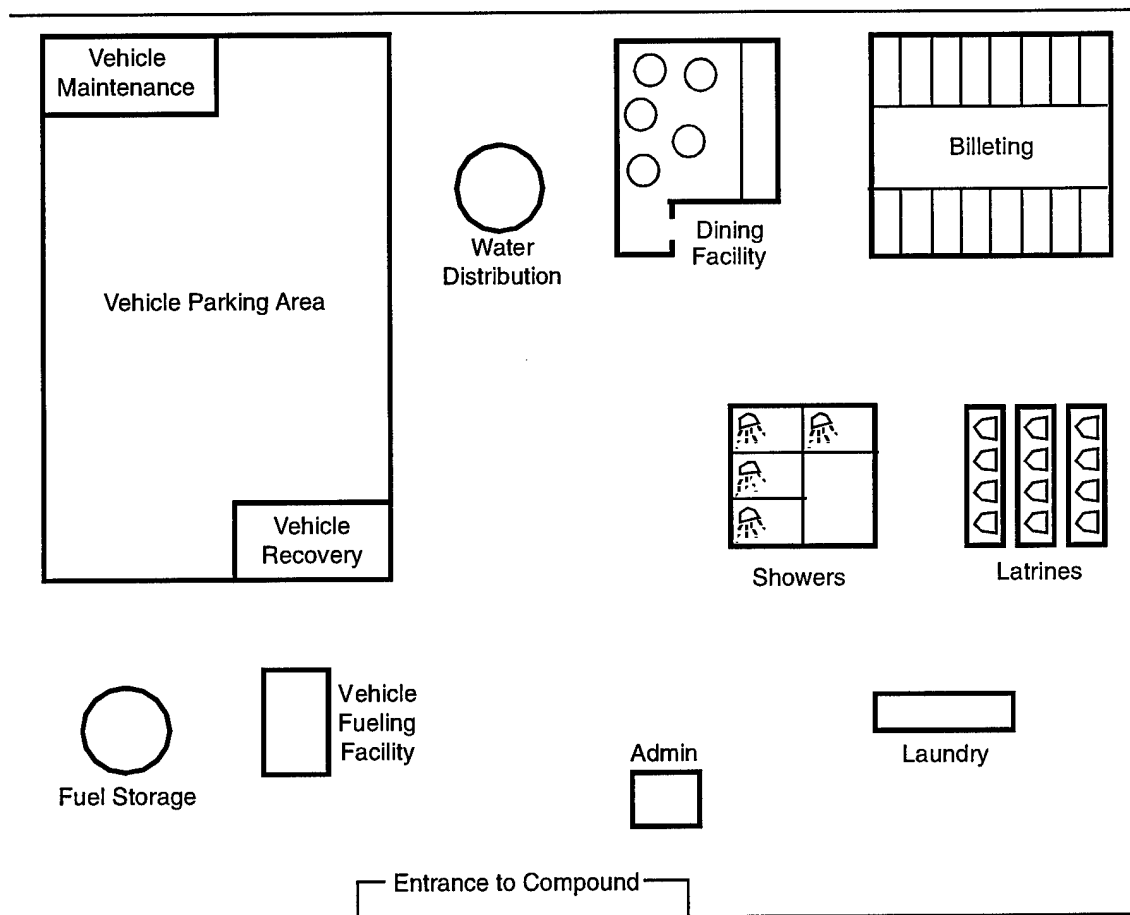
- Aircraft en route support sites.
- Convoy support sites.
- Trailer transfer points.
- POL transfer points.
- Pre-positioned equipment sites.
- Pre-stock supply points.
- Railheads.

Of the above listed facilities, convoy support sites are among the most critical. Convoy support sites provide the bulk of en route support during onward movement. Services provided by convoy support sites may be tailored based upon such factors as distance between LOC nodes; number and location of support bases; and MSR congestion, condition, and security.

- Convoy support sites usually provide support in the following areas:
 - Administration and communications.
 - Refueling.
 - Dining and billeting.
 - Latrines.

- Laundry and showers.
- Vehicle recovery and maintenance.
- Medical.
- MHE/CHE.
- Security (force protection).

Figure VII-2 depicts a notional convoy support site. Descriptions of the other en route support facilities are in Appendix B.



VII-2. Notional Convoy Support Site

Convoy Support Sites

The distances traveled were considerable. The long haul from the port of Ad-Dammam to the logistical bases at King Khalid Military City (KKMC) was over 334 miles along the northern route. With the staggering number of support vehicles using the northern MSR, it was not uncommon for multiple convoys to jam the two-lane MSRs. Along the northern route, it was a common site to see large trucks breaking off from the two-lane road and carving additional passing lanes through the sands of the desert.

With a long LOC over generally poor roads, Colonel Whaley was faced with the task of creating a transportation network capable of supporting Desert Shield objectives. As the Deputy Commanding General (DCG), Transportation, 22d Support Command, Colonel Whaley began by establishing a series of convoy support centers to increase the road network efficiency. According to the Army Chief of Staff's official history, "These centers resembled huge truck stops in the desert, and like all truck stops, operated 24 hours a day, providing fuel, latrines, food, sleeping tents, and limited vehicle repair facilities. The convoy support centers quickly became welcomed oases for overworked and exhausted long haul truck drivers."

BG Robert Scales
Certain Victory

e. Host Nation Support. Use of HN resources and facilities is essential to the successful employment and deployment of forces. To support onward movement operations, HNS agreements should be pursued, in advance if possible, to augment the onward movement infrastructure requirements and reduce the overall logistics footprint. HNs can often provide a variety of services through their national agencies and can support onward movement in categories such as those shown below.

HOST NATION SUPPORT

Convoy support (food, water, lighting, billeting, showers, latrines, etc.)

Medical

Security

Communications

MHE/CHE

Ground transportation (buses, line haul, heavy lift, etc.)

Convoy, road, rail, and diplomatic clearances

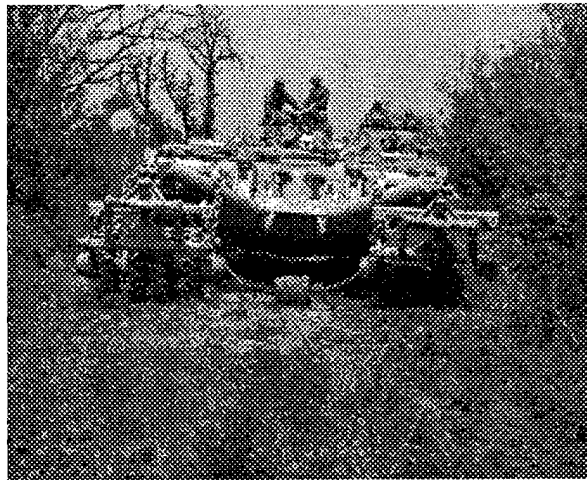
f. Force Protection. Force protection is critical to onward movement because it minimizes enemy opportunities to inflict serious losses and delays. The threat of enemy interdiction to onward movement of forces presents a special challenge to the commander. The combatant commander must assume that interdiction of the LOCs will form an integral part of enemy strategy and must plan operations to preclude them from impacting onward movement.

Arab-Israeli War

During the 1973 Arab-Israeli War, an Israeli commando team of 12 men and a jeep-mounted recoilless rifle (RCL) were inserted at 2400 hours along the Baghdad-Damascus Highway about 100 km north of Damascus, near a bridge crossing a deep ravine. The bridge was rigged for demolition, ambush positions were laid out covering the bridge approaches, with hasty minefields covering the ambush positions. At dawn, an Iraqi tank brigade, moving on transporters, began crossing the bridge. After several vehicles had crossed, the bridge was destroyed, and the exits from the bridge approaches interdicted by the RCL, thus isolating the convoy on the road. The immobilized vehicles were then destroyed by aircraft on-call, and by commandos using satchel charges. In this manner, approximately 50 Iraqi tanks were destroyed, and the road remained closed for several days (during a critical part of the war), due to fear of additional ambushes.

1973 War Lessons Learned

1
2 Protecting the LOCs should be at a minimum cost to committed combat units through the use of
3 geography, HN civil and military forces, as well as assets of other US Services. It may be
4 necessary to conduct a major operation to secure LOCs over which onward movement is
5 conducted to ensure that the incremental build of combat power is not interrupted. In addition,
6 alternatives such as rerouting or mode substitution should be considered, i.e., air and sea LOCs to
7 replace or supplement ground LOCs, if preventive and preemptive measures fall short.
8



9
10 **LOCs are often targets of enemy interdiction requiring**
11 **additional active prevention measures.**
12
13
14

CHAPTER VIII INTEGRATION

"My logisticians are a humorless lot...they know if my campaign fails, they are the first ones I will slay."

Alexander

1. General. This chapter describes the **integration process** and key **integration requirements** to successfully integrate deploying forces into the theater command structure. Integration is the synchronized hand off of mission ready units into the combatant commander's force. Integration may take hours or days. The complexity and time required for integration depends on the size, contingency conditions, and coordination and planning. C2, communications, and security are the priority of effort during the integration phase. Integration begins when the combatant commander declares the deploying forces have closed into the tactical assembly area. Integration is complete when the receiving commander establishes command and control over the arriving unit and the unit is capable of performing its assigned mission.

Integration Challenge

The integration challenge is to seamlessly integrate cohesive, mission-capable units into the gaining command.

2. The primary goal of integration is to provide the operational commander with a mission capable force. Figure VIII-1 depicts steps necessary to complete integration.

Joint Reception, Staging, Onward Movement, and Integration (JRSOI) Process Map

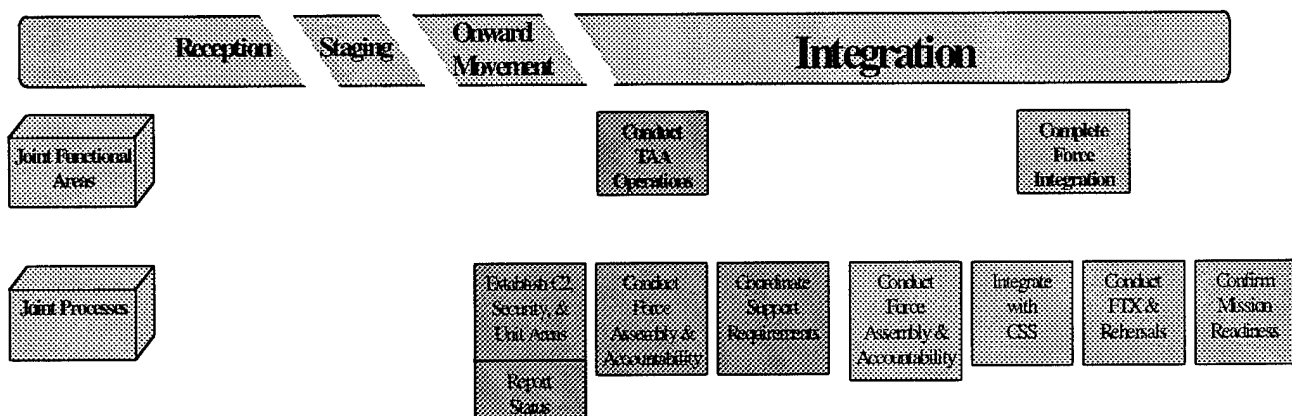


Figure VIII-1. Integration Process

- 1
- 2
- 3 **a. Conduct Objective Area Operation.** The OA is a location designated by the combatant
- 4 commander where units will transfer authority to their gaining commands, integrate into the
- 5 force, and be prepared for tactical employment. Units arrive at the OA and continuously monitor
- 6 the status of preparation in key operational and logistical areas as they prepare for the mission.
- 7 Coordination is also made for OA security operations. Unit reports to higher headquarters ready
- 8 for operations when JRSOI operations are completed.

- 1
- 2 • **Establish C2, Security, and Unit Area.** C2 and command post (CP) operations are
- 3 established and liaison elements are sent to higher, adjacent, external, and subordinate
- 4 organizations as the mission requires. Units improve their unit areas, establish and
- 5 maintain security, and prepare for future operations.
- 6
- 7 • **Report Status.** Units continuously monitor the status of preparation in key
- 8 operational and logistical areas as they prepare for the mission and report status to
- 9 higher headquarters. Movements and the status of units and forces should be
- 10 reported from all nodes where JRSOI operations are being conducted.
- 11
- 12 • **Conduct Force Assembly and Accountability.** Units perform a final unit assembly;
- 13 account for equipment, supplies, and personnel; and report status to the gaining
- 14 command.
- 15
- 16 • **Coordinate Support Requirements.** Coordination is established with the TAA
- 17 support activities to provide logistics support and services.
- 18

19 **b. Complete Force Integration.** The unit is integrated with logistics and operational
20 components of the gaining command and completes any final command-directed training and
21 activities before being committed to missions. The JRSOI process ends when the unit
22 commander reports his unit is ready for operations and the unit is integrated its higher
23 headquarters.

- 24
- 25 • **Integrate C4 with Gaining Command.** C4 is completely integrated between the
- 26 gaining command, supporting commands, units, JRSOI organizations, and
- 27 commanders at all levels to facilitate the timely and accurate exchange of critical
- 28 information. The receiving commander must establish C2 over arriving units in the
- 29 OA.
- 30

- **Integrate with Appropriate Support Organizations.** The unit establishes direct support relationships with various support elements in the support structure to include supply, services, maintenance, and medical.
- **Conduct FTXs and Rehearsals.** Units conduct field training exercises (FTX) and rehearsals as part of final training preparation.
- **Confirm Mission Readiness.** Commanders report their units status IAW the readiness criteria established by the combatant commander and confirm when ready to execute their assigned missions.

3. Integration Process.

Integration	
•	Process
•	Prerequisites
•	Command and Control
•	Coordination Planning Requirements

a. Integration Process. By definition, integration is the fourth and final element of JRSOI and is normally accomplished concurrently with other force projection and JRSOI tasks. It can occur anywhere along the JRSOI continuum and is normally the last JRSOI element to be completed.

b. Prerequisites. There are two major prerequisites to integration. The unit must be mission capable and integrated into the C2 processes of its higher HQ.

c. Command and Control Establishment. Upon arrival at the integration site, new C2 and communications networks must be established. Integration is complete when the commander assumes OPCON of a mission capable unit. Integration is dependent upon such factors as size,

contingency conditions, coordination, and planning. Force tracking, which occurs as the force builds combat power, culminates in force closure as reported by the commander of the unit.

d. Coordination and Planning Requirements. Early and continuous coordination and planning can reduce integration time. Units can establish predeployment liaisons to exchange information, SOPs, communication networks, and mission, as well as plan for and prioritize an in-theater incremental buildup of combat power. Once established, the liaison is maintained to update information (intelligence, situation, mission, deployment timeline, etc.) to expedite the in-theater integration.

4. Integration Functions. Unlike the functions described in reception, staging, and onward movement, the emphasis during integration is on C2 and communications of personnel, equipment, and materiel as they enter the theater and prepare for integration. Force tracking helps predict when in-country integration can begin and how long it will take to complete. Force protection is still critical but may be easier as security forces reestablish their military capability during staging and onward movement. However, to effectively and efficiently accomplish integration of the force, the primary JRSOI logistical functions (i.e., transportation, supply and services, medical, etc.) still merit consideration because supporting functions are no longer provided by the JRSOI support structure.

a. Upon notification of deployment, a liaison between the deploying unit and receiving headquarters should be established to enhance integration. This liaison is conducted through formal liaison teams attached to the arriving and receiving headquarters (the preferred method) or remotely through communication channels. The size and make-up of the liaison teams are based on the mission and contingency conditions.

b. Effective liaison enhances the commander's confidence in planning, coordinating, and executing integration. Subordinate commanders may use an LNO to obtain necessary information such as common coordination measures; tactics, techniques, and procedures (TTP); SOPs; rules of engagement; terms; symbology; and exercises.

CHAPTER IX ENABLERS

"The key to success is a seamless communications architecture that allows commanders to see the battlefield in every dimension, and with capabilities such as Video Teleconferencing, Global Transportation Network, Radio Frequency Tags, and the Defense Tracking System that increases the commander's visibility and units' command and control."

Lieutenant General Robert Gray

1. General. This chapter describes systems and processes that enhance JRSOI execution. The combatant commander uses a variety of processes to manage movement flow and provide JTAV. These enablers include:

JRSOI Enablers

- Automated Information Systems
- Visibility
- Theater Distribution
- Contingency Contracting
- Host Nation Support
- Deployment Planning

2. Automated Information Systems. The goal of automated systems is to provide the combatant commander with dominant battlefield knowledge. Automated C2 systems implement the exchange of information among the combatant commander and Services and functional components and component commands. The movement, processing, and analysis of data and information are continuous throughout mission execution. Described below are three key systems that are available to monitor and control the JRSOI process. Appendix D describes other automated information tools that facilitate the JRSOI process.

Key Automated Systems

Global Command and Control System

Global Combat Support System

Global Transportation Network

a. Global Command and Control System. GCCS is a comprehensive C4I system. It provides a means for integrating Service and agency C4I systems into a global network of military and commercial communications systems. GCCS supports the exchange of information from subordinate units and agencies to combatant commanders and their components. Specific capabilities include:

- Incorporating the procedures, reporting structures, automated information processing systems, and communications connectivity to provide the information necessary to effectively plan, deploy, sustain, employ, and redeploy forces.
- Providing combatant commands and JFCs with the ability to rapidly provide military information to the NCA, as well as to other supporting commands. The system's common operational picture is a key tool for commanders in planning and conducting joint operations.

b. Global Combat Support System. GCSS provides a means for achieving interoperability across combat support functions, as well as among combat support and C2 functions. It also expands the availability of information to provide the combatant commander with more tactical options. Similar to GCCS, GCSS interfaces and integrates corporate-wide with Service and agency sponsored combat support systems.

c. Global Transportation Network. GTN is the central repository for visibility of assets in-transit from origin to destination, including all military and government shipments. The GTN is

not simply another database; it is a network of systems that continue to evolve. It gives the means to access command, control, communications, and computer systems that support global transportation management. GTN contains shipment status information, booking information, passenger reservation information, aircraft and ship manifests, personal property data, medical patients information, and vessel and aircraft scheduling data, providing near 'real-time' data to commanders. Figure IX-1 depicts elements of the GTN system.

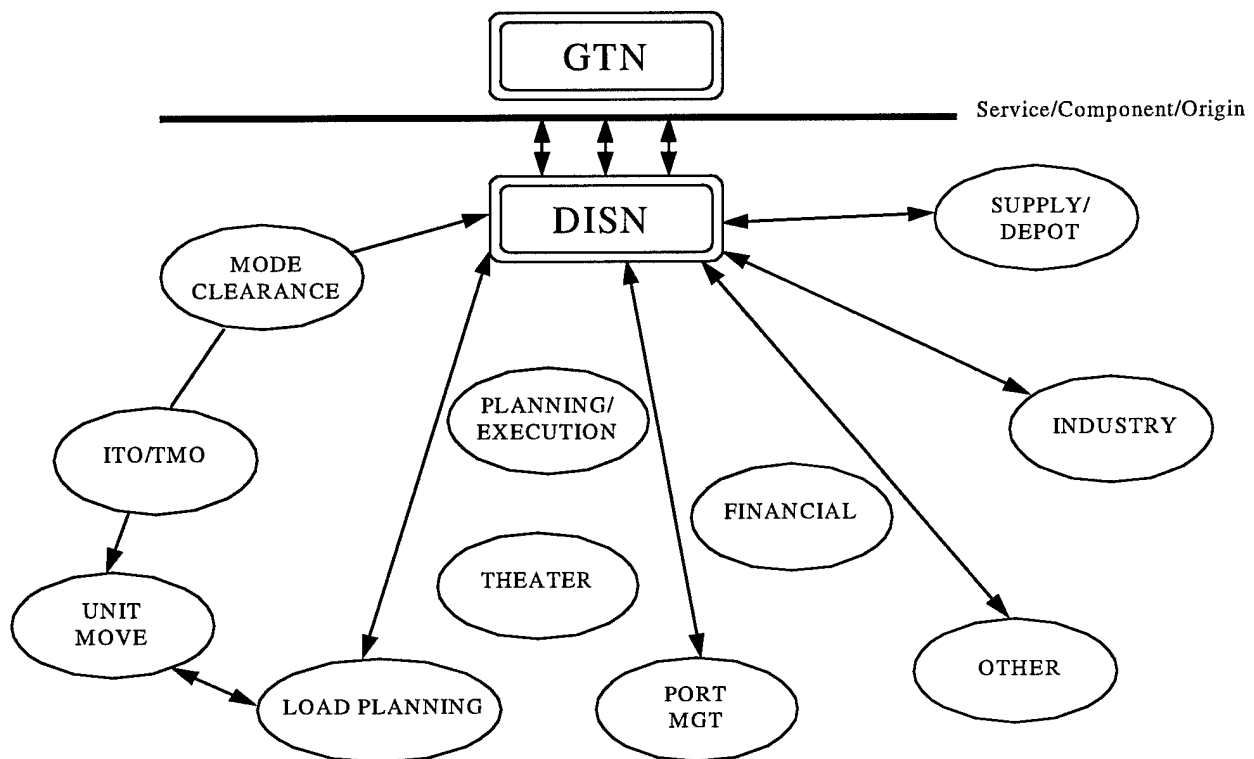


Figure IX-1 Global Transportation Network

“Transportation systems are joint...they ought to be managed in a joint fashion,” General Armstrong reminded his boss, Air Force Lieutenant General Michael P.C. Carns, Director of the Joint Staff. But, he added, unless USTRANSCOM has peacetime authorities to enforce system compatibility, data standardization, training, and document and data entry discipline, transportation systems--like GTN and JOPES--would likely be unable to meet warfighter needs and expectations.

pages 28-29, So Many, So Much, So Far, So Fast
USTRANSCOM and Strategic Deployment for Operation Desert Shield/Storm

3. Asset Visibility. Being able to precisely track personnel and materiel while in-transit is essential to the deployment and JRSOI process. Described below are inter-related processes for maintaining this visibility.

Key Visibility Processes

- Joint Total Asset Visibility
- Requisition Tracking
- Assets in Storage or in Process
- Assets in Transit (ITV)
- In-Theater Asset Visibility

a. Joint Total Asset Visibility. JTAV allows the combatant commander’s operational and logistics managers to determine and act on accurate information about the location, quantity, condition, movement, and status of Defense materiel. It includes assets that are in storage, in process, and in-transit. **Achieving total asset visibility** is an enormous undertaking, one that **involves all logistics disciplines and DoD components.**



In-transit visibility is quickly becoming a sophisticated fort-to-foxhole process

JTAV requirements are broken down into four areas: requisition tracking, visibility of assets in-storage or in-process, visibility of assets in-transit, and in-theater. GTN, AIS, and the Logistics Information Processing System (LIPS) help meet these requirements. In each case, a specified “data repository” serves as a central hub for asset visibility.

- **Requisition Tracking.** Services and DoD agencies use a variety of stovepipe automated systems that provide visibility over the status of requisitions. The JTAV system gathers information from these stovepipe systems and makes it available to the JFC.
- **Assets In Storage or In-Process.** The automated information system of each inventory control point (ICP) provides visibility of assets that are in-storage or in-process, with the latter defined as assets being procured or repaired at both

1 government and commercial maintenance facilities. ICP AIS provides TAV source
2 data to the JTAV system as described in DoD Regulation 4140.1-R, *DoD Materiel*
3 *Management Regulation* and specified below:
4

5 ●● Army - direct support authorized stockage lists.
6

7 ●● Navy - shipboard and major shore stations.
8

9 ●● Air Force - base supply.
10

11 ●● Marine Corps - installation supply and Marine Expeditionary Force support
12 activities.
13

The Persian Gulf War

The (asset visibility) problem can appear at any point in the distribution system. In the United States, vendor shipments--especially containerized and palletized cargo--made directly to the port of embarkation quite often were inadequately marked or documented. Shipments arrived at ports of debarkation with the destination classified or marked as Operation DESERT SHIELD. Even if adequately documented, pallets that contained materiel for several units were frequently broken down on arrival in theater and reconsolidated into shipments by destination unit. This almost always destroyed any visibility that may have existed pertaining to the pallet's contents. As a result, in-transit visibility was virtually nonexistent for some munitions, chemical warfare defense equipment, repair parts, and food shipments once they arrived in SWA.

First, the materiel distribution system involved thousands of people around the globe in many different organizations, inventory control points, depots, vendors, and transportation agencies. The distribution system was confronted with units spread across great distances, constantly changing unit locations, often with marginal communications, and with early saturation of the ground transportation system. Second, there was a lack of discipline in the use of the military's standard supply and transportation systems. In the case of Operation DESERT SHIELD, there were inadequate communication and automation capabilities in theater to receive and process status and transportation manifest information. Another reason contributing to the asset visibility problem was that manifest data received at water terminals was not shared quickly with materiel management centers because of the backlog that accumulated. Finally, RC port units and their MHE, including heavy forklifts, were not among the early-deploying elements for reasons discussed elsewhere. This led to large materiel accumulations at the ports, adding to the visibility problems and delaying delivery to already anxious users.

Though not without its problems, the logistics efforts of the United States and its allies were among the more successful in history. Moving a combat force halfway around the world, linking supply lines that spanned the entire globe, and maintaining unprecedented readiness rates, are a tribute to the people who make the logistics system work. Logisticians from all Services supported more than half a million US Service members with supplies, services, facilities, equipment, maintenance, and transportation.

SOURCE: Conduct of the Persian Gulf War,

DoD Final Report to Congress, April 1992

- **In-transit Visibility.** ITV is the ability to track the identity, status, and location of DoD unit and non-unit cargo (except bulk petroleum, oils, and lubricants); passengers; medical patients; and personal property from source of origin to the consignee or destination designated by combatant commanders, military Services, or DoD agencies during peace, contingencies, or war. Figure IX-2 summarizes the four critical functions of ITV.

ITV Critical Functions

- In-transit materiel visibility for all classes of supply.
- In-transit status of unit moves, sustainment supplies, equipment, and personnel.
- Identification of cargo and distribution assets underway in the transportation process.
- Two-way communication capability on specified distribution platforms.

Figure IX-2. ITV Critical Functions

ITV is accomplished using a variety of automated identification technology (AIT). AIT consists of process control hardware, application software, and hybrids that provide industry standard real-time data acquisition to enhance productivity. It includes bar codes, radio frequency identification, magnetic strips, smart cards, and optical laser cards.

1
2 **•Joint Total In-Theater Asset Visibility.** JTAV-IT provides combatant commanders
3 and deploying forces asset visibility. JTAV-IT interfaces with Service and Agency
4 logistics databases to capture visibility of assets held by theater forces, and with GTN to
5 provide visibility of shipments. This application uses Defense Automatic Addressing
6 System (DAAS) to exchange information with Logistics On-line Tracking System and
7 ICP on assets in-bound to the theater and available in CONUS. It can also obtain in-
8 transit data directly from GTN. JTAV-IT provides essential logistics planning and
9 analysis capabilities to include:

- 10
- 11 •• Supporting deliberate and crisis action planning.
 - 12
 - 13 •• Allocating critical assets.
 - 14
 - 15 •• Identifying and resolving in-theater logistics bottlenecks.
 - 16
 - 17 •• Monitoring the status and capability of strategic mobility assets.
 - 18
 - 19 •• Projecting force closure times.
 - 20
 - 21 •• Determining requirements for additional asset and lift capability.
 - 22
 - 23 •• Supporting theater doctrine, budget, and procurement decisions.
 - 24
 - 25 • In-theater TAV is available down to the using unit level. This enables the user to
26 have observation of the location and status of required repair parts, inbound forces
27 and personnel, sustainment, and equipment. The combatant command J-4 should
28 have trained operators to monitor JTAV-IT and provide planners and operators with
29 controls and data necessary to influence the logistics pipeline and the incremental
30 buildup of combat power. The combatant commander makes the final decision

(based on directive authority for logistics) concerning redirecting an inbound asset to another component should the components not reach agreement. To effectively operate a theater distribution system, a fully integrated database and communications network needs to exist internally within the theater to:

- Project distribution pipeline volume, flow rates, contents, and associated node and port handling requirements.
- Adjust flow volume, contents, and routing in response to operational requirements.
- Establish and maintain JTAV and ITV for sustainment materiel.
- Break-bulk, re-consolidate, divert, and control the flow of multi-consignee shipments.
- Retrograde, redeploy, and/or further deploy materiel.

During deployment, unit readiness and capability are critical elements of information. The combatant commander will rely heavily on the individual Service readiness reporting systems to determine the status of his assigned forces while in transit. With the capability JTAV offers, planners can determine the actual and projected readiness status of units. Visibility of the composition and status of WRM and pre-positioned materiel can assist planners in the development of COA analysis. Unit visibility, as it moves through the process, provides the data to assess current status against the execution plan.

4. Theater Distribution.

a. Joint theater distribution (TD) is the system that enables the combatant commander to deploy, employ, sustain, and redeploy assigned forces, non-unit materiel, and personnel to carry out

assigned missions. The system is a network of nodes and links tailored to meet the supported combatant commander's requirements. The network is overlaid upon existing HN infrastructure. The nodes and modes of transport that distribute the forces and sustainment are operated by a combination of US military, HN, allied, or contractor organizations. These organizations collect and process data into information and issuing instructions to ensure the commanders authoritative direction in the JOA is properly executed.

b. Theater distribution is the act of receiving supplies and equipment in a theater of operations and subsequently forwarding that cargo to a designated point of need. Effective TD calls for a comprehensive in-theater distribution system for deployment that is seamlessly integrated with strategic, operational, and tactical logistics systems. The intent of TD is to deliver critical supplies, under positive control, through a highly visible distribution pipeline, from source to combatant. The principles of theater distribution are shown below.

Principles of Theater Distribution

- Centralized management
- Optimized distribution system
- Velocity over mass
- Maximized throughput
- Reduced logistics response time
- Minimized stockpiling
- Seamless flow of resources

5. Contingency Contracting. Contracting and outsourcing can be effective force multipliers. Contracting can extend existing capabilities and provide augmentation support for CSS and CS functions on the battlefield such as: maintenance, transportation, supply and services, signal, engineer, and others. Several principles govern contracted support:

- Contractors do not replace force structure.
- Contractors are employed subject to METT-T.
- Contracted support must be integrated into the overall plan.
- Contractors usually do not provide support until approximately D+30.

JTF Contracting

"The contracting office coordinates contracting support requirements to preclude inter-Service competition for supplies or services in order to obtain effective utilization and advantageous prices through the consolidation of JTF requirements."

Joint Pub 5-00.2

JTF Planning Guidance and Procedures

6. Host Nation Support. Host nations own the infrastructure that US forces require to conduct JRSOI operations. They have access to national transportation resources that can assist and support US forces. The size and composition support force needed to conduct JRSOI operations depends upon the type, quality and extent of HN infrastructure and access granted for US use. Other HN infrastructure considerations are:

- It will often be necessary to share the infrastructure and facilities with HN/allied forces and organizations.
- Operators at airports, seaports, and other facilities usually will be local nationals. Therefore, the combatant commander should appoint a single point of contact for all US operations at the node to resolve priority and real estate issues among US units transiting the facility.

- Capacities of infrastructure and facilities allocated for US use may be less than planned for. HN military and commercial operations may compete for available assets thereby impeding the flow of forces and materiel.
- Host nations may not honor previously negotiated contracts due to competing demands, political, considerations, or for a variety of other reasons.
- United Nations agencies, international organizations, and non-governmental organizations may already be deployed to the JOA. Their capabilities may augment support provided by the HN.

The Government of Saudi Arabia's decision not to allow the US to launch possible airstrikes from Saudi airbases against Iraq during Operation Desert Thunder in early 1998 is a recent example of how political considerations can affect access to or from host nation facilities.

7. Theater Campaign Analysis Tools. Selecting which units will deploy and scheduling movements are accomplished using such tools as AMP and JFAST. Some examples of existing tools capable of theater analysis are ELIST, SUMMITS, BRACE, ICODES, PORTSIM, and NATO ADAMS. See Appendix D for additional details on deployment support tools.

APPENDIX A

SERVICE CAPABILITIES

The Services possess both similar and unique capabilities for performing support missions to facilitate JRSOI. This appendix lists and describes the functions of key units/elements that might be assigned to the Service component to support JRSOI operations. Annexes A-D to this appendix individually describe the capabilities of each Service component. This appendix is not intended to be relied upon for detailed planning but to serve as an information guide.

ANNEX A TO APPENDIX A

ARMY CAPABILITY

1. Purpose. This Annex describes key Army units and elements supporting JRSOI.

Organization or Activity	Parent Organization	Major Functions
Area Movement Control Detachment	Movement Control Agency	To expedite, coordinate, and supervise transportation support for units, cargo and personnel into, through, and out of an assigned geographic area, and to coordinate transportation movements, diversions, reconsignments, and transfers of units, cargo, and personnel.
Area Support Medical Battalion	Corps or EAC Medical Group	The ASMB provides Echelon I and Echelon II Health Service Support (HSS) to units located in the battalion's AO. It provides C2 for assigned and attached units and medical staff advice and assistance as required. Its functions are centered around three basic principles: treat and RTD; treat and hold (up to 72 hours); and treat and evacuate.
Area Support Medical Company	Headquarters and Support Area Medical Battalion	The ASMC has the overall mission to provide Echelon I and Echelon II HSS to units located in its AO. It is organized into a company headquarters, a treatment platoon, and an ambulance platoon.
Cargo Transfer Company	Transportation Terminal Battalion	To transship cargo at air, rail, truck, or sea terminals;

		and hubs, to temporarily hold and stuff/unstuff containers, to supplement cargo/supply handling operations at Combat Service Support activities in Corps and Division areas to alleviate backlogs, and to act as the A/DACG.
Engineer Battalion Headquarters Team	Corps or EAC Engineer Brigade	Provides command, control, and administrative support for separate engineer companies and engineer teams. This team can C2 three to seven engineer units.
Engineer Battalion, Combat Heavy	Corps or EAC Engineer Brigade	Provide planning for engineering tasks such as construction, rehabilitation, repair, maintenance, and modification of landing strips, airfields, command posts, main supply routes, supply installations, building structures, bridges and other related tasks as required, generally to the rear of the division.
Engineer Company, Construction Support	Engineer Brigade	Provide rock crushing, bituminous mixing, paving, and other construction support equipment with operators and thereby increase capabilities of an engineer group in major horizontal construction projects such as roads, storage facilities, and airfields.
Engineer Company, Pipeline Construction	Engineer Brigade	Provide personnel to support Engineer company pipeline construction, pipe stringing, pipe coupling, storage tank erection, and pump and dispensing

		facility construction. This company provides advisory personnel to three engineer companies engaged in pipeline construction.
Engineer Company, Port Construction	Engineer Brigade	Construct, rehabilitate, and maintain offshore facilities including mooring systems, jetties, breakwaters, and other structures required to provide safe anchorage for ocean going vessels. Construct, rehabilitate, and maintain piers, wharves, ramps, and related structures required for cargo loading and off loading. Construct facilities for RORO break-bulk, and containerized cargo handling. Maintain tanker discharge facilities including repair or replacement or existing POL jetties and submarine pipelines. Provide limited dredging and removal of underwater obstructions. Install off-shore petroleum discharge systems in support of Army LOTS operations where no naval units are assigned.
Engineer Detachment, Control and Support Dive	Engineer Brigade	Provides command, control, and support for one to six diving teams. Provide assistance on harbor and port clearance, development, and maintenance. Supports vessel damage control, maintenance, and repair; offshore petroleum distribution systems; and logistics over the shore

		operations.
Engineer Team, Fire Fighting Headquarters	Engineer Brigade	Plan fire-fighting and overall fire prevention programs. Control assigned or attached fire fighting teams.
Engineer Team, Fire Truck	Engineer Brigade	Fight fires in all types of facilities.
Engineer Team, Lightweight Dive	Engineer Brigade	Perform hydrographic surveys for bare beach LOTS operations. Inspect and repair underwater port structures. Perform ship husbandry. Assist in salvage operations.
Engineer Team, Power Line	Engineer Brigade	Can construct and maintain up to 60 miles of high-voltage electric power lines.
Engineer Team, Power Plant Operation and Maintenance	Engineer Battalion Headquarters	Operates and maintains one Army electric plant (500 kilowatts (kw) to 4.5 megawatts (mw)). It also assists in the installation of the electric plant.
Engineer Team, Real Estate	Engineer Battalion Headquarters	Performs functions incidental to the acquisition, utilization, and disposal of real property required by military forces.
Engineer Team, Utilities (4,000)	Engineer Battalion Headquarters	Maintains utilities and furnishes utilities service and repair, including maintenance of environmental equipment. It also provides insect control. Can support base, logistical-facility, and LOC development, operations, and maintenance for deployed US forces
Engineer Team, Water Truck	Engineer Battalion Headquarters	Transport up to 6,000 gallons of water per trip for fire fighting. Conduct fire fighting operations.
Finance Detachment	Finance Battalion	To provide finance services

		to the TAACOM Contracting and HNS Module and or the MTMC Port Management Module for paying contractors or HNS elements supporting US Forces.
General Support (GS) Maintenance Battalion	Corps or EAC Support Group	Provides GS and backup DS maintenance to supported units in the COMMZ on an area basis. Maintenance support is provided in the areas of: Communications Equipment Repair, Special Electronics Devices Repair, Utilities Equipment Repair, Power Generation Equipment Repair, Quartermaster/Chemical Equipment Repair, Metalworking, Small Arms Repair, Tank Turret Repair
Headquarters and Support Company Area Support Medical Battalion	Corps or EAC Medical Group	Provide medical planning, policies, support operations, and coordination of health services within the area of operations.
Heavy Boat Company	HHC, Transportation Terminal Battalion	To provide and operate landing craft to transport personnel, containers, vehicles, and outsized cargo during offshore discharge operations, to augment lighterage service in a port or harbor, inland or coastal waters, or between islands, and to provide lighterage service required in joint, amphibious, or other waterborne tactical operations.
HHC Railway Battalion	Transportation Railway Group	To Command, control, and technically supervise assigned or attached units and to operate and maintain

		railway facilities in a theater of operations.
HHC, Motor Transport Battalion	Transportation Group	To command, control, and technically supervise transportation units in all types of motor transport missions, including local haul, line haul, terminal clearance, or transfer operations.
HHC, Movement Control Battalion	Corps or EAC Support Command	Command, control, and technically supervise attached or assigned teams at EAC or Corps engaged in movement control and highway regulation and to provide movement management, highway regulation, and coordination of personnel/materiel movements into, within, and out of the theater.
HHC, Theater Transportation Command	Army Component Command	Provides command and control operational level of war transportation system and assist the ASCC meet his responsibilities in deployment/repositioning of forces, reception and onward movement of the force, positioning of facilities, movement control, distribution, and redeployment.
HHC, Transportation Composite Group	Transportation Terminal Brigade	To command and control all assigned operational-level transportation modal and terminal elements.
HHC, Transportation Terminal Battalion	Terminal Service Group	To command, control, and technically supervise operating units responsible for ocean water terminal operations and inland terminal operations.
LARC LX Detachment	Terminal Battalion	To transport beach

		paragraph equipment from ship-to-shore for bare-beach LOTS operations, and to move general cargo from ship-to-shore or to inland transfer points.
Logistics Support Vessel		To transport general and vehicular cargo world-wide (range 8,000 miles), to line haul large quantities of cargo and equipment (capacity 2,000 STONs) intra-theater, to provide tactical resupply to remote underdeveloped coastlines and inland waterways, to transport cargo from ship-to-shore in LOTS operations including those in remote areas with unimproved beaches, to provide support to unit deployment and relocation, and to transport cargo from deep draft ships to shore ports or to areas too shallow for larger ships.
Medium Boat Company	Terminal Battalion	To provide and operate landing craft to move personnel and cargo (ship-to-shore) during Army water terminal operations and waterborne tactical operations, and to augment naval craft during joint amphibious operations when required.
Movement Control Agency	Corps or EAC Support Command	To command, control and technically supervise attached or assigned units and teams engaged in movement control and highway regulation and to provide movement management, highway

		regulation, and coordination of personnel and materiel movements into, within, and out of the theater.
Movement Control Detachment, Cargo Documentation	Transportation Group	To provide cargo documentation for transshipping cargo in theater distribution system inland terminals (water, rail, air, and motor) and hubs.
Movement Regulating Detachment	Movement Control Agency	To observe, assess, and report progress of tactical and non-tactical transportation movements along main supply routes, to divert cargo and troubleshoot movement problems, to implement changes in unit moves and/or vehicle convoy routings to resolve movement conflicts, and to position ITV RF tag interrogators at theater distribution system movement regulating points.
Ordnance Company, Ammunition (DS) (PLS/MOADS)	Corps or EAC Support Group	Provide personnel and equipment to operate up to three ASPs and one ammunition transfer point to resupply conventional ammunition in support of force generation operations. Perform direct support maintenance and limited modification of conventional ammunition, components, and containers. Provide emergency destruction of unserviceable conventional ammunition. Provide assistance for explosive ordnance disposal (EOD) personnel in the

		routine destruction of unserviceable conventional ammunition.
Ordnance Company, Non-divisional Maintenance (DS)	Corps or EAC Support Group	Provide maintenance on non-divisional equipment to include: automotive, communications-electronics, construction, power generation, chemical, armament, refrigeration, small arms, and general repair. Maintain an ASL and repairable exchange list, to include receipt, storage, and issue of repair parts for all supported unit requirements. Provide wheeled vehicle recovery for supported units
Port Movement Control Detachment	Port Support Activity	To expedite the port clearance of cargo and personnel arriving or departing by air or sea, to coordinate (in conjunction with the port commander) transportation support and highway clearance for theater onward movement, and to provide in-transit visibility of units, cargo, and personnel transiting an air or sea port.
Quartermaster Company (Force Provider)	EAC or Corps Support Group	Provide bare base billeting; dining; shower; latrine; laundry; and morale, welfare, and recreation (MWR) support for approximately 3000 personnel on a 24 hour basis.
Quartermaster Battalion	EAC or Corps Support Group	Provide bulk water and petroleum products to a theater of operations.
Quartermaster Group	EAC or Corps Support Command	Provide GS bulk water, petroleum products, and

		mortuary affairs to a theater of operations.
Rail Operating Company	Transportation Railway Battalion	To operate railway locomotives and trains, maintain and repair railway track, perform running inspections on rolling stock and diesel-electric locomotives, and perform organizational maintenance on rolling stock and diesel-electric locomotives.
Special Troops Battalion	EAC or Corps Support Group	To provide theater level services and mortuary affairs.
TC Detachment, Trailer Transfer Point	HHC, Motor Transport Battalion	To operate a transfer point in conjunction with motor transport line haul operations by receiving, segregating, assembling, reporting, vehicle and cargo arrivals and departures, to inspect, document, and dispatch loaded or empty trailers for convoys, to provide maintenance (emergency repairs) on trucks and trailers, and to maintain POL dispensing facilities for refueling operating equipment.
Terminal Detachment, Port Cargo Operations	Transportation Terminal Battalion	To augment transportation cargo transfer company sea port operations, to discharge or load in any combination up to 1,500 STONs of break-bulk cargo and/or 300 containers per day in a LOTS operation or to discharge or load in any combination up to 2,500 STONs of break-bulk cargo or up to 500 containers per day in a fixed sea port operation.

Terminal Team, Automated Cargo Documentation	Transportation Terminal Battalion	To document cargo being loaded or unloaded in a fixed sea port operation for up to four ships per day or in a LOTS operation for up to two ships per day.
Terminal Team, Contract Supervision	Transportation Terminal Battalion	Under the operational control of the TAACOM Contracting and HNS Module/or the MTMC Port Management Module, negotiate, and administer contracts for stevedoring, loading, unloading, terminal clearance, and inland waterway and highway transport operations.
Terminal Team, Freight Consolidation and Distribution	Transportation Group or Area Support Group	To process up to 100 less-than-car-load (LCL) shipments daily in a consolidation and distribution (CD) point, barge site, rail, truck, or water terminal, to stuff or unstuff up to 25 20-foot containers daily, and to install RF tag interrogators at theater CD points/hubs.
Transportation Harbormaster Operations Detachment	Transportation Terminal Battalion	To provides operational control for vessel and harbormaster operations and related functions within a water terminal operation area, fixed port, or LOTS on a 24 hour basis.

ANNEX B TO APPENDIX A

NAVY/COAST GUARD CAPABILITY

1. Purpose. This Annex describes key Navy and Coast Guard units and elements supporting JRSOI.

Organization or Activity	Parent Organization	Major Functions
Advanced Base Functional Components (ABFC)	Advanced Support Bases (ASB)	A rapid response grouping of personnel, facilities, equipment, supplies, and materiel designated to provide Navy Component Commanders with the capability to meet shore-based logistics requirements in emerging operational scenarios.
Advanced Logistics Support Site (ALSS)		A task-organized logistics command whose primary mission is to facilitate shore based support to the fleet. It possess a full capability for receiving, staging, and forwarding supplies, munitions, petroleum, mail, and personnel required to support deployed units operating in the area.
Advanced Support Base		The principal organization for performing naval RSOI functions. In expeditionary logistics, ASBs are established either as advanced logistics support sites (ALSS) or forward logistics sites (FLS). ASBs are typically comprised of mission oriented units named advanced based Functional components (ABFC).
Amphibious Construction	Naval Beach Group (NBG)	Provides designated

Battalion (PHIBCB)		elements to the commander, supports the naval forces during the initial assault and later phases of the operation, and assists the shore party. Can also construct a basecamp; and perform limited construction as necessary to enhance the offload and throughput of cargo and equipment, both through fixed ports and over the shore. Skilled in floating and elevated causeway construction, installation and operation of ship-to-shore fuel systems, and assembly and operation of self-propelled pontoon barges for cargo/equipment transfer operations. Can also augment water terminal operations, LOTS, and onward movement.
Assault Craft Unit (ACU)	NBG	Provides, operates, and maintains assault craft. May provide lighterage for LOTS operations as directed by higher authority. Provides LCU, LCM, and LCAC support for ship-to-shore movement, maintenance, and support elements for intermediate-level craft repair ashore, and administrative control of LCU, LCM, and LCAC lighterage.
Beachmaster Unit (BMU)	NBG	Conducts beach party operations to facilitate landing and moving supplies across the beach. Capabilities include control of landing ships, lighterage, and amphibious vehicles in

		the vicinity of the beach from surf line to high watermark, determining and advising of suitability for landing of amphibious vehicles, craft, ships, and beaching causeways, control the salvage of lighterage, provide limited assistance in local security and beach defense, install causeway and LST beaching range markers and lights, maintaining observation of wind and surf conditions, and coordinating surf transit portion of reembarkation of equipment, troops, and supplies.
Cargo Afloat Rig Team (CART)	ABFC	Capable of embarking on modularized container delivery system(MCDS) configured ships and all classes of cargo, including ordnance, general stores, and provisions. CARTs are also trained to perform connected replenishment (CONREP) and vertical replenishment (VERTREP) operations.
Forward Logistics Site (FLS)		Provides for the reception and forwarding of mail and selected high priority materiel and personnel from the ALSS to units operating at sea in the area by either rotary and/or fixed wing aircraft.
Freight Terminal Unit (FTU)	ABFC	Trained to maintain and operate MHE and CESE, prepare TCMDs, provide HAZMAT certification, operate WPS and RCAPS, and provide intransit

		visibility for all classes of cargo, regardless of transportation mode.
Logistics Task Force (LFT) Atlantic/Pacific (LFTLANT/PAC)	CINCLANTFLT/ CINCPACFLT	Coordinates peacetime or crisis response Naval Reserve shore-based logistics asset requirements (personnel and/or equipment) in support of Joint Task Force Commanders, Fleet CINCs, or Navy Component Commanders. Assists Navy logistics planners in accessing and analyzing TPFDD and type unit (TUCHA) data, and in tailoring ABFCs to the specific requirements of an operational or contingency plan.
Naval Beach Group (NBG)	Commander Amphibious Task Force (CATF)/Naval Forces (NAVFOR)/ Naval Support Element (NSE) Maritime Pre-positioning Force (MPF)	The mission of the NBG is to put landing force equipment and supplies ashore during and following an amphibious assault or an MPF offload.
Naval Component Command (NCC)/NAVFOR	Unified CINC/Joint Force/Joint Task Force (JTF)	Responsible for Navy logistics in the JOA.
Naval Construction Battalion Unit (CBU)	Naval Construction Regiment (NCR)	Provides construction, operational, and maintenance support of rapidly deployable 250-bed or 100-bed combat zone, disaster relief, or low-intensity conflict hospitals. When necessary, two CBUs are combined to support a 500-bed or larger fleet hospital construction mission.
Naval Construction Regiment (NCR)	Marine Forces (MARFOR)/ Marine Expeditionary Force (MEF)	Usually linked to Marine Corps contingency plans, to provide the Fleet Marine

		Force (FMF) and MAGTFs extensive construction capabilities not inherent to Marine engineer forces. They provide ammunition supply points, expeditionary airbases, operations buildings, erection of combat zone hospitals, port improvement or construction, hardening petroleum/ oil/lubricant (POL) storage areas, warehouses, complex security fencing, paved roads, and high voltage electrical distribution. Typical projects also include follow-on enhancement work, which may have been initiated by other USMC engineer units.
Naval Mobile Construction Battalion (NMCB)	NCR	The commensurate mission of an NMCB is to sustain nearly round-the-clock vertical and horizontal construction effort while simultaneously defending projects and performing maintenance on assigned equipment. Can also augment water terminal operations, LOTS, and onward movement.
Naval Reserve Cargo Handling Battalion (NRCHB)	NBG	Provides technical and supervisory cargo handling capability to fleet and area commanders in support of worldwide naval operations.
Naval Service Component Command (NCC) Commander-in- Chief, Atlantic Fleet (CINCLANTFLT)/CINC, Pacific Fleet	Unified CINC (CINCUSACOM/ PACOM/EUCOM/ CENTCOM)	Responsible for theater Navy logistics, including common and operational control of navy logistic forces in theater.

(CINCPACFLT)/CINC, U. S. Navy Europe (CINCUSNAVEUR)/CINC Navy Central Command (CINCCENT)		
Naval Underwater Construction Team (UCT)	NCR	Provides a wide range of underwater construction capabilities, including construction, inspection and repair of ocean and waterfront facilities, underwater battle damage assessment/repair, and underwater construction support of amphibious operations.
Navy Cargo Handling and Port Group (NAVCHAPGRU) Naval Reserve Cargo Handling Training Battalion (NRCHTB)	NBG	Provides MPS and AFOE cargo handling; heavy lift marine crane operations; providing stevedores and C2 personnel capable of loading and discharging all classes of cargo, including munitions, in a developed or nondeveloped port or in stream; operating a limited marine-cargo terminal in support of ship loading and discharging operations; and providing managerial and technically skilled personnel capable of loading and discharging cargo from commercial and military aircraft and operating a limited air cargo terminal.
Navy Inland Undersea Warfare Group Detachment (IUWGRUDET)	NCC	Provides expeditionary C3 support to the Joint Operational Commanders exercising OPCON of assigned MIUWU's and other Naval Coastal Warfare units. IUWGRUDET's will deploy with the Mobile Ashore Support Terminal

		(MAST II) system.
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Navy Inshore Boat Unit (IBU)	NCC	Used for patrol and interdiction.
Navy Mobile Inshore Undersea Warfare Unit (MIUWU)	NCC	Surveillance and C3 elements that control entry and egress into coastal and riverine anchorages and exclusion . They provide seaward radar and acoustic surveillance, control patrol craft, and vector them to interdict surface and subsurface contacts.
Navy Overseas Air Cargo Terminals (NOACT)	ABFC	Capable of maintaining 24 hour aircraft uploading and downloading operations. They accept, sort, prioritize, and palletize on 463L pallets all air cargo received. They also monitor and report air cargo status, and prepare air cargo documentation. NOACTs are trained in the latest AIS, HAZMAT certification and documentation, as well as ATAC functions for DLRs and retrograde materiel.
Numbered Fleet Commander (Commander Second Fleet [COMSECONDFLT]/ COMTHIRDFLT/ COMFIFTHFLT/ COMSIXTHFLT/ COMSEVENTHFLT)	CINCLANTFLT/ CINCPAC/	Responsible for logistics support to afloat units.
US Coast Guard (USCG)	NCC/ Naval Warfare Commander (NWC)	Provides units that are trained, organized, and equipped to provide deployable port operations, security, and defense; maritime interception operations (MIO); and environmental defense operations. When requested,

		provides Puss; high endurance cutters with aviation detachment; patrol boats; visit, board, search and seize teams; and environmental strike teams. These units assist the RSOI commander by providing elements trained in port security and port safety to help ensure the security of vessels, port facilities, and cargo and safety of cargo operations during RSOI operations. USCG forces work in conjunction with other Naval Coastal Warfare assets to ensure safety and security of national assets at the end points of the LOCs and the SPODs.
US Coast Guard Port Security Unit (PSU)	USCG	Provides the RSOI commander with teams capable of evaluating and overseeing physical security measures on waterfront facilities, performing surveillance duties, and establishing and enforcing restricted access areas, security zones, and safety zones in order to control personnel or vessel access to sensitive portions of a port area or complex. The PSU will also provide teams to oversee and supervise the transfers of military and/or commercial explosives, hazardous materials in bulk or packages, and POL cargoes.

		provides Puss; high endurance cutters with aviation detachment; patrol boats; visit, board, search and seize teams; and environmental strike teams. These units assist the RSOI commander by providing elements trained in port security and port safety to help ensure the security of vessels, port facilities, and cargo and safety of cargo operations during RSOI operations. USCG forces work in conjunction with other Naval Coastal Warfare assets to ensure safety and security of national assets at the end points of the LOCs and the SPODs.
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ANNEX C TO APPENDIX A

AIR FORCE CAPABILITY

1. Purpose. This Annex describes key Air Force units and elements supporting JRSOI.

Organization or Activity	Parent Organization	Major Functions
Aerial Port Squadron/Mobility Flight	AMC	Plan aircraft loads, process & document personnel and cargo, load and service airlift aircraft.
Aerial Port Squadron/Mobility Flight (APS)	AMC	Provides cargo/passenger service at SAIS.
Aeromedical Evacuation Liaison Team (AELT)	AMC	Communicate/coordinate aeromedical evacuation requirements between medical facilities and the Global Patient Regulating Center.
AF Contingency Supply Squadron (AFCSS)	Air Component Command	Provides support to COBs - those units attached to a HN base, or bare base environment. The AFCSS supports a major command or the supported theater commander. AFCSS coordinates support; establishes accounts; sources and tracks supplies and parts; and financial management capability.
Airlift Clearance Authority	Air Component Command	Provide clearance for theater airlift of cargo from SAIS
Harvest Eagle	Air Component Command	An air transportable, tent based system of housekeeping support facilities designed to provide basic living accommodations, messing and hygiene support. Each

		1100-person housekeeping set can be segmented into two 550- person self sustaining packages.
Harvest Falcon	Air Component Command	An air transportable system consisting of hardwall shelters, tents, equipment, and vehicles designed for worldwide support of personnel and aircraft under base conditions. Provides direct mission and housekeeping support facilities for up to 55,000 personnel and 750 aircraft at up to 15 separate beddown locations. Harvest Falcon is sized into 50 1100-person bare base housekeeping sets, 15 flightline initial sets and 25 flightline follow-on support packages and 15 industrial operations support sets.
Numbered Air Force (NAF)	Air Component Command	Principal theater logistics component.
Prime BEEF (Base Engineer Emergency Force)	Air Component Command	Supplements in-place base civil engineer units by establishing, sustaining, and restoring base infrastructure.
Red Horse	Air Component Command	Wartime structured units providing a heavy engineer capability. Missions include the preparation of airfields, taxiways, and constructing HARVEST FALCON and HARVEST BARE deployable support packages, heavy damage repair, and road construction, facility construction and a wide range of engineer functions.
Tanker Airlift Control Element (TALCE)	AMC	Control, coordinate, and monitor US airlift

		operations at SAIS.
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ANNEX D TO APPENDIX A

MARINE CORPS CAPABILITY

1. Purpose. This Annex describes key Marine Corps units and elements supporting JRSOI.

Organization or Activity	Parent Organization	Major Functions
Air Liaison Element (ALE)	Marine Expeditionary Force (MEF)/Marine Air Ground Task Force (MAGTF)	Coordinates between the arriving Marine Forces (MARFOR)/ MAGTF and Arrival Airfield Control Group (AACG).
Arrival and Assembly Operations Elements (AAOEs)/ Unit Movement Control Centers (UMCC)	AAOG/FMCC	Provide operational C2, coordinate and monitor arrival of personnel and equipment, direct and control the distribution of sustainment and equipment to the to the unit, and monitor/coordinate onward movement. The AAOEs are temporary organizations that deactivate once MPF operations are complete. The UMCCs are permanent organizations that execute these functions should there not be an MPF operation and assumes movement control and logistics functions upon disestablishment of the AAOEs during MPF operations.
Arrival and Assembly Operations Group (AAOG)/ Force Movement Control Center (FMCC)	MEF/MAGTF	Provides operational C2, coordinate and monitor arrival of personnel and equipment, direct and control the distribution of sustainment and equipment to the to the Force, and

		monitor/coordinate onward movement. The AAOG is a temporary organization that deactivates once MPF operations are complete. The FMCC is a permanent organization that executes these functions should there not be an MPF operation and assumes movement control and logistics functions upon disestablishment of the AAOG during MPF operations.
Beach Operations Group (BOG)	LMCC	A task organization under the operational control of the LMCC, for support of an MPF beach off-load.
Combat Service Support Detachment/Element(CSSD /CSSE)	FSSG	Provides direct logistics support to an element of the MARFOR/MAGTF.
Combat Service Support Operations Center (CSSOC)	FSSG	Primary CSS coordination center for units conducting RSOI.
Force Service Support Group (FSSG)	MEF	Provides direct and general logistics support to the MEF.
Logistics Movement Control Center (LMCC)	FMCC	Monitors unit arrival into the A/SPODs, provides movement control of arriving equipment/personnel, controls the throughput process, and coordinates transportation requirements beyond organic capability.
Marine Logistics Command (MLC)	Marine Component Command/MARFOR	Employed during Major Regional Contingencies (MRC)s to provide operational logistics support, which may include RSOI operations. Establishes the infrastructure, systems and

		procedures for the MARFOR/MAGTF units to utilize while undergoing RSOI.
Port Operations Group (POG)	LMCC	A task organization under the operational control of the LMCC, for support of ship debarkation.
Railhead Operations Group (RHOG)	LMCC	A task organization under the operational control of the LMCC, for support of rail operations.
Rail Liaison Element (RLE)	MEF/MAGTF	Coordinates between the arriving MAGTF and RHOG.
Sea Liaison Element (SLE)	MEF/MAGTF	Coordinates between the arriving MAGTF and Port Operations Group (POG).
Survey Liaison Reconnaissance Party (SLRP)	MEF/MAGTF	A task organization formed from the MAGTF and NSE, which is introduced into the objective area prior to the arrival of the main body to conduct initial reconnaissance, establish liaison with in-theater authorities, and initiate preparations for the arrival of the main body.

1
2

APPENDIX B

JRSOI SUPPORT STRUCTURE

This appendix describes select elements of the physical structure, facilities and areas, necessary to support JRSOI.

Reception Facilities

a. Aerial port of debarkation/embarkation. A US or host nation military or civilian facility designated by a unified command to be used to unload or load elements of a force and its sustainment to support a military operation. The complex contains the facilities and organizations needed to perform the following functions as required: (1) operations of a joint air terminal; (2) coordination of movement, parking, servicing, and maintaining strategic airlift; (3) loading and unloading of materiel and personnel; (4) providing life support and assistance to drivers and other personnel while awaiting transportation or when delivering equipment to the joint air terminal or awaiting arrival of equipment; (5) providing technical assistance to Army aviation units deploying through the complex; (6) assisting deploying units and non-unit personnel and materiel with onward movement from the complex; (7) providing movement control into, within, and out of the complex; and (8) air-to-air interface (AAI) operations. Prior coordination for use of the facilities is the responsibility of the designating command

b. Air-to-air interface site. The location at an air terminal where personnel and/or materiel arriving by either strategic or theater airlift are transferred to theater or strategic airlift for onward movement to an intermediate or final destination. The AAI site will be designated by the combatant commander, in coordination with the HN and USTRANSCOM.

c. Contingency operating location. A host nation airfield, generally located within the area of operations of a contingency, used to support air operations without establishing full support

1 facilities. The base will be designated for use by the combatant commander in coordination with
2 the HN, Service components, and allied forces operating in the area. It may be used for
3 temporary or extended operations, but will require support from a main operating base during
4 extended operations.

5
6 **d. Main operating base.** An airfield located within an HN, under the control of US forces, that
7 has a mature support organization, stores of war reserve materiel, and is capable of receiving and
8 operating augmentation aircraft, supporting organizations, and non-unit materiel during
9 contingency or wartime operations. The base will have a Service air terminal and be designated
10 for US use by the combatant command, in coordination with the HN, appropriate Service
11 components, and USTRANSCOM. The base may be required to provide support to designated
12 contingency operating locations during military operations.

13
14 **e. Seaport of debarkation/embarkation.** A US or HN military or civilian facility designated
15 by a combatant commander to be used to unload or load elements of a force and its sustainment
16 to support a military organization. The complex contains the facilities and organizations needed
17 to perform the following functions as required: (1) operation of a joint water terminal; (2)
18 coordination of movement, berthing, chandlery, and husbanding for strategic sealift; (3)
19 loading and unloading of materiel and personnel; (4) providing life support and assistance to
20 drivers delivering equipment to the joint water terminal or awaiting arrival of equipment; (5)
21 providing technical assistance to Army aviation units deploying through the complex; (6)
22 assisting deploying units with onward movement from the complex; (7) providing movement
23 control into, within, and out of the complex; and (8) sea-to-air interface (SAI) operations. Prior
24 coordination for use of the facilities is the responsibility of the designating command

25
26 **f. Sea-to-air interface site.** The location of an air terminal, in close proximity to a seaport of
27 debarkation, where unit personnel and equipment and/or non-unit related cargo is translifted from
28 strategic sealift to theater airlift for onward movement to destinations along the theater lines of
29 communication. The SAI site will be designated by the supported combatant command, in
30 coordination with the HN and USTRANSCOM.

1
2 **g. Inland waterway port.** An established or existing location with facilities for mooring, cargo
3 loading and unloading, dispatch and control, and repair and service of all craft capable of
4 navigating the waterway.

5
6 **Holding/Assembly Areas**

7
8 **a. Aerial port of debarkation holding area.** A site in the vicinity of the APOD, designated by
9 the aerial port commander in conjunction with the HN, where life support is provided to arriving
10 military personnel of deploying units or non-unit related personnel and civilian personnel while
11 awaiting onward movement to final destination.

12
13 **b. Marshaling area.** A location in the vicinity of a reception terminal or pre-positioned
14 equipment storage site where arriving unit personnel, equipment, and accompanying supplies are
15 reassembled, returned to the control of the unit commander, and prepared for onward movement.
16 The joint complex commander designating the location will coordinate the use of the facilities
17 with other allied commands and the HN, and will provide life support to the units while in the
18 marshaling area.

19
20 **c. Cargo holding/handling area.** A designated location for temporarily holding: (1) arriving
21 cargo until onward movement to the consignee can be arranged; (2) departing cargo until
22 strategic transportation can be arranged; or (3) where cargo pallets are built or broken down.

23
24 **d. Vehicle assembly area.** An area in the vicinity of a reception facility where unit drivers and
25 vehicles are assembled for onward movement by convoy, rail, or theater airlift.

26
27 **e. Convoy assembly area.** An area in the vicinity of a reception terminal where arriving unit
28 equipment and personnel are assembled in convoys for onward movement to intermediate or
29 final destinations.

1 **f. Container holding/handling area.** A designated location, normally located near a seaport,
2 for holding (1) arriving containers until onward movement to the consignee can be arranged; (2)
3 departing containers until strategic transportation can be arranged; or (3) where container
4 transshipment or intermodal operations occur.

5
6 **g. Frustrated cargo holding area.** A designated location for temporarily holding frustrated
7 cargo until onward movement instructions can be clarified. Frustrated cargo consists of any
8 shipment of supplies and/or equipment that while en route to destination is stopped prior to
9 receipt and for which further disposition instructions must be obtained. Frustrated cargo areas
10 are normally located at each reception facility.

11
12 **h. Helicopter assembly area.** An area in the vicinity of a reception facility where helicopters
13 are assembled and prepared for flight, test flown, and are flown with crews to the helicopter
14 marshaling area.

15
16 **i. Staging area.** A location designated by the geographic combatant command, in coordination
17 with the HN and Service component, where units are staged. The staging area will provide
18 necessary facilities and support to enable the major combat formation to achieve readiness for
19 combat operations.

20
21 **j. Tactical assembly area.** A location designated by the geographic combatant command, in
22 coordination with the HN and Service component, where a combat formation will transfer
23 authority to its gaining command and from which it can be integrated into the force and be
24 tactically employed. During combined operations, the TAA will be coordinated with the
25 appropriate allied command.

26
27
28 **En route Facilities**
29

1 **a. Aircraft en route support sites.** Sites that provide security, life support to transient air
2 crews, services for aircraft and helicopters, and limited specialized maintenance for aircraft or
3 helicopters.

4
5 **b. Convoy support sites.** Sites along the main supply routes that provide security, life support
6 for drivers, fuel, limited maintenance support, and vehicle recovery.

7
8 **c. Trailer transfer points.** Locations established along the lines of communication by the joint
9 (or combined) movement center to support line-haul operations. Loaded or unloaded trailers are
10 received, segregated, assembled, and dispatched at the point IAW priorities established by the
11 joint movement center. The site usually provides emergency refueling and maintenance support.

12
13 **d. POL transfer point.** A location where POL can be transferred between two modes.

14
15 **e. Pre-positioned equipment sites.** Sites where war reserve materiel is stored and maintained
16 for use during a contingency or exercise. This materiel is often configured as unit sets and may
17 be maintained by US military, US civilian, contractors, or HN personnel.

18
19 **f. Pre-stock supply points.** Sites designated by a combatant command where stocks of
20 essential materiel needed to replenish accompanying supplies or to sustain units during
21 deployment and military operations are stored.

22
23 **g. Railheads.** Points on a railway where loads are transferred between trains and other means
24 of transport, and the point where tactical control of the personnel, materiel, or units passes to or
25 from the node commander to the movement control system.

APPENDIX C

SAMPLE JRSOI APPENDIX FOR OPORD

APPENDIX _ (BUILDING COMBAT POWER) TO ANNEX _ (OPERATIONS) TO OPORD

1. Purpose. This appendix identifies the timelines, concept and end state desired for the building of combat power (JRSOI).

2. General. Building combat power during the initial portion of this operations requires the following actions:

A. Force protection accomplished by the establishment of a rapid reaction force.

B. Generating combat capabilities through the generation of combat, CS, and CSS units reporting requirements and missions-ready criteria. These will be monitored based on the smallest operational/employable element.

3. Timeline. D-day is defined by the __ Alert order: XX January 200__.

4. Concept.

A. Definition of combat power. In the case of building and tracking combat power, the unit will monitor the generation combat power based on four components:

MOVEMENT. The ability to move on the battlefield to position forces at decisive points to achieve surprise, psychological shock, physical momentum, massed effects, and moral dominance.

1 FIREPOWER (ESSENTIAL SYSTEMS): lethal and nonlethal. Lethal firepower provides
2 destructive force through direct and indirect fire. Nonlethal firepower does not engage in direct
3 or indirect fires, but it is essential in defeating the enemy's ability and will to fight. Nonlethal
4 firepower provides systems and procedures for locating, identifying, and tracking targets.

5
6 SUSTAINMENT and FORCE PROTECTION (e.g., medical assets, NBC, resupply
7 assets). The ability to conserve the fighting potential of the force and resupply the force so that
8 commanders can apply it at the decisive time and place. Operational individual and collective
9 NBC systems provide force protection. Preventive maintenance and quick repair of equipment
10 are important elements of sustainment.

11
12 COMMAND and CONTROL (e.g., communications, maps, briefs). The ability to
13 influence operations, synchronize combined arms, and achieve unity of effort. Communications
14 are inherent in command and control. Signal planning provides systems to pass critical
15 information at decisive times.

16
17 B. Generation of Combat Power. There are several force packages for building combat
18 power. The three force packages of combat power are defined below in terms of operational
19 elements:

20
21 **Force Package 1 - (Example)**

22 Military Police Platoon (BDE is C2 Element)

23 Stinger Team

24 Chemical Reconnaissance Squad

25 Decontamination Section

26 Medical Evacuation Section

27 Maintenance Team

28
29 **Force Package 2 - (Example)**

30 Individual Ready Company (IRC) M2/M 1 Company/Team (C2 Element)

Mortar Platoon
M109 Platoon
Engineer Platoon
Bradley Scout Fighting Vehicle Section
Stinger Section
Chemical Reconnaissance Section
Decontamination Platoon
Medical Platoon
Company Maintenance Team

Force Package 3 - (Example)

Brigade - composed of 2 DRFs
2 x M2/M1 Company/Team
2 x M1/M2 Company Team
Mortar Platoon
Scout Platoon
M109 Battery
Engineer Company
BSFV Platoon
Chemical Reconnaissance Section
GSR Section

RRF (Force Protection). The ready reaction force (RRF) will execute force protection missions for the brigade size unit as it continues to build combat power, prepares for follow-on missions, and while the IRC continues to stage and prepare for initial JTF missions. When mission ready, the IRC will be prepared to execute missions. The unit will continue to track the combat power of the Force Package 3 while force protection missions are ongoing.

C. Force Protection/IRC Missions. Commanders will use these for planning.

1
2 a) Route Reconnaissance. Route reconnaissance can be executed by any of the three
3 force packages of the RRF. Force Package 1 forces will only be used if the threat in the area
4 consists of light-skinned threat vehicles or guerrilla-type forces. A full route reconnaissance will
5 be executed to standard by providing a chemical reconnaissance of the route followed by a
6 detailed analysis, including all structures.

7
8 b) Checkpoints. A checkpoint is a self-contained position located on a road to
9 observe and control movement into and out of a security or buffer zone. The RRF will execute
10 hasty checkpoints to break up traffic and to determine the main avenues of approach into the
11 security zone and then establish deliberate checkpoints (IRC mission).

12
13 c) **Battlefield Circulation Control (BCC)**. BCC can include the above missions or
14 general protection of the brigade security zone. Depending on the threat level, the RRF might
15 execute missions such as escorting combat vehicles to the ammunition supply point to be
16 uploaded, or escorting VIPs within the brigade area of operations.

17
18 2) **IRC (Tactical Force Projection)**. A designated unit will have the responsibility for building
19 and tracking the IRC. All reports will be IAW unit SOP.

20
21 a) Route Reconnaissance. A typical scenario might be that an MP platoon and Fox
22 reconnaissance vehicle conduct a route reconnaissance, while the IRC prepares to follow as a
23 convoy security force.

24
25 b) Deliberate Checkpoint. In the initial stages of the deployment, the RRF will
26 execute hasty checkpoints to determine the main avenues of approach. The goals of the
27 checkpoints are varied depending on the overall mission. They can control traffic into and out of
28 a newly established security zone, disrupt enemy movements in the host nation, capture weapons,
29 or even capture a specific individual.

1 c) Escort. Once the brigade security zone increases in size, the IRC could be called
2 upon to escort vehicles or convoys for relief purposes. The IRC will conduct these missions
3 concurrently with the RRF unit. While the IRC secures the convoy, the RRF searches vehicles to
4 ensure that no contraband is being transported.

5
6 d) Security Mission. Depending on the state of the security zone, threat forces might
7 conduct limited raids/ambushes to harass and interdict US or HN forces. Security missions may
8 include deploying chemical assets against a chemical threat (SCUD attack), medical assets to
9 help evacuate HN civilians to a secure area, or a combination of all the assets.

10
11 e) Clear TAA. In preparation for escalation of hostilities and the possible transition to
12 combat operations, the IRC executes a route reconnaissance, reconnaissance of a possible brigade
13 TAA, and secures the TAA until the brigade closes on the AA. The RRF, in conjunction with
14 the IRC, provides BCC by establishing traffic control points and ensuring the route remains
15 secure.

16
17 **4. Conclusion.** Once combat power is established and the brigade size unit transitions to combat
18 operations, the tracking and recording methods can be used by units internally to ensure that they
19 maintain and sustain all the necessary qualities of combat power.

APPENDIX 4 (MISSION-READY CRITERIA) TO ANNEX C (OPERATIONS) TO OPORD

1. Combat power is built along these four elements: command and control, movement, firepower, and force protection/sustainment. The headquarters tracks the ability of our combined arms team to shoot, move, communicate, and sustain using these elements. Successful completion of the critical tasks allows subordinate units to establish combat power. Units will focus on leadership by setting up conditions for effective C2. Unit's execution of vehicle and equipment draw, with thorough preventive maintenance checks and services, will provide them the ability to maneuver. Units prepare firepower with meticulous pre-combat checks and inspections. The goal is force buildup and the attainment of overwhelming combat power.

2. COMMAND and CONTROL: Command and control is the ability to influence operations, synchronize combined arms, and achieve unity of effort. Communications are inherent in C2. Signal planning provides systems to pass critical information at decisive times. The following items are tasks to subordinate units to set conditions for effective C2:

A. Accountability. Commanders will ensure 100-percent accountability of personnel and equipment.

B. Troop-Leading Procedures (TLP). Commanders will initiate TLPs and issue warning orders.

C. Conduct Road-to-War Brief and Threat Brief for all Soldiers. Soldiers must understand the area of operations, and enemy and friendly situations.

D. Conduct Rules of Engagement (ROE) Brief for all Soldiers. Soldiers must fully understand levels of force authorized.

1
2 E. Conduct Risk Assessment. Leaders will execute at every level.

3
4 F. Draw and Distribute Maps.

5
6 G. Establish Command Posts. CPs track subordinate units and submit reports to higher.

7
8 H. Communication.

9
10 1) Conduct preventive maintenance checks and services on all communications gear. All
11 deficiencies must be corrected.

12
13 2) Draw and distribute Sirs/ANCDs. Set frequencies and load secure variables.

14
15 3) Establish/enter communications nets. Responsible HQ sets nets, subordinate units
16 enter nets.

17
18 4) Conduct Communications Checks (Vehicle intercom, CVCs, Long distance radio). All
19 checks must be successful.

20
21 5) Set up EPLRS/SATS. All transmitters and terminals must be operational.

22
23 6) Reports.

24
25 a) Commander's Report and Sensitive Items Report as per TACSOP.

26
27 b) Mission-Ready Report hard copy to TOC 0800 and 1600 daily.

28
29 3. MOVEMENT: The ability to move on the battlefield to position forces at decisive points to
30 achieve surprise, psychological shock, physical momentum, massed effects, and moral

1 dominance. The following items are tasks to subordinate units to provide them the ability to
2 move.

3
4 A. Draw Vehicles.

5
6 1) Conduct operator level PMCS on all Pre-positioned Equipment. This includes weekly
7 and monthly checks. All deficiencies must be corrected.

8
9 2) Conduct Road Test. Unit will perform during preventive maintenance and checks. .
10 All vehicles will be test-driven and all equipment will be test-run. All deficiencies must be
11 corrected.

12
13 B. Draw Class III Bulk and Package.

14
15 C. Upload Equipment. Vehicles will be loaded IAW load plans.

16
17 D. Report REDCON Status.

18
19 4. FIREPOWER (ESSENTIAL SYSTEMS: Lethal and Nonlethal). Lethal firepower provides
20 destructive force through direct and indirect fire. Nonlethal firepower does not engage in direct
21 or indirect fires, but it is essential in defeating the enemy's ability and will to fight. Nonlethal
22 firepower provides systems and procedures for locating, identifying, and tracking targets and
23 allocating lethal assets. Units will prepare firepower with the following pre-combat checks and
24 inspections.

25
26 A. Prepare weapons.

27
28 1) Conduct special gunnery checks

29
30 2) Boresight/screen

3) Class V upload

4) Test fire

B. Conduct PCIs on nonlethal systems. Nonlethal systems will be checked and tested IAW with their respective technical manuals. All deficiencies must be corrected.

5. FORCE PROTECTION/SUSTAINMENT: The ability to conserve the fighting potential of the force and resupply the force so that commanders can apply it at the decisive time and place. Operational individual and collective NBC systems provide force protection. Preventive maintenance and quick repair of equipment are important elements of sustainment. Units will establish logistics flow by the following methods.

A. Medical.

1) Treatment. Units will have combat lifesavers with complete combat lifesaver bag to immediately treat injured soldiers.

2) CASEVAC. Units will have litter capability to ground transport casualty for emergency and echelon IV-level treatment to host-nation IMC MEDDAC.

B. NBC. Units will have chemical defense equipment (CDE) in place and operational, with CDE resupply readily available for reconstitution.

C. Resupply. Establish ability to conduct resupply operations.

1) Establish PLL

2) ULLS operational

1
2 3) Class I, III, and V ready in push packages
3

4 D. Recovery. Establish ability to recover vehicles and equipment. (Special tools as needed,
5 capable to fix forward at organizational level.)
6

7 6. Units will report their mission-capable status daily to higher headquarters IAW report formats.
8 TFs and separate companies will submit mission-ready reports. Reports must be submitted in
9 hard copy NLT 0800 and 1600 daily to the Headquarters. Building combat power is the priority
10 of effort for all units. Units will rate their mission-capable status IAW the following color codes.
11

12 GREEN: 100-percent tasks accomplished. Fully mission capable.
13

14 AMBER: Not all tasks completed. Capable of accomplishing the mission by assuming risks.
15 Specify risks.
16

17 RED: Not all tasks completed. Not capable of accomplishing mission. Explain reasons.
18

19 Commanders will rate their degree of completion on each task specified in the following formats.
20 Each box will be marked with a G (Green), A (Amber), or R (Red). Shaded boxes are the only
21 boxes to be left blank as they are non-applicable for that subordinate unit. Formats will be turned
22 in to the Headquarters for the purpose of tracking combat power buildup.
23
24

APPENDIX D

DEPLOYMENT PLANNING TOOLS

High-Level Planning Tools

The NCA, the Joint Staff, and the Services must have the ability to monitor, plan, and execute the mobilization, deployment, redeployment, and demobilization of US military forces. These organizations accomplish these missions through the use of the JOPES and other applications resident on GCCS. These tools are the keystone systems by which the NCA retains control over US military operations. The JOPES is the primary US system for deployment planning and execution. It is a comprehensive, integrated system of people, policies, procedures, and reporting systems supported by automated systems and applications. The JOPES (See Table D-1) provides the capability to develop a TPFDD and to monitor its execution. The JOPES was specifically designed to provide strategic deployment information useful to the NCA, the Joint Staff, and the Service Headquarters.

Acronym	Name	Proponent	Users	Use	Remarks
JOPES	Joint Operation Planning and Execution System	Joint Staff	Service Hqs, CINCs, CINC Components, and Sub-Components	Provides guidance for planning, monitoring, and executing mobilization, deployment, employment, and sustainment activities in peacetime, crisis, and war. Permits scheduling of transportation and monitoring of strategic deployments. Data base contains reference files and TPFDDs of approved plans.	JOPES is currently being ported to run on the GCCS.

Table D-1: Current High Level AIS Applications

The GCCS is an integrated architecture of telecommunications, software, and computer equipment designed to support information sharing among various echelons of command, including the NCA, the Services and DoD agencies, the Service elements, and JTFs. GCCS will provide worldwide user-to-user information exchange for command and control, communications, intelligence, functional and administrative management, including logistics, transportation, personnel, and medical support. At initial operating capability, GCCS will operate at nearly 40 sites worldwide. Figure D-2 depicts GCCS applications.

Application	Function	Application Suite
OPLANs and OPORDs	The JOPES automated data processing applications facilitate rapid building and updating of OPLANs and concept summaries in deliberate planning, and rapid development of effective options and OPORDs in crisis action planning. In GCCS Version 2.1, the JOPES requirements are developed using the Requirements Development and Analysis, Ad-Hoc Query, and Scheduling and Movement applications.	JOPES
Requirements Development and Analysis	Allows planners and operators to develop, edit, and manipulate the TPFDD.	JOPES
Ad Hoc Query	Allows planners and operators to define, design, and print reports for information and analysis.	JOPES
Scheduling & Movement	Application interface with USTRANSCOM is GTN and provides in-transit movement information through planning allocations, manifested passenger and cargo information, and carrier schedules.	JOPES
Transportation Planning	The Joint Flow and Analysis System for Transportation (JFAST) application provides quick response capability to	JOPES

	determine the transportation feasibility of an operation plan or course of action.	
Logistics Planning	The Logistics Sustainment Analysis and Feasibility Estimator application provides the capability to both estimate logistics sustainment requirements and evaluate material supportability.	JOPES
Mobilization Planning	The Force Augmentation Planning and Execution System application assists planners with mobilization planning, analysis, and execution by forecasting mobilization requirements, identifying manpower resources for each COA, and monitoring the status and progress of mobilization.	JOPES
Medical Planning	The Medical Planning and Execution System application provides combatant command medical planners with the capability to perform gross medical feasibility and supportability assessments of operation plans.	JOPES
Civil Engineer Planning	The Joint Engineering Planning and Execution System application supports combat command engineers in developing civil engineering support plans.	JOPES
Unit Status	The Global Status of Resources and Training Systems application provides both map-based query and display of joint information on the status of units with respect to personnel, equipment, and training.	JMASS
National Reconnaissance	The Global Reconnaissance Information System application provides automated support for the Joint Staff, unified and functional commands, National Security Agency, and DIA. This system provides near real-time mission status to the JCS; generates worldwide airborne Sensitive Reconnaissance Operations schedule requests; maintains the historical library of all SRO tracks and operations	JMASS

	conducted; and provides daily schedules of all intended airborne SRO.	
Non-Combatant Evacuation	The Evacuation File Maintenance and Retrieval System application supports non-combatant evacuation planning and operations. It responds to queries concerning the number of non-combatant personnel to be evacuated in a country or area.	JMASS
Fuel Planning	The Fuel Resources Analysis System application provides an automated capability for determining the fuel supportability of an OPLAN or COA.	JOPES
Utility Software	Utility services are provided as part of GCCS through integration of existing government-off-the-shelf or COTS applications, including message handling software, E-mail, office automation, teleconferencing, Telnet, and file transfer.	COE
Fused Operational Battlespace Picture	The Joint Maritime Command Information System application is the foundation for the GCCS-fused operational battlespace picture. Incorporated as part of the Common Operating Environment (COE), it provides near real-time sea and air tracks, geographic display, contact correlation, and track database management.	COE
Intelligence	The JMCIS, Navy Tactical Command System-Afloat (NTCS-A), Joint Deployable Intelligence System, and INTELINK-S applications within GCCS provide intelligence capabilities that include an authoritative and fused common tactical picture with integrated intelligence services and databases; access to theater, service, and national intelligence databases; transmittal and receipt of specific intelligence requests; and the inputting of intelligence data into a variety of operations and intelligence	JMASS

	systems.	
Collaborative Planning	Theater Analysis and Replanning Graphical Execution Toolkit is a suite of distributed collaborative planning tools.	JOPES COE

Table D-2: GCCS Applications

In basic terms, the core of GCCS is a COE that allows several different software suites to interface with each other and exchange data. Running on this COE are JOPES, Joint Modeling And Simulation System (JMASS) (a suite of joint tools to access unit readiness and intelligence data, as well as to plan and execute NEO operations, and a number of utilities such as video teleconferencing and collaborative planning tools. Table D-2 lists these applications.

Theater TPFDD Development

Once the high-level planning tools are used to select the major forces that will participate in contingency operations, other tools are used both to help plan which specific units will deploy and to help schedule how these forces are going to be moved to the theater of operations. These tools are part of AMP that is an umbrella "fort-to-foxhole" planning system. The JFAST is a tool that assists planners in estimating force closure dates in the theater of operations, provides the theater TPFDD developer with the capability to rapidly create a TPFDD, and estimates when strategic transportation will deliver TPFDD elements into the theater port complexes. Summaries of these tools are above in Figure D-2.

Acronym AMP

Name Analysis of Mobility Platform

Proponent USTRANSCOM

Users USTRANSCOM HQ, USTRANSCOM TCCs, CINC's, CINC components and sub-components

Use Set of transportation analysis tools aimed at improving joint transportation planning and execution. Provides planners with a rapid analysis of the transportation feasibility of a specific deployment plan, against a planner defined transportation environment. AMP enables USTRANSCOM to determine, within hours, whether a deliberate or crisis deployment plan is supportable by the DTS.

Remarks AMP currently includes the MASS, MIDAS, ELIST, FORCEFLO, and JFAST transportation models; as well as the LOGGEN sustainment estimating tools. Other transportation and scheduling tools will be added to the AMP suite as they are developed. Top Secret.

Acronym JFAST

Name Joint Flow and Analysis System for Transportation

Proponent USTRANSCOM

Users CINCs and Subordinate commands, JCS, USTRANSCOM, Services, analytical agencies, and Service schools

Use High-speed analytical tool used for making detailed estimates of the resources required to transport military forces (including cargo, personnel, and their sustainment) during various scenarios. Estimates when forces will arrive in theater.

Remarks Part of the AMP suite of transportation models. Top Secret.

Analysis of Mobility Platform

The AMP integrates the capabilities of available systems such as Model for Intertheater Deployment by Air and Sea, Mobility Analysis Support System, MAGTF Deployment Support System, and Transportation Coordinator's Automated Information Management System.

Joint Flow and Analysis System for Transportation

JFAST makes detailed estimates of the resources required to transport military forces, including cargo, personnel, and their sustainment, during various scenarios. The primary output of JFAST is an estimation of when forces will arrive at the theater port complexes. In addition, JFAST presents a wealth of graphic and tabular output showing the impact of the theater deployment upon the strategic transportation resources, vehicles, and ports used during the simulation.

JFAST input primarily comes from JOPES in the form of OPLAN TPFDDs and reference files.

JFAST can also export plans to other transportation models such as ELIST.

A useful feature of JFAST is its capability for creating notional movement requirements for instances in which no plan currently exists. In this situation, an OPLAN or exercise TPFDD may identify where and when the military forces are to be deployed. The JFAST Notional Requirements Generator takes division or brigade echelon ground units and squadron echelon air units, as well as expected levels of activity, climate, and desired days of supply, and generates detailed company and detachment level TPFDD deployments. This information can then be used by the JFAST model to estimate closure dates of the generated forces, as well as by the planner for further analysis.

Theater LOC Development

Two tools that are currently used to help plan the overall theater LOC are ELIST and SUMMITS as described in Table D-3.

Acronym	Name	Proponent	Users	Use	Remarks
ELIST	Enhanced Logistics Intratheater Support Tool	Army MTMC-TEA	USTRANSC OM HQ, MTMC, CINCs, CINC Components and Sub-Components	Discrete event, simulation-based system that evaluates the logistical feasibility of the theater transportation portion of a COA. Models theater air, ground, and rail transport assets and transportation infrastructure with	Part of the current AMP suite. Army is currently funding improvements to the model. Secret.

				object-oriented database. Compares the planned theater arrival schedule against a theater's transportation assets, cargo handling equipment, facilities, and routes.	
SUMMITS	Scenario Unrestricted Mobility Model for Intratheater Simulation	OSD (PA&E)	OSD (PA&E) and JS J4	Evaluates the logistic feasibility of a proposed theater transportation COA. Quantifies the total requirement for common-user theater transportation to deliver the specified force to its destination.	Very detailed model that requires considerable programming support to use effectively. Secret.

Table D-3: Current Theater LOC Development Applications

Enhanced Logistics Intra-theater Support Tool

ELIST is an analytical tool that simulates, from a transportation perspective, the deployment of forces within the theater of operations. It helps planners analyze and develop COAs that require forces to arrive at particular in-theater destinations on specific dates.

ELIST uses an object-oriented database to model unit and HN transportation assets and theater infrastructure. The theater transportation network is used to move personnel and cargo from theater entry points such as air and sea ports of debarkation to final theater destinations.

1
2 Planners can generate movement scenarios for ELIST from TPFDD data, as well as from models
3 such as JFAST. Movements are constrained by available theater transportation assets and the
4 capacities of the theater infrastructure.

5
6 ELIST can be used to play out a master scenario events list. The user can add or subtract
7 transportation resources, further constrain link capacities to simulate enemy action, or close
8 down specific ports to determine the effects of these actions on the overall simulated movement
9 of forces and cargo within the theater transportation network. The user interface is a graphic
10 windowing system that integrates maps, data, and a variety of charts, reports, and graphs to show
11 the results of the simulation. ELIST does not plan a theater LOC; rather, it assesses the
12 feasibility of a proposed LOC that the user has already planned.

13 14 **Scenario Unrestricted Mobility Model for Intratheater Simulation**

15
16 SUMMITS executes an intratheater deployment simulation based on inputs provided by the user.
17 The simulation moves personnel, unit equipment, and supplies in accordance with defined
18 requirements. Requirements for transportation are processed in priority order, with each
19 requirement being provided an assigned delivery path through established air, road, rail, water,
20 and pipeline networks. Available transport resources are consumed as each requirement is
21 applied to its assigned delivery path.

22
23 SUMMITS quantifies the total requirement for common-user transportation to deliver the
24 specified force and the required logistics support using the established transportation resource
25 assets. Also, the model quantifies the performance of the established transportation network and
26 resource mix in providing timely delivery of the force to its final destination.

27
28 The model produces reports that detail the transportation requirement for each transportable
29 commodity represented, which usually includes personnel, unit equipment, sustainment cargo,

ammunition, bulk fuel, and water. For example, the trips required per day for a particular vehicle type can be examined as a day by day requirement, a static average daily requirement over a fixed number of days per five day period, or a rolling average daily requirement over a fixed rolling average period. As with ELIST, SUMMITS cannot plan a theater LOC; rather it assesses the feasibility of a proposed LOC concept.

Using ELIST and SUMMITS to Plan the Theater LOC

Neither ELIST nor SUMMITS can independently develop a proposed theater LOC concept. Detailed inputs specified below are required:

- A completely planned theater LOC.
- Lift resources available.
- Storage and throughput capacities for each mode and node in the theater.
- Node and link capacities.
- Other theater LOC constraints.
- A planned, detailed TPFDD flow into and within the theater.

SUMMITS also requires theater campaign results to determine the locations where the unit personnel and equipment must be delivered as a function of time, intensity of combat, and friendly combat success; the combat consumption of all classes of supply played in the model; and a detailed theater logistics support plan.

Node Planning Tools

There are also tools available to assist in the planning of specific nodes in the theater LOC. The Base Resource and Capability Estimator can model military aerial port operations to estimate airfield throughput capability. The Integrated Computerized Deployment System can assist the

1 planner in developing stowplans for ships, while the Port Simulation model simulates seaport
2 operations during a force deployment. These tools are summarized in Table D-4.

3

Acronym	Name	Proponent	Users	Use	Remarks
BRACE	Base Resource and Capability Estimator	Air Mobility Command	USTRAN SCOM HQ, AMC, JFACCs, Air Staff Planners	Simulates airfield onloading, offloading, en route, and recovery base operations, including ground activities such as cargo handling, refueling, maintenance, and aircraft parking. Estimates airfield throughput capability.	Currently in advanced development. May be incorporated into GTN. Unclassified.
ICODES	Integrated Computerized Deployment System	MTMC	MTMC Terminals	Assists in the pre-stowage process by matching a vessel characteristics file against the cargo being offered for shipment to produce a vessel stowage plan. Calculates critical sailing characteristics, including trim and	Usually used in conjunction with unit moves. Interfaces with DAMMS-R. Unclassified.

				stability.	
PORTSIM	Port Simulation	MTMC	MTMC Terminals	Simulation of seaport operations during a force deployment. Provides a series of time profiles that show the usage of port lift assets, MHE, staging area capacities, force structure, number of vehicles loaded, and several other parameters.	Usually used in conjunction with unit moves. Interfaces with ICODES. Unclassified .

Table D-4: Developmental AIS for Theater LOC Analysis

Aerial Port Planning Tools

The planning tool to model military air terminal operations is BRACE. BRACE simulates airfield onloading, offloading, en route, and recovery base operations, including ground activities such as cargo handling, refueling, maintenance, and aircraft parking. The model can be used to:

- Estimate airfield throughput capability.
- Estimate air, ground, and other resources required to support a given level of throughput at an airfield.
- Validate MOG values used in existing air transportation models such as JMASS and JFAST.

Seaport Planning Tools

Joint water ports in the theater of operation are critical to the success of the operation because most of the Army and Marine unit equipment and sustainment cargo will be received through them. Two of the most useful tools for assisting in planning SPOE/D operations are ICODES and PORTSIM.

- **Integrated Computerized Deployment System**

ICODES is a decision support system for developing stow plans for ships. It assists the user in developing stowplans by matching vessel characteristics against the cargo being offered for shipment. ICODES develops the stowplans for up to four specific ships concurrently while continuously checking for access and hazard violations. At the user's request, ICODES can automatically attempt to maintain unit integrity in the stowplans it develops.

Once the stowplans are completed, ICODES automatically generates ship manifests and templates cargo items onto ship drawings in a matter of minutes. ICODES includes video films of ship decks and cargo items, a wealth of customized reports that detail both the process of constructing the stowplans and results of the process, and a database which provides details on the availability of external ship ramps and the facilities for many ports around the world.

- **Port Simulation Model**

PORTSIM is a time-stepped, discrete event simulation of seaport operations during a force deployment. It provides a series of time profiles that show the usage of port lift assets, MHE, staging area capacities, force structure, number of vehicles loaded, and several other parameters.

PORTSIM loads the ship in accordance with an ICODES-developed loading plan. Using loading planning factors obtained from a number of actual exercises, it provides granularity down to line item number level. PORTSIM can also be used to model the unloading of a ship in other than CONUS ports.

PORTSIM has two levels of capability. First, it contains a reference data base that includes data about seaports around the world. Second, it is a simulation and animation of unit equipment moving through a port onto a series of ships.

APPENDIX E

REFERENCES

The development of Joint Pub 4-01.8 is based upon the following primary references:

1. DOD Publications

- a. DOD Directive 4500.9-R, "Defense Transportation Regulation Part III, Mobility."

2. Joint Publications

- a. Joint Pub 1-01, "Joint Publication System, Joint Doctrine and Joint Tactics, Techniques, and Procedures Development Program."
- b. Joint Pub 1-02, "DOD Dictionary of Military and Associated Terms."
- c. Joint Pub 3-0, "Doctrine for Joint Operations."
- d. Joint Pub 3-02, "Amphibious Operations."
- e. Joint Pub 3-07, "Military Operations Other Than War."
- f. Joint Pub 3-10, "Joint Doctrine for Rear Area Operations."
- g. Joint Pub 3-17, "JTTP for Air Lift Operations."
- h. Joint Pub 3-33, "Joint Force Capabilities."
- i. Joint Pub 4-0, "Doctrine for Logistic Support of Joint Operations."

j. Joint Pub 4-01.3, "JTTP for Movement Control."

k. Joint Pub 4-01.4, "Joint Theater Distribution

l. Joint Pub 4-01.6, "JTTP for Joint Logistics Over the Shore." (Draft)

m. Joint Pub 4-01.7, JTTP for Use of Intermodal Containers in Joint Operations

n. Joint Pub 5-0, "Doctrine for Planning Joint Operations."

o. Joint Pub 5-03.1, "Joint Operation Planning and Execution System Vol. 1."

3. Army Publications

a. FM 55-1, "Army Transportation Services in a Theater of Operations."

b. FM 55-10, "Movement Control in a Theater of Operations."

c. FM 55-60, "Army Terminal Operations."

d. FM 55-65, "Strategic Deployment."

e. FM 63-4, "CSS Operations, Theater Army Area Command."

f. FM 100-5, "Operations."

g. FM 100-10, "CSS Operations."

h. FM 100-17, "Mobilization, Deployment, Redeployment, Demobilization."

i. FM 100-17-1, "Army Prepositioned Afloat Operations."

j. FM 100-17-3 (Draft), "Reception, Staging, Onward Movement, and Integration."

4. Air Force Publications

a. AFDD-30, "Airlift Operations."

b. AFDD-40, "Logistics."

5. Marine Corps Publications

a. FMFM 1-1, "Campaigning."

b. FMFM 1-5, "Maritime Prepositioning Force (MPF) Operations."

c. FMFM 4, "Combat Service Support."

d. FMFM 4-1, "CSS Operations."

e. FMFRP 1-11, "Fleet Marine Force Organization."

f. H-2E-3119, "Joint Maritime Prepositioning Force Staff Planning."

g. MCO P3000.17, "Maritime Prepositioning Force (MPF) Planning and Policy Manual."

h. OH 4-11, "Maritime Prepositioned Deployment."

6. Navy Publications

a. NDP 4, "Naval Logistics."

b. NWP 4-01, "Logistics Task Force."

c. NWP 4-01.1, "Naval Advanced Bases Support."

7. Other

a. Institute for Defense Analyses (IDA), "US Army Transportation School Force Deployment Rock Drill - Read Ahead," Nov 1996.

b. Joint Warfighting Center (JWFC), "JTF Commander's Handbook for Peace Operations," 28 Feb 95.

c. Lidy, A. Martin, Institute for Defense Analyses (IDA), "Recommendations for Improving Joint Reception, Staging, Onward Movement, and Integration (RSOI)."

d. Powell, General Colin L., "A Doctrinal Statement of Selected Joint Operational Concepts," 10 November 1992.

e. 3d TMCA RSO&I Briefing, Sept 1996.

APPENDIX F
ADMINISTRATIVE INSTRUCTIONS

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Users in the field are highly encouraged to submit comments on this publication to the Joint Warfighting Center, Attn.: Doctrine Division, Fenwick Road, Building 96, Fort Monroe, VA 23651-5000. These comments should address content (accuracy, usefulness, consistency, and organization) and writing and appearance.

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GLOSSARY

PART I--ACRONYMS AND ABBREVIATIONS

1		
2		
3		
4		
5	AAI	Air-to-Air Interface
6	AAIS	Air-to-Air Interface Site
7	AALPS	Automated Air Load Planning System
8	AAOE	Arrival & Assembly Operations Element
9	AAOG	Arrival & Assembly Operations Group
10	ABFC	Advanced Base Functional Component
11	ACSA	Acquisition and Cross-sing Agreement
12	ACU	Assault Craft Unit
13	A/DACG	Arrival/Departure Airfield Control Group
14	ADAMS	Allied Deployment and Movement System A/SPODAir/Sea Port
15		of Debarkation
16	ADCON	Administrative Control
17	ADP	Automatic Data Processing
18	AECC	Aeromedical Evacuation Coordination Center
19	AF	Air Force
20	AFCAP	Air Force Contract Augmentation Program
21	AFCC	Air Force Component Commander
22	AFCSS	Air Force Contingency Supply Squadron
23	AFFOR	Air Force Forces
24	AFRES	Air Force Reserve
25	AIRDET	Air Detachment
26	AIS	Automated Information Systems
27	AIT	Automatic Identification Technology
28	ALCC	Airlift Control Center
29	ALCT	Airlift Control Team
30	AMC	Air Mobility Command / Army Materiel Command

1	AMD	Air Mobility Division
2	ALE	Airlift Liaison Element
3	ALOC	Air Line of Communications
4	ALSS	Advanced Logistics Support Site
5	AMC	Air Mobility Command
6	AMC LSE	Army Materiel Command Logistical Support Element
7	AME	Air Mobility Element
8	AMOPES	Army Operations Planning and Execution System
9	AMP	Analysis of Mobility Platform .
10	AO	Area of Operations
11	AOC	Air Operations Center
12	AOR	Area of Responsibility
13	APA	Army Pre-Positioned Afloat
14	APFDA	Army Force Planning Data and Assumptions
15	APOD	Aerial Port of Debarkation
16	APOE	Aerial Port of Embarkation
17	APS	Aerial Port Squadron
18	ARFOR	Army Forces
19	ASB	Advanced Support Base
20	ASCC	Army Service Component Commander
21	ASG	Area Support Group
22	ASL	Authorized Stockage List
23	ASMB	Area Support Medical Battalion
24	ASMC	Area Support Medical Company
25	ASP	Ammunition Supply Point
26	ATC	Air Traffic Control
27	ATMCT	Air Terminal Movement Control Team
28	ATO	Air Tasking Order
29	ATP	Ammunition Transfer Point
30	AUEL	Automated Unit Equipment List

1	AWR	Army War Reserve
2	AWRPS	Army War Reserve Pre-positioned Set
3	BEEF	Base Engineer Emergency Force
4	BMU	Beachmaster Unit
5	BOG	Beach Operations Group
6	BRACE	Base Resource and Capability Estimator
7	C2	Command and Control
8	C4	Command, Control, Communications, and Computers
9	C4I	Command, Control, Communications, Computers, and
10		Intelligence
11	CAA	Convoy Assembly Area
12	CAP	Crisis Action Planning
13	CART	Cargo Afloat Rig Team
14	CATF	Commander Amphibious Task Force
15	CBC	Construction Battalion Center
16	CBU	Construction Battalion Unit
17	CCA	Central Contracting Authority
18	CD	Consolidation and Distribution
19	C-DAY	Unnamed day on which deployment operations begin
20	CDR	Commander
21	CESE	Civil Engineer Support Equipment
22	CFA	Call-Forward Area
23	CG CAPMAN	CG Capabilities Manual
24	CHE	Container Handling Equipment
25	CINC	Commander-in-Chief; <i>commander of a combatant command</i>
26	CJCS	Chairman of the Joint Chiefs of Staff
27	CJTF	Commander, Joint Task Force
28	CLF	Commander of Landing Forces or Combat Logistics Force
29	CMCB	Corps Movement Control Battalion
30	CMCC	Corps Movement Control Center

1	CMOC	Civil Military Operations Center
2	COA	Course of Action
3	COB/COL	Contingency Operating Base/Location
4	COCOM	Combatant Command
5	COL	Contingency Operating Location
6	COMAFFOR	Commander Air Force Forces
7	COMMZ	Communications Zone
8	COMNAVELSF	Commander Naval Expeditionary Logistics Support Force
9	CONCAP	Construction Capability Contract
10	CONOPS	Concept of Operations
11	CONPLAN	Concept Plan
12	CONUS	Continental United States
13	COP	Common Operational Picture
14	COSCOM	Corps Support Command
15	CS	Combat Support
16	CSA	Chief of Staff, United States Army
17	CSC	Convoy Support Center
18	CSS	Combat Service Support
19	CULT	Common User Land Transportation
20	DA	Department of the Army
21	DAASC	Defense Automatic Addressing System Center
22	DACG	Departure Airfield Control Group
23	DCSLOG	Deputy Chief of Staff for Logistics, US Army
24	DCSOPS	Deputy Chief of Staff for Operations and Plans, US Army
25	DEL	Deployment Equipment List
26	DIA	Defense Intelligence Agency
27	DIRMOBFOR	Director of Mobility Forces
28	DISCOM	Division Support Command (Army)
29	DLR	Depot Level Repair
30	DOD	Department of Defense

1	DODAAC	Department of Defense Activity Address Code
2	DS	Direct Support
3	DTO	Division Transportation Officer
4	DTS	Defense Transportation System
5	EAC	Echelons Above Corps
6	ELIST	Enhanced Logistic Intratheater Support Tool
7	FDO	Forward Deterrence Option
8	FLS	Forward Logistics Site
9	FMCC	Force Movement Control Center
10	FOB	Forward Operating Base
11	FORSCOM	US Army Forces Command
12	FSS	Fast Sealift Ship
13	FTU	Freight Terminal Unit
14	GCCS	Global Command and Control System
15	GCSS	Global Combat Support System
16	GS	General Support
17	GTN	Global Transportation Network
18	HAZMAT	Hazardous Materials
19	HET	Heavy Equipment Transporter
20	HN	Host Nation
21	HNS	Host Nation Support
22	HSS	Health Service Support
23	HQ	Headquarters
24	HQDA	Headquarters, Department of the Army
25	IAW	In Accordance With
26	IBU	Inshore Boat Units
27	ICODES	Integrated Computerized Deployment System
28	ICP	Inventory Control Point
29	IDZ	Inner Defense Zone
30	IPB	Intelligence Preparation of Battlefield

1	ISB	Intermediate Staging Base
2	ISSA	Inter-Service Support Agreement
3	ITV	In-Transit Visibility
4	IUWGRUDET	Inland Underseas Warfare Group Detachment
5	JAOC	Joint Air Operations Center
6	JCS	Joint Chiefs of Staff
7	JFACC	Joint Force Air Component Commander
8	JFAST	Joint Flow and Analysis System for Transportation
9	JFC	Joint Force Commander
10	JICTRANS	USTRANSCOM Joint Intelligence Center
11	JIPB	Joint Intelligence Preparation of the Battlefield
12	JLOTS	Joint Logistics Over The Shore
13	JMASS	Joint Modeling and Simulation System
14	JMC	Joint Movement Center
15	JMCG	Joint Movement Control Group
16	JOA	Joint Operations Area
17	JOPEs	Joint Operation Planning and Execution System
18	JPEC	Joint Planning and Execution Community
19	JRA	Joint Rear Area
20	JRAC	Joint Rear Area Coordinator
21	JROC	Joint Rear Operations Center
22	JRSOI	Joint Reception, Staging, Onward Movement, and Integration
23	JSCP	Joint Strategic Capabilities Plan
24	JTAV	Joint Total Asset Visibility
25	JTAV-IT	Joint Total In-Theater Visibility
26	JTB	Joint Transportation Board
27	JTF	Joint Task Force
28	JTTP	Joint Tactics, Techniques, and Procedures
29	JWARS	Joint Warfare System
30	LCAC	Landing Craft Air Cushion

1	LCL	Less-Than-Car-Load
2	LCM	Landing Craft Mechanized
3	LCU	Landing Craft Utility
4	LFSP	Landing Force Support Party
5	LIPS	Logistics Information Processing System
6	LMCC	Logistics Movement Control Center
7	LMSR	Large Medium-Speed Roll-on/roll-off
8	LNO	Liaison Officer
9	LO	Liaison Officer
10	LOC	Lines of Communication
11	LOGCAP	Logistics Civil Augmentation Program
12	LOI	Letter of Instruction
13	LOTS	Logistics Over the Shore
14	LPB	Logistics Preparation of the Battlefield
15	LRC	Logistics Readiness Center
16	LSE	Logistics Support Element
17	LTF	Logistics Task Force
18	LTFLANT	Logistics Task Force Atlantic
19	LTFPAC	Logistics Task Force Pacific
20	MAB	Marine Amphibious Brigade
21	MACOM	Major Army Command
22	MAGTF	Marine Air-Ground Task Force
23	MARFOR	Marine Forces
24	MCA	Movement Control Agency
25	MCB	Movement Control Battalion
26	MCC	Movement Control Center
27	MCP	Marine Corps Capabilities Plan
28	MCT	Movement Control Team
29	MEB	Marine Expeditionary Brigade
30	MEF	Marine Expeditionary Force

1	MEF (FWD)	Marine Expeditionary Force Forward
2	METT-T	Mission, Enemy, Terrain, Troops, and Time Available
3	MEU	Marine Expeditionary Unit
4	MHE	Material Handling Equipment
5	MIS	Management Information Systems
6	MIUWU	Mobile Inshore Undersea Warfare Unit
7	MLC	Marine Logistics Command
8		
9	MOB	Main Operating Base
10	MOG	Maximum On Ground
11	MOU	Memorandum of Understanding
12	MP	Military Police
13	MPF	Marine Prepositioned Forces
14	MPS	Maritime Prepositioning Ships
15	MSC	Military Sealift Command
16	MSF	Mobile Strike Force
17	MSR	Main Supply Routes
18	MTMC	Military Traffic Management Command
19	MTMCTEA	MTMC Transportation Engineering Agency
20	MTW	Major Theater war
21	NAF	Numbered Air Force
22	NATO	North Atlantic Treaty Organization
23	NAVCHAPGRU	Navy Cargo Handling and Port Group
24	NAVFOR	Naval Forces
25	NAVSUPSYSCOM	Naval Supply Systems Command
26	NBCC	Nuclear, Biological, Chemical, and Conventional
27	NBG	Naval Beach Group
28	NCA	National Command Authorities
29	NCF	Navy Construction Force
30	NCHB	Navy Cargo Handling Battalion

1	NCP	Navy Capabilities Plan
2	NCR	Naval Construction Regiment
3	NEO	Non-combatant Evacuation Operations
4	NGO	Non-Governmental Organization
5	NIMA	National Imaging and Mapping Agency
6	NMCB	Navy Mobile Construction Battalion
7	NOACT	Naval Overseas Airfield Cargo Terminal
8	NRCHB	Naval Reserve Cargo Handling Battalion
9	NRCHTB	Naval Reserve Cargo Handling Training Battalion
10	NTCS-A	Navy Tactical Command System Afloat
11	OA	Objective area
12	OCONUS	Outside Continental United States
13	ODZ	Outer Defense Zone
14	OPCON	Operational Control
15	OPDS	Offshore Petroleum Discharge Systems
16	OPLAN	Operation Plans
17	OPORD	Operations Order
18	OPP	Off-load Preparation Party
19	PHIBCB	Amphibious Construction Battalion
20	PLS	Palletized Loading System
21	PMC	Passengers, Mail, and Cargo
22	POD	Port Of Debarkation
23	POE	Port Of Embarkation
24	POG	Port Operations Group
25	POL	Petroleum, Oil, and Lubricants
26	PORTSIM	Port Simulation
27	PREPO	Pre-positioned
28	PRIME BEEF	Base Engineering Emergency Force
29	PSU	Port Security Unit

30

1	PSA	Port Support Activity
2	PSC	Port Security Company
3	RAOC	Rear Area Operation Center
4	RC	Reserve Component
5	RF	Radio Frequency
6	RHOG	Railhead Operations Group
7	RLE	Rail Liaison Element
8	ROE	Rules of Engagement
9	RON	Remain Overnight
10	RORO	Roll On/Roll Off
11	RRDF	Roll-on/Roll-off Discharge Facility
12	RSOI	Reception, Staging, Onward Movement, and Integration
13	SA	Staging Area
14	SAI	Sea-to-Air Interface
15	SAIS	Sea-Air Interface Site
16	SECDEF	Secretary of Defense
17	SLE	Sealift Liaison Element
18	S&I	Surveillance and Interdiction
19	SLRP	Survey, Liaison, Reconnaissance Party
20	SMO	Strategic Mobility Officer
21	SOP	Standing Operating Procedures
22	SORTS	Status of Resources and Training System
23	SP	Security Police/Shore Patrol
24	SPM	Single Port Manager
25	SPOD	Sea Ports Of Debarkation
26	SPOE	Sea Ports Of Embarkation
27	STACCS	Standard Theater Army Command and Control System
28	STON	Short Ton
29	SUMMITS	Scenario Unrestricted Mobility Model of Intratheater Simulation
30	SUPCOM	Support Command

1	TAA	Tactical Assembly Area
2	TAACOM	Theater Army Area Command
3	TACC	Tanker/Airlift Control Center
4	TACON	Tactical Control
5	TACS	Theater Airlift Control System
6	TALCE ^a	Tanker/Airlift Control Element
7	TAMCA	Theater Army Movement Control Agency
8	TAMMC	Theater Army Materiel Management Center
9	TAV	Total Asset Visibility
10	TCAIMS-II	Transportation Coordinator-Automated Information for
11		Movement system
12	TCC	Transportation Component Command
13	TCMD	Transportation Control and Movement Document
14	TCN	Transportation Control Number
15	TMCA	Theater Movement Control Agency
16	TOA	Table of Allowance
17	TOC	Tactical Operations Center
18	TOFM	Theater Opening Force Module
19	TOPNS	Theater of Operations
20	TPFDD	Time-Phased Force and Deployment Data
21	TPFDL	Time-Phased Force Deployment List
22	TTB	Transportation Terminal Brigade/Battalion
23	TTP	Tactics, Techniques, and Procedures
24	TUCHA	Type Unit Characteristic File
25	UCT	Underwater Construction Team
26	UIC	Unit Identification Code
27	ULN	Unit Line Number
28	UMCC	Unit Movement Control Center
29	US	United States
30	USAMC	US Army Materiel Command USC United States Code

1	USCENTCOM	United States Central Command
2	USCG	United States Coast Guard
3	USEUCOM	United States European Command
4	USMC	United States Marine Corps
5	USPACOM	United States Pacific Command
6	USSOCOM	United States Special Operations Command
7	USSOUTHCOM	United States Southern Command
8	USSPACECOM	United States Space Command
9	USTRANSCOM	United States Transportation Command
10	USSTRATCOM	United States Strategic Command
11		
12	UTC	Unit Type Code
13	WEAR	Wartime Executive Agency Responsibilities
14	WMP	US Air Force War and Mobilization Plan
15	WPS	Worldwide Port System
16	WRM	War Reserve Materiel

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PART II--TERMS AND DEFINITIONS

Administrative Control (ADCON) Direction or exercise of authority over subordinate or other organizations in respect to administration and support, including organization of service forces, control of resources and equipment, personnel, management, unit logistics, individual and unit training, readiness, mobilization, demobilization, discipline, and other matters not included in the operational missions of the subordinate or other organizations. Also called ADCON.

Aerial Port of Debarkation (APOD) The geographic point at which cargo or personnel are discharged. May be a seaport or aerial port of debarkation. For unit requirements, it may or may not coincide with the destination. Also called POD. (See also port of embarkation .) (JP 1-02)

Aerial Port of Embarkation (APOE) The geographic point in a routing scheme from which cargo or personnel depart. May be a seaport or aerial port from which personnel and equipment flow to port of debarkation. For unit and nonunit requirements, it

1 may, or may not coincide with the origin. Also called. POE. See also port of
2 debarkation. (JP 1-02)

3
4 **Airlift Liaison Element (ALE)** Established at each APOD to coordinate between the
5 deploying MAGTF and Arrival Airfield Control Group (AACG).

6
7 **Air Mobility Division (AMD)** The Air Mobility Division plans, coordinates, tasks, and manages
8 the air mobility mission. The AMD is located in the AOC. The AOC Director
9 ensures the AMD works as an effective division of the AOC in the Air and Space
10 Planning and Execution Process. As directed by the DIRMOBFOR, the AMD will
11 task attached theater air mobility forces through wing and unit command posts
12 when those forces operate from permanent home bases or wing operations centers
13 (WOC) if forward deployed

14
15 **Air Operations Center (AOC)** The principal air operations installation from which aircraft and
16 air warning functions of combat air operations are directed, controlled, and
17 executed. It is the senior agency of the Air Force Component Commander from
18 which C2 of air operations are coordinated with other components and Services.
19 (Joint Pub 1-02)

20
21 **Air Support Operations Center (ASOC)** An agency of a tactical air control system collocated
22 with a corps headquarters of an appropriate land force headquarters, which
23 coordinates and directs close air support and other tactical air support.

24
25 **Air Terminal** A facility on an airfield that functions as an air transportation hub and
26 accommodates the loading and unloading of airlift aircraft and the intransit
27 processing of traffic. The airfield may or may not be designated an aerial port.

Arrival/Departure Airfield Control Group (A/DACG) A user provided group to perform aerial port functions during unit deployment/employment/redeployment. A provisional organization.

Arrival and Assembly Operations Element (AAOE)/Unit Movement Control Center (UMCC) The AAOE/UMCC is activated by the units to provide operational C2, coordinate and monitor arrival of personnel and equipment, direct and control distribution of sustainment and equipment to the unit, and monitor/coordinate onward movement. The AAOE is a temporary organization, which deactivates once Maritime Prepositioned Force (MPF) operations are complete. The UMCC, a permanent organization, assumes movement control and logistics functions upon disestablishment of the AAOE. Should there not be a MPF operation, the UMCC will operate in accordance with published directives.

Arrival and Assembly Operations Group (AAOG)/Force Movement Control Center (FMCC) The AAOG/FMCC is activated by the MAGTF to provide operational C2, coordinate and monitor arrival of personnel and equipment, direct and control distribution of sustainment and equipment to the Force, and monitor/coordinate onward movement. The AAOG is a temporary organization, which deactivates once MPF operations are complete. The FMCC, a permanent organization, assumes movement control and logistics functions upon disestablishment of the AAOG. Should there not be a MPF operation, the FMCC will operate in accordance with published directives.

Assembly Area 1. An area in which a command is assembled preparatory to further action. 2. In a supply installation, the gross area used for collecting and combining components into complete units, kits, or assemblies.

Automatic Identification Technology A suite of tools for facilitating TAV source data capture and transfer. AIT includes a variety of devices, such as bar codes,

1 magnetic stripes, optical memory cards, and radio frequency tags for marking or
2 “tagging” individual items, multi-packs, equipment, air pallets, or containers,
3 along with the hardware and software required to create the devices, read the
4 information on them, and integrate that information with other logistics
5 information. AIT integration with logistics information systems is key to DoD’s
6 TAV efforts.

7
8 **Bare Base** A base having minimum essential facilities to house, sustain, and support
9 operations to include, if required, a stabilized runway, taxiways, and aircraft
10 parking areas. A bare base must have a source of water that can be made potable.
11 Other requirements to operate under bare base conditions form a necessary part of
12 the force package deployed to the bare base.

13
14 **Beach Operations Group (BOG)** A task organization, under the operational control
15 of the LMCC, for support of an MPF beach off-load.

16
17 **Closure** In transportation, the process of a unit arriving at a specified location. It begins
18 when the first element arrives at a designated location, e.g., port of entry/port of
19 departure, intermediate stops, or final destination, and ends when the last element
20 does likewise. For the purposes of studies and command post exercises, a unit is
21 considered essentially closed after 95 percent of its movement requirements for
22 personnel and equipment are completed.

23
24 **Combat Service Support Operations Center (CSSOC)** The CSSOC will be the
25 primary CSS coordination center for units conducting RSOI. The
26 MAGTF HQ (AAOG/FMCC) may be collocated or in close proximity to
27 the CSSOC in order to facilitate coordination.

28
29 **Combatant Command** A unified or specified command with a broad continuing mission under
30 a single commander established and so designated by the President, through the

1 Secretary of Defense and with the advice and assistance of the Chairman of the
2 Joint Chiefs of Staff. Combatant commands typically have geographic or
3 functional responsibilities.
4

5 **Combatant Commander** A commander in chief of one of the unified or specified combatant
6 commands established by the President (Joint Pub 1-02).
7

8 **Common-user Lift** US Transportation Command-controlled lift: The pool of strategic
9 transportation assets either government owned or chartered that are under the
10 operational control of Air Mobility Command, Military Sealift Command, or
11 Military Traffic Management Command for the purpose of providing common-
12 user transportation to the Department of Defense across the range of military
13 operations. These assets range from common-user organic or chartered pool of
14 common-user assets available day-to-day to a larger pool of common-user assets
15 phased in from other sources.
16

17 **Component** 1. One of the subordinate organizations that constitute a joint force. Normally a
18 joint force is organized with a combination of Service and functional components.
19 2. In logistics, a part or combination of parts having a specific function, which
20 can be installed or replaced only as an entity.
21

22 **Defense Transportation System (DTS)** That portion of the Nation's transportation
23 infrastructure that supports DOD common-user transportation needs across the
24 range of military operations. It consists of those common-user military and
25 commercial assets, services and systems organic to, contracted for, or controlled
26 by the Department of Defense. (Joint Pub 1-02)
27

28 **Director of Mobility Forces (DIRMOBFOR)** The DIRMOBFOR is the COMAFFOR's, or
29 JFACC's (USAF) designated Coordinating Authority for air mobility with all
30 commands and agencies internal and external to the JTF. The DIRMOBFOR

1 provides direction to the AMD in the AOC and will normally be a senior officer
2 familiar with the AOR. When USTRANSCOM forces are employed in support of
3 a JFC, the DIRMOBFOR should have experience in intertheater air mobility
4 operations. The DIRMOBFOR may be sourced by the COMAFFOR or
5 nominated by Commander AMC.
6

7 **Fixed Port** Water terminals with an improved network of cargo-handling facilities designed
8 for the transfer of oceangoing freight. (Joint Pub 1-02)
9

10 **Force Planning** Planning associated with the creation and maintenance of military capabilities.
11 It is primarily the responsibility of the Military Departments and Services and is
12 conducted under the administrative control that runs from the Secretary of
13 Defense to the Military Departments and Services. (Joint Pub 1-02)
14

15 **Force Protection** Security program designed to protect soldiers, civilian employees, family
16 members, facilities, and equipment, in all locations and situations, accomplished
17 through planned and integrated application of combating terrorism, physical
18 security, operations security, personal protective services, and supported by
19 intelligence, counterintelligence, and other security programs. (Joint Pub 1-02)
20

21 **Force Tracking** The identification of units and their specific modes of transport during
22 movement to an objective area. (Joint Pub 1-02)
23

24 **HARVEST EAGLE** A nickname for an air transportable package of housekeeping equipment,
25 spare parts, and supplies required to support AF general purpose forces and
26 personnel under bare base conditions. Each kit is designed to provide softwall
27 housekeeping support for 1,100 personnel.
28

1 **HARVEST FALCON** A nickname for an air transportable package of hardwall shelters,
2 software tents, and equipment required for base and personnel housekeeping sets
3 and aircraft support sets in bare base conditions.
4

5 **Host Nation (HN)** A nation which receives the forces and/or supplies of allied nations to be
6 located on or to operate in, or to transit through its territory.
7

8 **Host Nation Support** Civil and military assistance rendered in peace, crisis and war by a host
9 nation to allied forces which are located on or in transit through the host nation's
10 territory. The basis of such assistance is commitments arising from the alliance or
11 from bilateral or multilateral agreements concluded between the host nation and
12 the nation(s) having forces operating on the host nation's territory.
13

14 **Host Nation Support** Civil and/or military assistance rendered by a nation to foreign forces
15 within its territory during peacetime, times of crisis/emergencies, or war, based
16 upon agreements mutually concluded between nations.
17

18 **Host Nation Support Agreement** Basic agreement normally concluded at government- to-
19 government or government-to-CINC level. They are sometimes called General
20 Agreements, Umbrella Agreements, or as a Memorandum of Understanding
21 (MOU).
22

23 **Infrastructure** All building and permanent installations necessary for the support,
24 redeployment, and military forces operations (e.g. barracks, headquarters,
25 airfields, communications, facilities, stores, port installations, and maintenance
26 stations
27

28 **Integration** The transfer of authority over a force to the tactical commander. **Proposed**
29 **definition**, "In force projection, the synchronized hand-off of units into an

operational commander's force prior to mission execution." This term and definition will modify existing term and definition in JP 1-02

In-transit Visibility The capability provided to a theater Combatant Commander to have visibility of units, personnel, and cargo while in transit through the Defense Transportation System. (Joint Pub 1-02)

Joint Air Operations Air operations performed with air capabilities/forces made available by components in support of the joint force commander's operation or campaign objectives, or in support of other components of the joint force. (Joint Pub 1-02)

Joint Air Operations Center (JOAC) A jointly staffed facility established for planning, directing, and executing joint air operations in support of the joint force commander's operation or campaign objectives. (Joint Pub 1-02)

Joint Flow and Analysis System for Transportation (JFAST) Determines the transportation feasibility of a COA or Oplan; provides daily lift assets needed to move forces and resupply; advises logistics planners of channel and port inefficiencies; and interprets shortfalls from various flow possibilities.

Joint Force A general term applied to a force composed of significant elements assigned or attached, of two or more military departments operating under a single commander. See also joint force commander. (Joint Pub 1-02)

***Joint Force Air Component Commander (JFACC)** The joint force air component commander derives authority from the joint force commander who has the authority to exercise operational control, assign missions, direct coordination among subordinate commanders, redirect and organize forces to ensure unity of effort in the accomplishment of the overall mission. The joint force commander

1 will normally designate a joint force air component commander. The joint force
2 air component commander's responsibilities will be assigned by the joint force
3 commander (normally these would include, but not be limited to, planning,
4 coordination, allocation, and tasking based on the joint force commander's
5 apportionment decision). Using the joint force commander's guidance and
6 authority, and in coordination with other Service component commanders and
7 other assigned or supporting commanders, the joint force air component
8 commander will recommend to the joint force commander apportionment of air
9 sorties to various missions or geographic areas. (Joint Pub 1-02)

10
11 **Joint Force Commander** A general term applied to a combatant commander, subunified
12 commander, or joint task force commander authorized to exercise combatant
13 command (command authority-COCOM) or operational control (OPCON) over a
14 joint force. (Joint Pub 1-02)

15
16 **Joint Movement Center (JMC)** The center established to coordinate the employment of all
17 means of transportation (including that provided by allies or *host nations*) to
18 support the concept of operations. This coordination is accomplished through
19 establishment of transportation policies within the assigned area of responsibility,
20 consistent with relative urgency of need, port and terminal capabilities,
21 transportation asset availability, and priorities set by a joint force commander.
22 (Joint Pub 1-02)

23
24 **Joint Operations** A general term to describe military actions conducted by joint forces, or by
25 service forces in relationships (e.g., support, coordinating authority), which, of
26 themselves, do not create joint forces. (Joint Pub 1-02)

27
28 **Joint Operations Area** An area of land, sea, or airspace, defined by a geographic combatant
29 commander or subordinate unified commander, in which a joint force commander
30 (normally a joint task force commander) conducts military operations to

1 accomplish a specific mission. Joint operations areas are particularly useful or
2 when operations are limited in scope and geographic area or when operations are
3 to be conducted on the boundaries between theaters. Also called JOA. See also
4 area of responsibility. (Joint Pub 1-02)

5
6 **Joint Operation Planning and Execution System (JOPES)** A total system successor to
7 JOPS/JDS. It supports integrated planning and command and control of
8 mobilization, deployment, employment, and sustainment activities using an
9 improved information system. (JCS Pub 5-03.1)

10
11 **Joint Reception, Staging, Onward Movement, and Integration (JRSOI) (Proposed**
12 **Definition)** A phase of joint force projection occurring in the operational area.
13 This phase comprises the essential processes required to transition arriving
14 personnel and materiel into forces capable of meeting operational requirements.
15 (Proposed definition Joint Pub 1-02)

16
17 **Joint Reception Complex** The group of nodes (air and/or sea) designated by the supported
18 combatant command, in coordination with the HN and U.S. transportation
19 Command, that receives, processes, services, supports, and facilitates onward
20 movement of personnel, materiel, and units deploying into, out of, or within a
21 theater LOC.

22
23 **Joint Task Force (JTF)** A joint force that is constituted and so designated by the Secretary of
24 Defense, a combatant commander, a sub-unified commander, or an existing Joint
25 Task Force commander. (Joint Pub 1-02)

26
27 **Joint Total Asset Visibility** A joint AIS designed to consolidate source data from a variety of
28 joint and Service AIS to provide Joint Force Commanders with visibility over
29 assets in-storage, in-process, and in-transit.

1 **Lines of Communication (LOC)** All the routes (land, water, and air) that connect an operating
2 military force to a base of operations along which supplies and military forces
3 move. (Joint Pub 1-02)
4

5 **Logistical Support** The providing of billets, bivouac areas, meals, POL supplies, maintenance,
6 medical, and/or other services at military installations or civilian agencies.
7

8 **Logistics Movement Control Center (LMCC)** This element monitors unit arrival into
9 the APOD/SPODs, provides movement control of arriving equipment/
10 personnel, controls the throughput process, and coordinates for
11 transportation requirements beyond organic capability.
12

13 **Logistics-over-the-shore Operations** The loading and unloading of ships without the benefit of
14 fixed port facilities, in friendly or nondefended territory, and, in time of war,
15 during phases of theater development in which there is no opposition by the
16 enemy. Also called LOTS. (Joint Pub 1-02)
17

18 **Marine Logistics Command (MLC)** The USMC will employ the concept of the Marine
19 Logistics Command (MLC) in Major Regional Contingencies (MRCs) to
20 provide operational logistics support, which may include RSOI operations.
21 The Combat Service Support Center (CSSOC) will be the MLC's primary
22 CSS coordination center for units conducting RSOI.
23

24 **Marshaling** 1. The process by which units participating in an amphibious or airborne
25 operations group together or assemble when feasible or move to temporary camps
26 in the vicinity of embarkation points, complete preparations for combat, or
27 prepare for loading. 2. The process of assembling, holding, and organizing
28 supplies and/or equipment, especially vehicles of transportation, for onward
29 movement. See also staging (Joint Pub 1-02)
30

1 **Materials Handling Equipment (MHE)** Mechanical devices for handling of supplies with
2 greater ease and economy. (Joint Pub 1-02)

3
4
5 **Military Sealift Command (MSC)** The US Transportation Command's component command
6 responsible for designated sealift service. Also called MSC. (Joint Pub 1-02)

7
8 **Military Traffic Management Command** The US Transportation Command's component
9 command responsible for military traffic, continental United States air and land
10 transportation, and common user water terminals. Also called MTMC. See also
11 transportation component command.

12
13
14 **Mode of Transport** The various modes used for a movement. For each mode, there are several
15 means of transport. They are: a. inland surface transportation (rail, road, and
16 inland waterway); b. sea transport (coastal and ocean); c. air transportation; and d.
17 pipelines. (Joint Pub 1-02)

18
19 **Movement control** 1. The planning, routing, scheduling, and control of personnel and cargo
20 movements over lines of communications. 2. An organization responsible for the
21 planning, routing, scheduling, and control of personnel and cargo movements over
22 lines of communications. See also non-unit related cargo; non-unit related
23 personnel. (Joint Pub 1-02)

24
25 **Naval Advanced Logistic Support Site (ALSS)** An overseas location used as the primary
26 transshipment point in the theater of operations for logistic support. A naval
27 advanced logistic support site possesses full capabilities for storage,
28 consolidation, and transfer of supplies and for support of forward-deployed units
29 (including replacements units) during major contingency and wartime periods.
30 Naval advanced logistic support sites, with port and airfield facilities in close

proximity, are located within the theater of operations but not near the main battle areas, and must possess the throughput capacity required to accommodate incoming and outgoing intertheater airlift and sealift. When fully activated, the naval advanced logistic support site should consist of facilities and services provided by the HN, augmented by support personnel located in the theater of operations, or both.

Naval Forward Logistic Site (FLS) An overseas location, with port and airfield facilities nearby, which provides logistic support to naval forces within the theater of operations during major contingency and wartime periods. Naval forward logistic sites may be located in close proximity to main battle areas to permit forward staging of services, throughput of high priority cargo, advanced maintenance, and battle damage repair. Naval forward logistic sites are linked to in-theater naval advanced logistic support sites (ALSSs) by intratheater airlift and sealift, but may also serve as transshipment points for intertheater movement of high-priority cargo into areas of direct combat. In providing fleet logistic support, naval forward logistic site capabilities may range from very austere to near those of a naval advanced logistic support site. (Joint Pub 1-02)

Naval Port Control Office The authority established at a port or port complex to coordinate arrangements for logistic support and harbor services to ships under naval control and to otherwise support the naval control of shipping organization. (Joint Pub 1-02)

Navy Cargo Handling Battalion A mobile logistics support unit capable of worldwide deployment in its entirety or in specialized detachments. It is organized, trained, and equipped to: a. load and off-load Navy and Marine Corps cargo carried in maritime prepositioning ships and merchant breakbulk or container ships in all environments; b. to operate an associated temporary ocean cargo terminal; c. load and offload Navy and Marine Corps cargo carried in military-controlled

aircraft; d. to operate an associated expeditionary air cargo terminal. Also called CHB. Three sources of Navy Cargo Handling Battalions are: a. Navy Cargo Handling and Port Group--The active duty, cargo handling, battalion-sized unit composed solely of active duty personnel. Also called NAVCHAPGRU. b. Naval Reserve Cargo Handling Training Battalion--The active duty, cargo handling training battalion composed of both active duty and reserve personnel. Also called NRCHTB. c. Naval Reserve Cargo Handling Battalion--A reserve cargo handling battalion composed solely of selected reserve personnel. Also called NRCHB. (Joint Pub 1-02)

Navy Cargo Handling Force The combined cargo handling units of the Navy, including primarily the Navy Cargo Handling and Port Group, the Naval Reserve Cargo Handling Training Battalion, and the Naval Reserve Cargo Handling Battalion. These units are part of the operating forces and represent the Navy's capability for open ocean cargo handling. (Joint Pub 1-02)

Navy Support Element The Maritime Prepositioning Force element that is composed of naval beach group staff and subordinate unit personnel, a detachment of Navy cargo handling force personnel, and other Navy components, as required. It is tasked with conducting the off-load and ship-to-shore movement of maritime prepositioned equipment/supplies. (Joint Pub 1-02)

Node A location in a mobility system where a movement requirement is originated, processed for onward movement, or terminated. (Joint Pub 1-02)

Non-unit-related Cargo All equipment and supplies requiring transportation to an area of operations, other than those identified as the equipment or accompanying supplies of a specific unit (e.g., resupply, military support for allies, and support for nonmilitary programs, such as civil relief). (Joint Pub 1-02)

Non-unit-related Personnel All personnel requiring transportation to or from an area of operations, other than those assigned to a specific unit (e.g., filler personnel; replacements; temporary duty/temporary additional duty personnel; civilians; medical evacuees; and retrograde personnel). (Joint Pub 1-02)

Onward Movement The movement of troops and equipment from staging areas to the TAAs, and movement of sustainment materiel from staging areas to distribution sites.

Proposed definition, “The relocation of forces capable of meeting the commander’s operational requirements to the initial point of their mission execution. This includes the movement of associated sustainment, equipment and personnel.”

Operation Plan (OPLAN) A plan for a single or series of connected operations to be carried out simultaneously or in succession. It is usually based upon stated assumptions and is the form of directive employed by higher authority to permit subordinate commanders to prepare supporting plans and orders. The designation “plan” is usually used instead of “order” in preparing for operations in advance. An operation plan may be put into effect at a prescribed time or on signal and then becomes the operation order. (JCS Pub 5-02.1).

Port Capacity The estimated capacity of a port or an anchorage to clear cargo in 24 hours usually expressed in tons. (Joint Pub 1-02)

Port Complex A port complex comprises one or more port areas of varying importance whose activities are geographically linked either because these areas are dependent on a common inland transport system or because they constitute a common initial destination for convoys. (Joint Pub 1-02)

Port of Debarkation (POD) The geographic point at which cargo or personnel are discharged. May be a seaport or aerial port of debarkation. For unit requirements, it may or may not coincide with the destination. (Joint Pub 1-02)

1
2 **Port of Embarkation (POE)** The geographic point in a routing scheme from which cargo or
3 personnel depart. May be a seaport or aerial port from which personnel and
4 equipment flow to port of debarkation. For unit and nonunit requirements, it may
5 or may not coincide with the origin. (Joint Pub 1-02)
6

7 **Port Operations Group (POG)** A task organization, under the operational control of
8 the LMCC, for support of ship debarkation at the SPOD.
9

10 **Port Support Activity (PSA)** A flexible support organization composed of mobilization station
11 assets which ensures the equipment of the deploying units is ready to load. The
12 PSA operates unique equipment in conjunction with ship loading operations. The
13 PSA is operationally controlled by the military port commander or TTU
14 commander.
15

16 **Rail Liaison Element (RLE)** Established at each rail head to coordinate between the
17 deploying MAGTF and RHOG.
18

19 **Railhead Operations Group (RHOG)** A task organization, under the operational
20 control of the LMCC, for support of rail operations.
21

22 **Reception** The process of receiving, offloading, marshaling, and transporting of equipment,
23 personnel, and materiel from the strategic and/or intra-theater deployment phase
24 to a sea, air, or surface transportation point of debarkation. (Proposed change to
25 definition #1 in Joint Pub 1-02)
26

27 **Sealift Liaison Element (SLE)** Established at each SPOD to coordinate between the
28 deploying MAGTF and the Port Operations Group (POG).
29

Sending Nations (SN) A nation requesting logistics and administrative support. May also be called “requesting nation”, “user nations”, or “providing nation” depending on the particular situations.

Single Port Management USTRANSCOM through its Transportation Component Command (TCC), Military Traffic Management Command (MTMC), is the DoD designated SPM for all common-user seaports worldwide. The SPM performs those functions necessary to support the strategic flow of the deploying forces’ equipment and sustainment supply in the SPOE and hand-off to the theater CINC in the SPOD. The SPM is responsible for providing strategic deployment status information to the CINC and to workload the SPOD Port Operator based on the CINC’s priorities and guidance. The SPM is responsible through all phases of the theater port operational continuum from a bare beach deployment (LOTS operation) to a totally commercial contract supported deployment.

Staging Assembling, holding, and organizing arriving personnel, materiel, and sustaining materiel in preparation for onward movement. The organizing and preparation for movement of personnel and materiel at designated areas to incrementally build forces capable of meeting the operational commander’s requirements. (Upon approval of this publication, this term and definition is proposed for the next edition of JP 1-02).

Support The actions of a force, or portion thereof, which aids, protects, complements, or sustains any other force

Supported Commander The commander having primary responsibility for all aspects of a task assigned by the Joint Strategic Capabilities Plan or other joint operation planning authority. In the context of joint operation planning, this term refers to the commander who prepares operation plans or operation orders in response to requirements of the Chairman of the Joint Chiefs of Staff. (Joint Pub 1-02)

Supporting Commander A commander who provides augmentation forces or other support to a supported commander or who develops a supporting plan. Includes the designated combatant commands and Defense agencies as appropriate. (Joint Pub 1-02)

Survey, Liaison, and Reconnaissance Party (SLRP) A task organization formed from the MAGTF and NSE, which is introduced into the objective area prior to the arrival of the main body to conduct initial reconnaissance, establish liaison with in-theater authorities, and initiate preparations for the arrival of the main body. (NWP 22-10)

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. (Joint Pub 1-02)

Tactical Airlift Airlift that provides the immediate and responsive air movement and delivery of combat troops and supplies directly into objective areas through airlanding, extraction, airdrop, *and* other *air* delivery techniques; and the air logistics support of all theater forces, including those engaged in combat operations, to meet specific theater objectives and requirements. (USMC) (NWP 1-02)

Tactical Control (TACON) Command authority over assigned or attached forces or commands, or military capability or forces made available for tasking, that is limited to the detailed and, usually, local direction and control of movements or maneuvers necessary to accomplish missions or tasks assigned. Tactical control is inherent in operational control. Tactical control may be delegated to, and exercised at any level at or below the level of combatant command. Also called TACON. See all combatant command; operational control. (Joint Pub 1-02)

Tanker/Airlift Control Center (TACC) The Air Mobility Command direct reporting unit responsible for tasking and controlling operational missions for all activities involving forces supporting US Transportation Command's global air mobility mission. The Tanker Airlift Control Center is comprised of the following functions: current operations, C2, logistics operations, aerial port operations, aeromedical evacuation, flight planning, diplomatic clearances, weather, and intelligence.

Tanker Airlift/Control Element (TALCE) A mobile C2 organization deployed to support strategic and theater air mobility operations at fixed, en route, and deployed locations where air mobility operational support is nonexistent or insufficient. The Tanker Airlift Control Element provides on-site management of air mobility airfield operations to include C2, communications, aerial port services, maintenance, security, transportation, weather, intelligence, and other support functions, as necessary. The Tanker Airlift Control Element is composed of mission support elements from various units and deploys in support of peacetime, contingency, and emergency relief operations on both planned and "no notice" basis. (Joint Pub 1-02)

Task Force 1. A temporary grouping of units, under one commander, formed for the purpose of carrying out a specific operation or mission. 2. Semi-permanent organization of units, under one commander, formed for the purpose of carrying out a continuing specific task. 3. A component of a fleet organized by the commander of a task fleet or higher authority for the accomplishment of a specific task or tasks. (Joint Pub 1-02)

Theater Airlift That airlift assigned or attached to a combatant commander other than the Commander in Chief, US Transportation Command, which provides air movement and delivery of personnel and equipment directly into objective areas through air landing, airdrop, extraction, or other delivery techniques; and the air

logistics support of all theater forces, including those engaged in combat operations, to meet specific theater objectives and requirements. Also *called* intratheater airlift

Throughput The average quantity of cargo and passengers that can pass through a port on a daily basis from arrival at the port to loading onto a ship or plane, or from the discharge from a ship or plane to the exit (clearance) from the port complex. Throughput is usually expressed in measurement tons, short tons, or passengers. Reception and storage limitation may affect final throughput.

Time-Phased Force and Deployment Data (TPFDD) The Joint Planning and Execution System database portion of an operation plan; it contains time-phased force data, non-unit-related cargo and personnel data, and movement data for the operation plan, including: a. In-place units. b. Units to be deployed to support the OPLAN with a priority indicating the desired sequence for their arrival at the port of debarkation. c. Routing of forces to be deployed. d. Movement data associated with deploying forces. e. Estimates of non-unit-related cargo and personnel movements to be conducted concurrently with the deployment of forces. f. Estimate of transportation requirements that must be fulfilled by common user lift resources as well as those requirements that can be fulfilled by assigned or attached transportation resource. Also called TPFDD. (Joint Pub 1-02).

Total Asset Visibility The capability to provide users with timely and accurate information on the location, movement, status, and identity of units, personnel, equipment, and supplies. It also includes the capability to act upon that information to improve overall performance of DoD's logistics practices.

Transportation Component Command (TCC) The three component commands of U.S. Transportation Command: Air Force Air Mobility Command, Navy Military Sealift Command, and Army Military traffic Management Command. Each

1 transportation component command remains a major command of its parent
2 Service and continues to organize, train and equip its forces as specified by law.
3 Each transportation component command also continues to perform Service
4 unique missions. (Joint Pub 1-02)
5

6 **Transportation Feasibility** The ability of US Transportation Command (USTRANSCOM) to
7 successfully execute the time phased force and deployment data (TPFDD) based
8 on:

- 9 (1) Joint Strategic Capabilities Plan (JSCP) guidance and assumptions,
10 (2) supported CINC's Joint Reception, Staging, Onward Movement, and
11 Integration (JRSOI) processes, and
12 (3) ability of supported CINC transportation infrastructure to absorb strategic flow
13 into the theater with minimum backlogs at ports of debarkation (POD).

14 USTRANSCOM will declare a TPFDD transportation feasible if all strategic
15 movements arrive at POD on or before their latest arrival date (LAD) using CINC
16 apportioned lift. Deliveries are measured and optimized by strategic, POD, and
17 theater transportation analysis, modeling, simulation, and expertise.
18

19 **Unified Command** A command with a broad continuing mission under a single commander and
20 composed of significant assigned components of two or more military
21 departments, and which is established and so designated by the President, through
22 the Secretary of Defense with the advice and assistance of the Chairman of the
23 Joint Chiefs of Staff. (Joint Pub 1-02)
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