

CHAPTER 16

RECEPTION OPERATIONS

References

FM 3, Operations, June 2001
FM 54-40, Area Support Group 3 October 1995
FM 100-7, The Army in Theater Operations, 31 May 1995
FM 100-8, Combined Army Operations, 24 November 1997
FM 100-16, Army Operational Support, 31 May 1995
FM 100-17, Mobilization, Deployment, Redeployment, Demobilizations, 28 October 1992
FM 100-17-1, Army Pre-Positioned Afloat Operations, 27 July 1996
FM 100-17-2, Army Pre-Positioned Land, 16 February 1999
FM 100-17-3, Reception, Staging, Onward Movement, and Integration, 17 March 1999

Objectives

- Understand the concept of support for the receipt of forces into a theater of operations
- Describe the planning, coordination, and organization for the receipt of forces into a theater of operations

Background

As discussed in previous chapters the United States is no longer forward deployed at the level maintained during the Cold War, the US Army has become a power projection force. It is smaller than the force that won the Cold War and Desert Storm and based largely in the United States but with a minimal forward presence in Southwest Asia, Korea and Germany. Now and in the future, the Army will deter aggression primarily through its ability to rapidly project lethal, versatile, expandable, and sustainable forces to accomplish objectives rapidly with minimal casualties.

Following the Persian Gulf War, Congress mandated a study of strategic mobility requirements for the post-Cold War Army. This Mobility Requirements Study generated a requirement for the Army to deploy a 5-division corps, together with the required support structure, 8,700 miles-from fort to foxhole-in 75 days. See Figure 16-1 for the Unit Force Closure chart.

<p>The Army must provide a Corps of five Divisions that is tailorable, sustainable, and with airborne, vertical insertion capability. The lead Brigade must be on the ground by C+4, the lead Division by C+12. Two heavy Divisions (via sealift) arrive from CONUS by C+30 (Armored, Mechanized, Air Assault, [mix per Combatant Commander]). The full Corps (five Divisions and a COSCOM) closes by C+75. A fully supported heavy combat Brigade, with sufficient supplies to sustain the Corps until lines of communication are established, must be pre-positioned afloat.</p> <p style="text-align: right;">Mobility Requirements Study</p>
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Major Unit Force Closure	
Airborne Brigade	C+4
Airborne Division	C+12
AWR-3 Brigade	C+15
Two Heavy Divisions	C+30
Two Heavy Divisions	C+75

Figure 16-1. Army Force Closure Timings

NOTE: The above is still the current approved Army requirements by the Joint Chiefs of Staff. General Shinseki, Army Chief of Staff, in October 1999 announced what he has as the Army vision for force closure. As of 1 January 2001 it had not been approved by the Joint Chiefs of Staff.

The Army vision is to have one brigade on the ground by C+3, one light Division by C+4, one heavy brigade afloat by C+3, and by C+30 a five division contingency corps with required CSS.

During major contingencies, forces deploy from power projection platforms within the United States, or from forward bases. The first forces to deploy secure the lodgment for the receipt of follow-on forces. Initial forces generally arrive by air in tactical configuration. They may be followed by personnel transported by air, who draw pre-positioned equipment. Most troops are transported by air, but the majority of equipment travels by sea. Historically, 90 percent of all cargo by weight has been transported by sea, with the remaining 10 percent transported by air. These percentages have remained relatively constant in both major and lesser regional contingencies.

Deployment Segments

Deployments must be planned based on the Joint Force Commander's (JFC's) requirements. It is the JFC who defines success in deployment, establishing what, where, and when force is needed. The force projection challenge is to balance these requirements with the theater's ability to conduct RSO&I operations by properly scheduling the arrival of RSO&I assets in the TPFDD flow.

The functions of RSO&I apply to the entire spectrum of military operations, at all levels of war-strategic, operational, and tactical. Reception is often the interface between the strategic and the operational levels. Staging and onward movement are normally within the operational level. Integration represents the interface between the operational and tactical levels of war.

Processes of RSO&I

The four processes of RSO&I are listed below.

- Reception: The process of unloading personnel and materiel from strategic transport, marshaling the deploying units, transporting them to staging areas, if required, and providing life support to deploying personnel.
- Staging: The process of assembling, holding, and organizing arriving personnel and equipment into units and forces, incrementally building combat power and preparing units for onward movement, and providing life support for the personnel until the unit becomes self-sustaining.
- Onward Movement: The process of moving units and accompanying materiel from reception facilities and staging areas to TAAs or other theater destinations, moving arriving non-unit personnel to gaining commands, and moving arriving sustainment materiel from reception facilities to distribution sites.
- Integration: The synchronized transfer of authority over units and forces to a designated component or functional commander for employment in the theater of operations.

Principles of RSO&I

Four principles guide the development and execution of RSO&I:

- Unity of Command
- Unit Integrity
- Optimum Logistical Footprint
- Unity of Effort

RSO&I in a Contingency Environment

A contingency environment has two entries-Opposed and Unopposed. Both are discussed as follows.

Opposed Entry

Deployments may be either opposed or unopposed. In opposed operations, units must have sufficient combat capability to fight immediately upon arrival in-theater. Units are configured tactically, and are under command and control of the force commander, from origin to destination. In cases where objectives are limited or AO is small, it may be possible for early entry forces to accomplish missions with limited support of follow-on forces. In most cases, the immediate focus of early entry forces will be seizure of a lodgment area to expedite unopposed entry of follow-on forces. Critical planning considerations are the time and force needed to secure lodgment, and the speed of subsequent transition to unopposed entry. The challenge is balancing the competing requirements of force protection and force projection.

Unopposed Entry

In unopposed deployments, personnel routinely move by air, while most unit equipment moves by surface transport. Units are divided into separate groups of passengers and cargo; commanders retain command, but no longer exercise control over multiple parts of units moving by different modes. Various elements of deploying

force arriving in-theater must reach specific locations and reassemble into tactical units before unit commanders can reestablish control. RSO&I maximizes this process.

In contingency operations, early and simultaneous deployment of tactical and operational headquarters, including both combat and logistical command structures, is necessary to meet force closure timelines. Planning and coordination with host nation, allied, and other Service early entry forces ensure adequate allocation of resources to the JFC's priority. Reception and employment of both combat and CSS forces must be monitored to establish and sustain the maximum level of combat power. Throughout deployment, Army forces must maintain flexibility to reconfigure units and adjust deployment sequencing to accommodate the theater commander's requirements.

Deployment Planning Challenge

The ultimate measure of success for any deployment is whether the JFC's requirements for combat power at a designated location and time are met; success is force closure, when and where the JFC wants it. This is the major objective of both deliberate and crisis action planning.

Force Closure is the point in time when a supported commander determines that sufficient personnel and equipment are in the assigned area of operations to carry out assigned tasks.

Joint Pub 1-02

Combat power is built incrementally throughout RSO&I, which often involves multiple iterations of staging and onward movement. Thus, when an armored company is combat ready at the TSB, the ground force commander must have visibility of this potential capability and be able to impact subsequent decisions on onward movement. This visibility requires standing reporting procedures and adequate communication

Tracking Combat Power

Reporting incremental build of combat power begins with well-understood standards for readiness. Assessments of combat power are based on unit capability, rather than simple tallies of numbers of vehicles and weapon systems on hand. Readiness and reporting are inherently operational matters, normally handled through operational channels; however, the theater movement control organization may be an appropriate channel for readiness reporting until headquarters units become operational in-theater.

Theater Infrastructure

Understanding capabilities and limitations of the theater infrastructure, and times at which various infrastructure assets must become available, is essential to developing a successful RSO&I operation.

Theater RSO&I infrastructure is divided into two general categories-organizational capabilities of the theater, for example, military units, host nation support, and so forth; and physical capabilities of the theater, for example, ports, road networks, inland waterway, and so forth.

The theater Combatant Commander has five sources available to provide RSO&I organizational infrastructure, the relative mix of which will vary according to the operation:

- Forward-Deployed Forces.
- Army Pre-positioned Stocks (APS).
- Deploying RSO&I Units.
- Host Nation/Allied Support.
- LOGCAP and other contractor support

Operational Dilemma

The commander's operational dilemma is balancing the need for early deployment of combat forces against the requirement to deploy tailored logistical units that maximize throughput of sustainable combat forces. To resolve this dilemma, the commander must have the ability to see, understand, and balance the flow.

See the Flow

The JFC's Strategic Concept defines force requirements in terms of size, location, and time. The TPFDD defines the force flow needed to meet these requirements. Building the TPFDD requires reverse planning, with the concept identifying the requirements against which the tactical, operational, and strategic plans are developed. The JFC must see what forces have arrived in the theater, their combat capability, and schedule for integration. In addition to in-theater information, the JFC requires a forecast of units scheduled to arrive in-theater and projected integration dates.

Understand the Flow

Knowledge of the RSO&I infrastructure present in the theater, coupled with assets arriving via the TPFDD, is critical to understanding the flow. The Intelligence Preparation of the Battlefield (IPB) process of defining and describing the battlefield, the enemy, and developing enemy courses of action are crucial to understanding the flow. The IPB process provides an awareness of other demands on the infrastructure that may impact our use. Understanding the flow includes the recognition that change is inevitable.

Regardless of the cause, the commander must understand and anticipate the impact of change. For example, when changes are made to the TPFDD, there is a high potential for a sequential pattern of disruption. A unit displaced by change may not simply move on the next available lift, but may require reprogramming for movement at a later time.

RSO&I and Sustainment

Force closure is the primary objective of the RSO&I operation. Because force closure has a direct impact on the ability of the commander to implement his concept of

operations, the RSO&I operation is characterized by a high degree of involvement by the operational commander in concert with his logistics staff and logistics organizations.

Although sustainment and supply buildup occur throughout RSO&I, with as much as one quarter of all moved tonnage devoted to it, the focus during RSO&I is projecting and integrating combat units. As force closure is achieved, RSO&I transitions to sustainment operations. During this transition, the operational commander's priorities change from force buildup to combat operations.

There are obvious advantages of designating one organization as the RSO&I command and control element. It avoids duplication of effort, waste of resources, and competition for critical facilities. It optimizes use of valuable strategic lift. It allows integrated and specific reporting of activities related to incremental buildup of combat forces. Although the specific responsible organization may change from one phase to another or between different contingencies, the principle of unity of command must be maintained. One organization needs to be able to control and operate the entire RSO&I process to maximize the throughput of forces and materiel. The organization must be able to adjust resources based upon the deployment flows into the air and seaports, control movements in the area of operations, and provide life support to personnel arriving in theater.

The JFC will routinely designate the Army Service Component Command (ASCC) as executive agent for RSO&I. The ASCC will designate the senior support commander to provide unity of command to execute RSO&I and specific units will be assigned or OPCON to the senior support command.

The largest support command is the Theater Support Command (TSC). It is a major subordinate command of the ASCC. It may, at the option of the ASCC Commander, centralize control of CSS and some CS functions dependent on theater requirements. It is modularly deployable. Elements can deploy early as part of a Major Theater War to establish the communication zone (COMMZ) or may augment with required functionality the primary logistical organization in smaller operations.

Time-Phased Force Deployment Data (TPFDD)

The TPFDD prioritizes arrival of forces in theater. RSO&I effectiveness is dependent upon proper TPFDD development. For example, the JFC places rapid port clearance capabilities early in the TPFDD, as well as coordinating personnel and equipment flows on the TPFDD, so they can be united without delay at ports or staging areas. Decisions on force mix and sequence are critical, because adjustments after deployments begin become difficult to implement. Moreover, changes cause ripple effects and may seriously disrupt the flow to the battlefield.

The JFC also ensures the TPFDD prioritizes joint rather than individual component RSO&I needs. Components normally build their portion of the TPFDD based on their Service requirements, rather than on the needs of the entire force. This results in duplication of capabilities, wastes valuable lift, and siphons support from the main effort. Consequently, the TPFDD must contain the required capability and nothing more.

Under normal circumstances, troops deploy by air, while equipment deploys by sea. The speed differential between air and sea transportation is the fundamental cause of complexity and potential difficulties in the staging process. Troops and equipment must be sequenced in the TPFDD so that both arrive

(nearly) simultaneously, expeditiously unite, and ready themselves for onward movement.

Troops arriving too early must wait an extended time for their equipment to arrive. Sustenance, housing, and sanitation then become serious problems. Moreover, the mass of immobile, unprotected troops presents an inviting and vulnerable target. On the other hand, if equipment arrives much earlier than the troops. Ports of debarkation can become congested, and space management becomes critical.

RSO&I Resources

The RSO&I planner has access to a number of RSO&I resources or enablers. They include organizations, personnel and equipment supporting these organizations, contract or based support, and the information management systems used by these organizations. Examples are:

- **Composite Transportation Group (CTG)**: is able to operate all theater ports (aerial and sea), other nodes (railheads, trailer transfer points, etc.), inland transportation (road and water), and assorted life support. It can perform harbor operations, terminal and terminal service operations, cargo transfer operations, cargo documentation, A/DACG and railhead operations, movements control and surface transportation operations (truck). The CTG is assigned Army watercraft and lighterage and is capable of conducting in-stream off-load operations. The CTG provides the supported JFC with RSO&I capability throughout the theater of operations.
- **Cargo Transfer Companies (CTC)**: are units within the CTG and are able to load, discharge, and transload cargo at air, rail, truck terminals, and water terminals located in fixed ports or LOTS operations. They also supplement cargo/supply-handling operations at corps and division areas to alleviate cargo backlogs.
- **Corps Support Group (CSG)**: provides command and control, CSS functional support, and life support capabilities. Specific capabilities are tailored to the commander's needs. It provides the logistics resources of supply, maintenance, field services and transportation to support corps soldiers and the corps force. Whether CONUS based or part of a forward presence force, it must be prepared to deploy on short notice for contingency operations in support of joint or combined operations. See FM 54-30 for more information on the Corps Support Group.
- **Area Support Group (ASG)**: provides support to forces in power projection roles. Selected ASG elements may augment the COSCOM or DISCOM when support requirements exceed their support capabilities. They may deploy from a forward presence site in response to a crisis or remain at that forward site to receive and process follow-on forces. ASGs may tailor a slice of support to set up a forward support base or provide support at a staging area. An ASG is a tailored CSS organization in the COMMZ. It has area responsibility for supply (including petroleum support), field service support (including water purification and mortuary affairs), and maintenance (including aviation intermediate maintenance). It may also have area responsibility for real property maintenance activity. The ASG may include other capabilities to fulfill designated theater support responsibilities.
- **Military Traffic Management Command (MTMC) Port Management Cell**: provides a port management cell or reinforces an existing cell to support the JFC.

The cell will workload the port operator based on the theater commander's priorities and intent. The cell will assist with OPLAN development and analysis, conduct assessment of ports, and recommend the size and type of port operations required. The cell will establish liaison with host nation port authorities and develop statements of work for contracting facilities and stevedore labor, if available. The cell will provide ADP and communication capabilities in support of water terminal operations. It will provide common-user container management services.

- **Army Movement Control Organizations**: contribute to the joint theater movement control plan. In the COMMZ, the Movement Control Agency (MCA) supports echelons above corps; in the corps AOR, Movement Control Battalions (MCBs) provide support; and in division AORs, the Division Transportation Officer (DTO) is responsible for movement control.
- **Allied and Host Nation Support (HNS)**: provide civil and/or military assistance to US forces during peacetime, crises or emergencies, or war, based on mutual agreements. If available, Allied and HNS can be a significant military force multiplier. Properly planned for and utilized, it can augment deployment shortfalls or requirements and assist deploying and deployed units, and therefore reduce the requirement for strategic lift assets.
- **Local Contracting**: provides use of local resources, such as truck drivers, warehousing, stevedores, etc., which can reduce the RSO&I footprint by offsetting the requirement for US forces.
- **Theater Support Command (TSC)**: is a major subordinate command of the ASCC. It may, at the option of the ASCC Commander, centralize control of CSS and some CS functions dependent on theater requirements. It is modularly deployable. Elements can deploy early as part of a Major Theater War to establish the communication zone (COMMZ) or may augment with required functionality the primary logistical organization in smaller operations.
- **Medical Command (MEDCOM)**: is the single medical manager for combat health support in the theater.
- **Logistics Civil Augmentation Program (LOGCAP)**: is contractor based support arrangement made in peacetime designed to support Army forces in contingency operations worldwide. The concept is to maintain, based on regional needs, a worldwide umbrella contract. The program includes the contracting equivalent of contingency plans for various regions. It allows for the swift acquisition of contract logistic support required in crisis. The JTF commander may choose to execute elements of the plan to increase flexibility and to fill shortfalls in the force as he evaluates the TPFDD. He must decide where to use force structure to accomplish the mission and where contract support can be used.

Equipment needed for RSO&I operations is either organic to enabling organizations, or included in:

- **Army Pre-positioned Stocks Afloat (APS-3)**: allows the early deployment of Army heavy brigade forces, theater-opening CS/CSS forces, force provider, port-opening capability, and sustainment stocks in order to minimize initial requirement for strategic lift. The sustainment stocks, unit equipment, and port opening packages are pre-positioned on Military Sealift Command vessels that are home based in Diego Garcia and Guam. The vessels and the pre-positioned equipment are both

subject to cyclic maintenance schedules. The schedules are coordinated by the Army Materiel Command. The vessels can be sailed worldwide in response to any contingency. Additional information on the ASP-3 program is available in FM 100-17-1, *Army Pre-positioned Afloat Operations*.

- **Army Pre-positioned Stocks Land (APS-2 Europe), (APS-4 Korea), (APS-5 SWA)**: allow early deployment of a heavy brigade in Korea and a heavy division plus in both Europe and SWA by C+4. These pre-positioned sets of equipment are essential for timely support of U.S. national military strategy in areas of U.S. national interests and treaty obligations. Fixed land based sites store Army War Reserve Pre-positioned Sets of combat and CS/CSS equipment, Army War Reserve Operational Project stocks (e.g., chemical defense equipment, cold weather clothing, petroleum distribution equipment, etc.) and Army War Reserves Sustainment. Land based sets can be used to support a theater lodgment to allow off-load of APS-3 equipment, and can be shipped to support any theater worldwide. For more information see FM 100-17-2, *Army Pre-positioned Land*.
- **Theater Opening Force Modules (TOFM)**: are modules of selected logistics functions designed to provide the deploying force the capability to open air and seaports and establish RSO&I capability in theater. They are available for employment across the full spectrum of military operations. Figure 16-2 identifies the TOFMs. Additional information on the TOFMs is available in FM 100-17-1, *Army Pre-positioned Afloat Operations*.

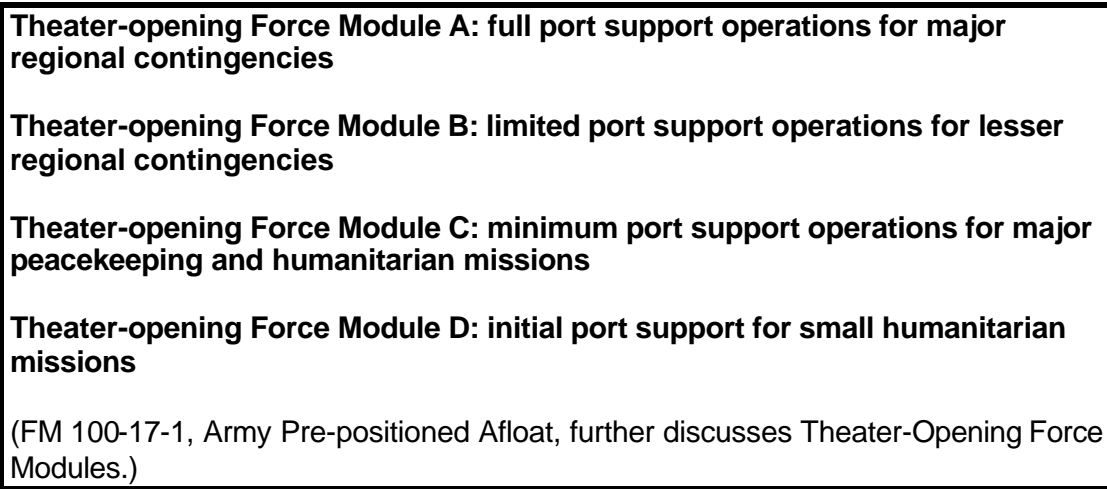


Figure 16- 2. Theater Opening Force Modules (TOFMs)

In an ideal situation, secure bases are available in the area of operations (AO) for RSO&I and continued support of the deploying force. Unfortunately, the very situation that compels deployment of US forces may negate the advantage of basing within the AO. The Joint Forces Commander (JFC) weighs requirements against the risk of basing within the AO. The theater operational situation may constrain the joint commander to select and prepare an Intermediate Staging Base (ISB) (Figure 16-3). The ISB is located within the theater of operations and outside of the combat zone and area of operations. In cases where the joint force must secure a lodgment in order to project the force, an ISB may be critical to success.

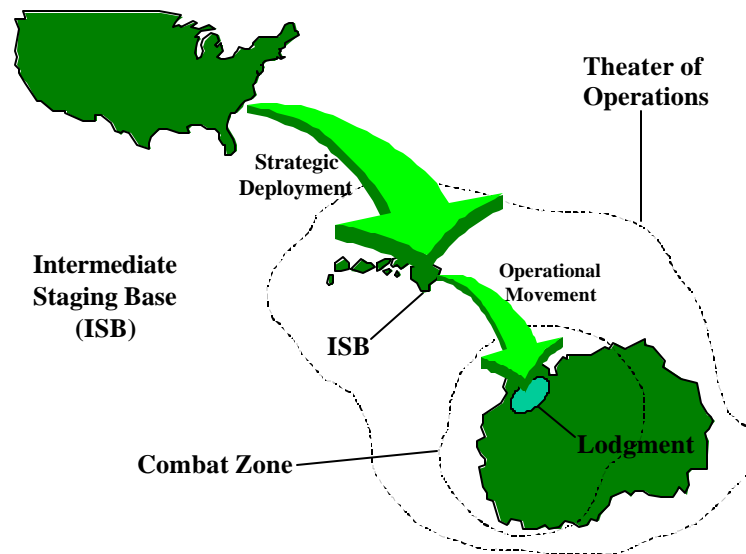


Figure 16- 3. Intermediate Staging Base

If established, the ISB may be the initial theater reception and staging facility. Deploying forces debark from strategic lift, reassemble, and prepare for missions in the AO.

Onward movement from the ISB to the combat zone may be multimodal and require some level of reassembly in the AO. Transportation assets employed in onward movement will normally include strategic and theater assets including truck, rail, sea and airlift. These movements are a part of deployment and should be included in the TPFDD.

The location of the ISB is dependent on a number of variables including distance to combat zone, host nation access, ports, and tempo of operations. Coordination with the host nation for use of an ISB is a State Department responsibility.

The selection of an ISB is a JFC decision. However, if the Army is tasked to operate the ISB it should have a primary role in the selection process. The ISB should include properly sequenced and sufficient Army C2, CS, CSS, and joint support to enable projecting the force into the combat zone. The ISB should be shielded from long-range engagement systems, including missile, SOF, and terrorists.

The ISB may serve as the principle staging base for entry operations, which allows the joint commander to project the maximum number of forces into the combat zone. For example, armored forces arrive at the ISB by strategic air and sealift. They reassemble, prepare for combat operations, and conduct a joint entry operation using Army watercraft.

The longevity of the ISB varies according to circumstance. The ISB may function throughout the operation serving as a secure facility for split-based operations which include selected logistic management functions that can be accomplished from home station or from a forward based location, deploying only those functional capabilities absolutely necessary into the AO. The ISB may continue to function because of superior air and sea bases. In an austere unstable area, it may also continue to serve as a rest

and relaxation site. However, if the ISB is a great distance from the AO, its usefulness diminishes. As soon as the lodgment has been expanded and the tactical situation permits, the JFC normally establishes a theater staging base within the AO as part of the RSO&I process.

RECEPTION

Reception is the process of unloading personnel and materiel from strategic transport, marshaling the deploying units, transporting them to staging areas if required, and providing life support to deploying personnel.
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GENERAL

As the initial step in introducing combat power, reception can determine success or failure of an entire operation. It must be thoroughly planned and carefully executed. Reception from strategic lift is implemented at or near designated air and seaports of debarkation (under some circumstances, e.g., Operation Joint Endeavor, it can also occur at rail facilities), under control of the JTF commander. While the reception plan for each theater may vary, reception capacity should, at a minimum, equal planned strategic lift delivery capability.

The Intelligence Preparation of the Battlefield (IPB) and analysis of theater reception capability provide an understanding of impacts the host nation, other Services, other nations' forces, and governmental and non-governmental agencies have when competing for reception at airfields and seaports. For example, in Desert Storm at the Port of Dammam, 33 total berths were available, yet no more than 17 were used because the remaining berths were dedicated to domestic Saudi commerce. It is also possible a USMC Marine Expeditionary Force (MEF) may arrive in the theater simultaneously with Army Pre-positioned Stocks (APS-3) afloat. In some geographic areas, both could be going through the same port.

For the first three weeks of strategic deployment the aerial port is the lifeline to the frontline. All that is not pre-positioned or available from the host nation comes through the aerial port. After three weeks, the first surge sealift ships arrive to begin a dramatic increase of forces. Airlift remains a critical element, but most combat power of the multiple heavy divisions arrives through seaports.

It is during this three week time period that reception assets required for meeting crucial increases in force flow for the buildup phase must arrive in theater. The first ship arriving from the US begins closing the heavy force in theater. This event is called "Sea LOC closure," and it starts a dramatic increase in the amount of tonnage flowing into the theater. Although airlift continues to be a critical element of the force flow, the volume of tonnage is shifted to sealift. While the reception of sustainment stocks begins during the halt phase and continues throughout the deployment, the peak for the sustainment flow normally occurs after force closure is achieved.

Prior to the arrival of this brigade the selected theater opening force module arrives and becomes operational. This module includes elements of the composite transportation group and the supporting headquarters. Force projection timeline requirements call for the initial brigade to be in theater at C+4, draw the pre-positioned equipment, and be operational within 96 hours.

During this time, the lodgment is expanded to ensure sufficient capability to receive the massive flow of equipment and personnel. These flows generate a requirement for multiple seaports. Arriving personnel depart the airfield for the theater staging base rather than the seaport to marry-up with their equipment because of insufficient physical space in the seaport to accommodate them.

The first heavy division must be operational by C+24. To meet this timeline, equipment or personnel must clear the aerial port in 2 hours after arrival, while ships must be discharged in 2 or 3 days.

Aerial ports of debarkation (APOD) and seaports of debarkation (SPODs) should, in most cases, be considered integral parts of a single reception complex, unless the distance separating them precludes mutual support. Reception capacity depends on:

- Harbor, port, and airfield characteristics
- Availability of labor and port services
- Offloading and holding space
- Condition and capacity of exit routes
- Efficiency of movement control systems

Port Clearance

Two factors determine reception throughput: reception capacity and clearance capability. All ports have finite processing and storage space, and unless personnel and equipment are cleared quickly, the port will become congested and unable to receive forces at the required rate of delivery. **Three factors contributing to efficient port clearance are documentation, movement control, and adequate container handling equipment and personnel.** Port operators need timely and accurate documentation including information on forces and equipment arriving in theater. Efficient movement control assures smooth flow of those forces and equipment according to operational priorities.

Airports and Seaports Of Debarkation

Aerial Port of Debarkation (APOD)

The primary airlift challenge is lack of airports not the lack of aircraft. Consequently, maximum throughput at limited airports is paramount. The APOD is by its very nature a joint facility and will likely also be a multinational facility. It is a port of debarkation for deploying forces, and a port of embarkation for forces moving to other theaters and noncombatant evacuation. The host nation may limit the APOD to military use or the military may be sharing the facility with commercial activities. The military will most likely be competing for use of the APOD with other governmental and non-governmental agencies.

The APOD serves as the primary port of entry for all deploying personnel, as well as for early entry forces normally airlifted into theater together with their equipment. Figure 16-4 portrays the responsibility for APOD operations divided between the Army and USAF, with the Air Force responsible for airfield including air terminal control, loading, unloading, and servicing of aircraft. The Army is responsible for clearing personnel and cargo and for life support as required. Air Force/Army interface occurs between the Air Force Tanker Airlift Control Element (TALCE) and the Army Arrival/Departure Airfield Control Group (A/DACG) and Port Movement Control Detachments. Their respective functions are described below:

- **Tanker Airlift Control Element (TALCE)** - USTRANSCOM TALCE operates the airfield. It is responsible for ramp operations, aircraft parking, and supervising off-load operations. The TALCE releases planeloads to the A/DACG for airfield clearance.
- **Arrival/Departure Airfield Control Group (A/DACG)** - The Army Cargo Transfer Company is assigned the A/DACG mission. The A/DACG conducts airfield clearance operations by receiving and processing planeloads for release and onward movement. (A/DACG is a mission not a unit).
- **Port Movement Control Team** – It is an Army movement control team assigned to an air terminal to coordinate onward movement of personnel, unit equipment, and cargo.

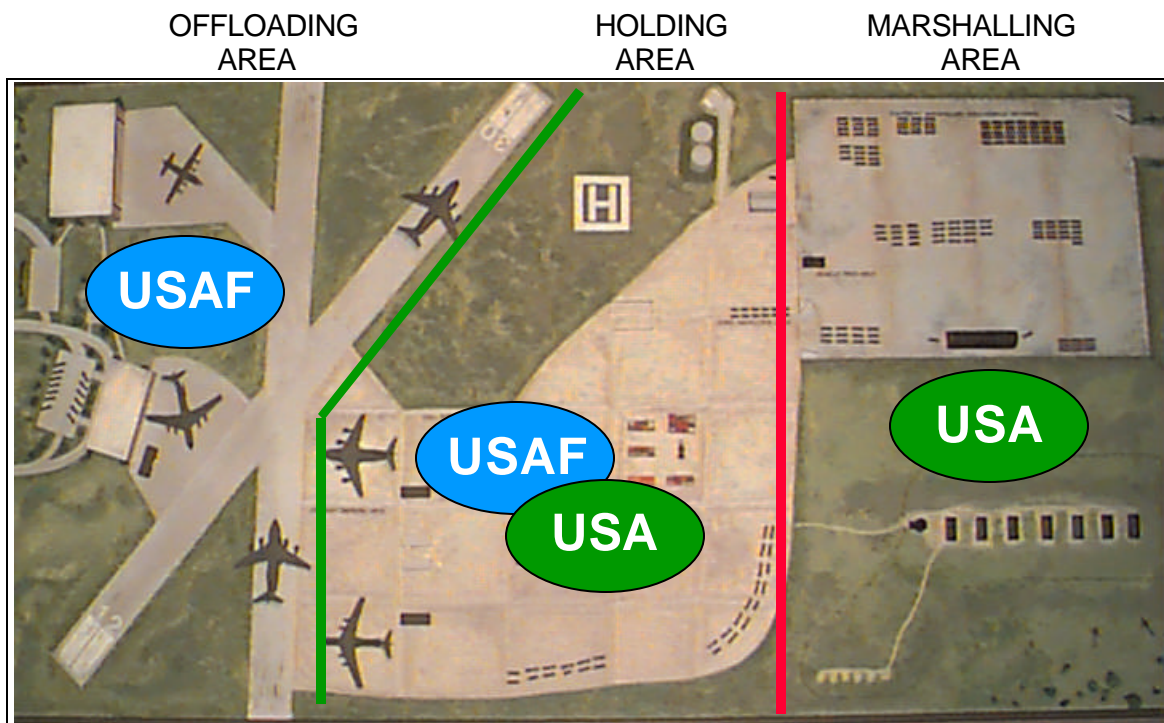


Figure 16-4. Division of Responsibilities in the APOD

Necessary communication, personnel, and cargo handling equipment must be in place to facilitate rapid movement out of the airport. Both the TALCE and the A/DACG should thus be included in the lead elements of the deploying force. The TALCE controls all activities at the off-load ramp area and supervises aircraft off-loading. An element of the senior logistics command, the A/DACG escorts loads and personnel to holding areas, i.e., it clears the airfield and ensures airfield operations and strategic airflow are not limited because of the accumulation of cargo.

With responsibility divided between the Army and the Air Force, two chains of command exist within the aerial port, which can result in confusion and a variety of other problems. Given this command relationship, potential for conflicting priorities necessitates careful planning and coordination during the reception process. For example, something straightforward as security responsibilities becomes complicated

when there are two chains of commands at the same site. Special attention must be paid to ensure that airfield security, the Air Force responsibility, and area security, an Army responsibility is well coordinated.

Maximum on Ground (MOG)

There are two constraining factors for airfields. The first is the parking MOG, the number of aircraft that can fit on the ground. The second constraining factor is the working MOG, how many of the parked aircraft can be worked simultaneously. Optimally, working MOG should equal parking MOG. In Dhahran there were 114 acres of 463L pallets on the ground when the ground war kicked off. The inability to clear the pallets reduced the working MOG and therefore reduced the throughput capability of the airfield.

In Operation Joint Endeavor, the Army established a heliport to reassemble helicopters that were shipped via 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

Planning and Coordination Responsibilities

Theater Combatant Commander:

- Selects APOD (in coordination with USTRANSCOM).
- Designates Service Component to provide A/DACG (normally the Army, as the primary user, will be tasked to provide the A/DACG).

USTRANSCOM:

- Opens or activates the APOD.
- Provides the TALCE to manage APOD operations.

Air Force:

- Provides base operating support to Air Force units stationed or transiting through the APOD
- Provides common-user communications.

Army:

- Provides the A/DACG. Its mission is to facilitate the efficient flow of units through the APOD. Failure to deploy the A/DACG early will greatly degrade the rapid build of combat power in theater.
- It provides life support to Army units stationed or transiting through the APOD (support will normally be provided by an ASG).

(Note, the A/DACG needs to be a lead element during the deployment process)

Joint Movements Center (JMC)/Movement Control Center (MCC):

- Develops movement plan to support theater combatant commander's campaign.
- Coordinates deployment units' in theater move to their TSB or TAA.

TALCE:

- Advise the A/DACG of the airflow and expected arrival of aircraft.
- Plan and supervise aircraft parking.
- Receive passenger and cargo manifests from the loadmaster.
- Supervise off-loading the aircraft (normally accomplished by the aerial port squadron), including removal of shoring and dunnage.
- Provide all MHE and special off-loading equipment, including operators.
- Ensure communications between the TALCE and A/DACG and all functional areas of the TALCE
- Inform the A/DACG of any change in operations.
- Release the load to the A/DACG at the established release point.

A/DACG:

- Maintain coordination with the TALCE and the deploying unit (if the A/DACG is the lead element, it will immediately coordinate with the TALCE upon its arrival).
- Maintain records of personnel and equipment received and cleared.
- Provide off-load teams with pusher vehicles.
- Coordinate with the TALCE for recovery and storage of shoring materials.
- Provide fuel, oil and minor maintenance for transported vehicles.
- Provide or coordinate for emergency services as required.
- Establishes temporary storage area.

Deploying Unit:

- Provide unit liaison personnel to the A/DACG.
- Assist the A/DACG as required.
- Provide assistance to primary loadmaster.
- Receive instructions from the off-load team chief.
- Ensure that all aircraft tie-down equipment, pallets, and nets are returned to the TALCE.
- Provide one copy of the passenger and cargo manifests to the A/DACG.
- Coordinates with JMC/MCC (Port MCT) and prepares unit for movement to their AO or ISB.

The main challenge at the ports of debarkation is to clear the ports to reduce work slowdowns and interruptions. Therefore, personnel arriving at the APOD must quickly move to one of the following sites:

- Directly to the sea port of debarkation to receive unit equipment (as in the case of Army Pre-positioning Afloat)
- To an in theater staging base
- To land preposition sites
- To waiting transportation for movement to one of the areas above

Seaport of Debarkation (SPOD)

Activities at seaports are normally joint, multinational, and commercial operations. Seaports serve as ports of debarkation for arriving forces and simultaneously as ports of embarkation for forces deploying to other theaters of operations. Supported combatant commanders have several options for management of seaport operations in their theater. These options include the use of deployable active component transportation groups, reserve component transportation terminal groups, or MTMC under a command arrangement agreement (CAA) to operate some or all of the theater water terminals USTRANSCOM through MTMC is the DOD-designated Single Port Manager (SPM) for all common user ports 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 JFC in the SPOD. The SPM is responsible for providing strategic deployment status information to the JFC and to workload the SPOD port operator based on the JFC's priorities and guidance. The SPM is responsible through all phases of theater port operational continuum from bare beach deployments (LOTS operations) to a totally commercial contract supported deployment.

Types of Seaports

There are three categories of ports that commanders must plan for: improved, world-class ports; unimproved or degraded ports; and bare beach or no port environment, where Logistics Over the Shore (LOTS) operations are necessary. World-class ports are like those found in Dammam, Saudi Arabia and Pusan, Korea. Unimproved ports are like the ones in Somalia and Haiti or an improved port that was purposely degraded like the Port of Kuwait during Desert Storm.

The Mobility Requirement Study found that port denial is one of the most likely early scenarios in deployment. An enemy studying past U. S. military operations would quickly deduce that the place to stop the Army is at the port. The least desirable option is bare beach because of the time

The SPOD consist of two main areas (as shown in Figure 16-5): the **docks** and the **cargo holding area**. Cargo handling units will offload cargo and equipment from the vessels to the docks. Port support activities (PSA) will move the cargo and equipment from the docks to the cargo holding area, from which the deploying unit will draw.

SPOD Key Players

- **Military Traffic Management Command (MTMC) Tiger Team** - The MTMC Tiger Team is the MTMC port manager advanced party. The teams mission includes liaison with port authorities and contract coordination. The team is the automated link to the Worldwide Port System and provides the supported Combatant Commander visibility over inbound ocean cargo.

Composite Transportation Group (CTG) - The CTG serves as the port operator. Its functional activities include harbor operations, terminal and terminal service operations, cargo transfer operations, cargo documentation, AACG and railhead operations,

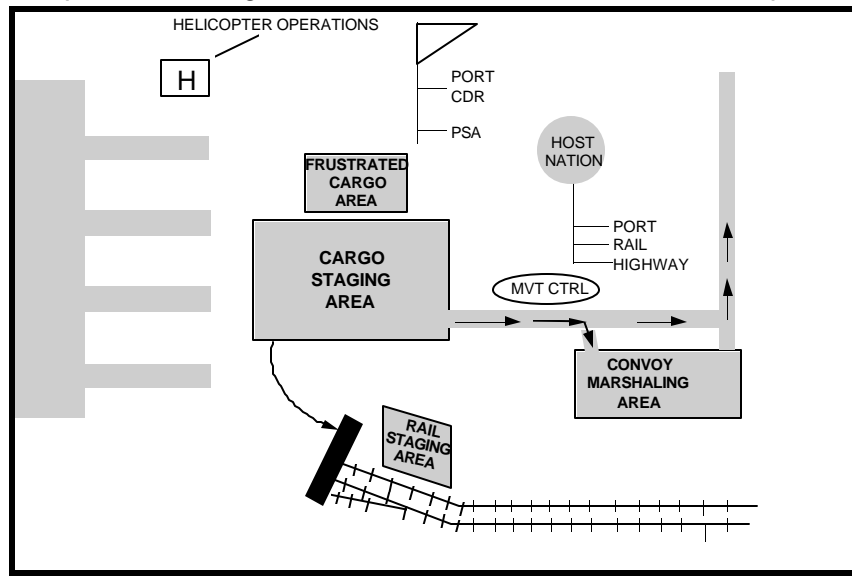


Figure 16-5. Typical Seaport of Debarkation (SPOD)

movement control and surface transportation operations (truck). The CTG is assigned Army watercraft and lighterage and is capable of conducting in-stream off-load operations. **The CTG provides the supported Combatant Commander RSO&I capability.**

- **Army Materiel Command - Forward (AMC-Fwd)** - The U.S. Army Materiel Command (USAMC) is responsible for the management and accountability of all unit equipment and supplies aboard Army Pre-positioned Afloat (APA) ships except for Class VIII (medical material), which is a U.S. Army Medical Materiel Agency (USAMMA) responsibility. To facilitate off loading APA ships, AMC-Fwd should be one of the first elements to arrive in theater after the composite transportation groups (CTG), corps support group (CSG), and the Military Traffic Management Command (MTMC) have opened the sea port of debarkation (SPOD).

USAMC responsibilities:

- Manage all equipment and supplies (except Class VIII) loaded aboard APA vessels.
- Conduct periodic inspections and perform care of supplies in storage on APA materiel to prevent deterioration and assure equipment is maintained in a 10/20 standard.
- Develop and coordinate issue and accountability procedures for APA stocks.
- Resource and supervise the Off-Load Preparatory Party (OPP). If deploying unit personnel augments the OPP, AMC maintains responsibility

for supervising the OPP. The Military Sealift Command (MSC) provides life support for the OPP aboard APA ships.

AMC-Fwd responsibilities:

Coordinate with the CTG, CSG, or MTMC for discharge operations.

- Coordinate with the CTG or CSG for life support.
 - Utilize issue and accountability procedures, developed by USAMC, to issue APA stocks from the APA vessels to the force commanders.
 - Control APA stocks, not issued to APA units, until issue to other units is directed by the ASCC.
-
- **Off-load Preparation Party (OPP)** - The OPP is a temporary task organization that consists of USAMC personnel, possibly augmented by deploying unit personnel. Its task is to prepare APS-3 weapon systems and equipment aboard Army Pre-positioned Afloat (APA) ships for operations, off-loading, and issuance to units at the SPOD. Vigorous OPP operations conducted while the APS-3 ships are still enroute to the SPOD decrease the deploying unit's stay in the reception and staging areas. Ideally, the OPP should be aboard the APA ships not later than 96 hours prior to the ships' arrival at the SPOD.
 - **Port Support Activity (PSA)** - The PSA is a temporary military augmentation organization comprised of personnel with specific skills. Its mission is to support the port operator in vessel offloading operations by receiving, processing, and clearing cargo at the SPOD. The PSA units should be prioritized on the TPFDD to arrive approximately 24 hours prior to the ships' arrival at the SPOD. Upon the PSA arrival at the SPOD, it becomes OPCON to the port operator. Size of the SPOD governs the size of the PSA, but as a general rule, the PSA should be company size for a deploying brigade, battalion size for a deploying division, and brigade size for a deploying corps. The PSA mission can be accomplished either by a rotation of deploying units or by designating a specific unit for the duration of the deployment. The PSA is most effective when a single unit is designated.
 - **Survey, Liaison, Reconnaissance Party (SLRP)** - The SLRP is a task organization comprised of representatives from designated support organizations, e.g., composite transportation groups, the Military Traffic Management Command (MTMC) and liaison personnel from the deploying combat unit. The mission of the SLRP is to make an initial assessment and establish the reception capabilities in the AO.

The capability of the port, sometimes referred to as the throughput capability, is a critical planning factor. The planner must ensure that the port is capable of receiving the strategic flow planned. The ability to conduct in-stream off-load operations can expand a port's reception capability. A smaller port without the capability to receive large vessels can often be used in conjunction with in-stream off-load operations

Port Selection

Seaport and airfield throughput capacities significantly influence the speed, order, and, to a large extent the types of units that can deploy through them.

Consequently, before thought is given to actual deployment of forces, planners must evaluate capacity of available airfields and ports within the area of operations, as well as the transportation networks linking them with each other and the interior. Moreover, diplomatic and military contacts should be made at the earliest possible opportunity with the host nations controlling key facilities and rights of way.

METT-TC considerations and the theater transportation infrastructure must guide the sequence, type, and size of forces and materiel arriving at ports of debarkation. These decisions impact speed of combat buildup and development of the theater. For example, when opposed entry is likely, commanders may have to seize and secure airfields and seaports to permit insertion of follow-on forces. Afterwards, it will be necessary to repair damaged facilities in order to process arriving units at the required rate. Even in the event of unopposed entry, ports of debarkation will undoubtedly still require improvement and repair to accommodate high throughput rates required for force closure. Thus, the early entry of units such as cargo transfer companies, composite transportation groups, and Army watercraft is critical to offloading materiel, clearing ports and consequently speeding deployment.

Reception Functions

Reception functions are activities facilitating throughput at the ports of debarkation. They include command and control (C2), movement control, and port operations.

Command and Control (C2)

Like any other in-theater activity, reception is under command and control of the JFC. Reception planning and execution, however, is the responsibility of the commander assigned the overall RSO&I mission. This designation can require an augmentation of functional units capable of conducting RSO&I and an early presence on the TPFDD.

The Theater Support Command (TSC) is organized to conduct RSO&I for large deployments while the Theater Opening Force Modules (TOFM) are designed specifically to perform RSO&I for smaller deployments. If the JFC determines a TSC or TOFM is needed, it should be positioned early in the TPFDD flow. TOFMs are configured according to the size of the deploying force.

The arrival of strategic air and sealift will be controlled by the JFC through the USTRANSCOM element attached to his staff. Strategic lift assets remain under command of USTRANSCOM and cannot be retained or diverted by the JFC without concurrence of USTRANSCOM. The APOD and SPOD will normally be managed by AMC and MTMC respectively, and operated by the designated logistics command under C² of the JFC. Movement control in-theater is the responsibility of the JFC, and should not be delegated below that level.

It should be noted that reception activities continue after force closure is achieved, in order to facilitate arrival and processing of sustainment stocks and unit replacements. These sustainment activities do not have as strong operational emphasis (hands-on participation of the operational commander) as does RSO&I.

Theater Support Commands or Area Support Groups are the preferred unit to command and control force closure operations in developed theaters. A Corps Support Group or a COSCOM (with a Composite Transportation Group under OPCON) is preferred for operations in immature theaters.

ARCENT Battlebook

Movement Control

Movement control is a subset of command and control. Efficient movement control allows commanders to redirect forces and rapidly compensate for disruptions in the LOC. A movement control element must be positioned at each reception node, and remain in constant communication with USTRANSCOM elements on-site, and with other movement control elements in-theater. A well-disciplined and centralized system must be implemented to control movements along all LOCS. The movement control system is responsible for establishing protocols with host/allied nations concerning use of available transportation nodes and links.

Port Operations

As outlined in the Unified Command Plan, USTRANSCOM has the mission to provide worldwide common-user air and seaport terminal services. Thus, to ensure consistency in common user ports worldwide, USTRANSCOM through its components AMC and MTMC will normally manage common-user air and sea POEs and PODs and workload the port operator based on the JFC's priorities and intent. The port management function remains a military responsibility through all phases of a theater port operation continuum. Conversely, the port operator can be military, host nation, contractor, or a combination thereof.

Port Security

Seaports represent lucrative targets and must be secured. Efficiency of operations can reduce the threat to forces and equipment being processed through the port but the port's physical facilities remain vulnerable. Security for the port complex is normally provided pierside and waterside. The naval component is normally responsible for the waterside of the port, with the USCG providing that security. Pierside security is provided through port security units and their linkage to the rear area protection organization and the base cluster defense plan.

Responsibilities

Theater Combatant Commander

- Selects SPOD (in coordination with USTRANSCOM).
- Designates MTMC (through USTRANSCOM) and/or Service Component to provide the port commander, managers, and operators and subordinate terminal units (normally the Army, as the primary user, will be tasked to provide the port commander and operators, and the port managers, if MTMC is not deployed with these units).

USTRANSCOM:

- Assists the theater combatant commander in SPOD selection and TPFDL development.
- Provides MTMC assets to manage the port (if requested by the theater combatant commander).

Army:

- Organizes SLRP to conduct port and SPOD assessment, establish contact with local port authorities, and determine availability of HNS in terms of both labor and equipment.
- Provides port commander and operators to establish and operate the SPOD.
- Provides the RSO&I HQs, as directed by the theater combatant commander.
- Provides life support to Army units stationed or transiting through the SPOD (support will normally be provided through an ASG).
- Provides port support activity (PSA) to facilitate/augment moving supplies and equipment from the docks to the equipment holding area.

Joint Movements Center (JMC)/Movement Control Center (MCC):

- Develops movement plan to support theater combatant commander's campaign.
- Coordinates in theater movement.

MTMC:

- Manages port operations as directed by the theater combatant commander.
- Augment SLRP assessment team.

Port Operators:

- Conducts ship off-loading operations in the absence of sufficient HNS.

Port Support Activity:

- Augments the port operators by moving the cargo and equipment from the docks to the cargo holding area, from which the deploying unit will draw.

Area Support Group:

- Provides life support to Army units stationed at or transiting through the SPOD.

Deploying units:

- Provides PSA to port operators.

SLRP:

- Conducts port and SPOD assessment.
- Establishes contact with local port authorities for port operations.
- Determines availability of HNS in terms of both labor and equipment.

Seaport operations are similar to airport operations in functions -- the vessel is off-loaded, the cargo moved to a holding area, and then the port cleared. Cargo clearing the port will be moved to the Theater Staging Base (TSB) or, in some instances, directly to the Tactical Assembly Area (TAA). Movement out of the port is controlled by movement control and must be integrated into the theater movement plan. Port clearance operations will involve the following transportation modes:

- Highway
- Rail
- Coastal and inland waterways

Logistics over-the-shore (LOTS) operations can be conducted where port facilities are insufficient or not available to support theater tonnage requirements. LOTS operations will be conducted IAW FM 55-60.

Rail Facilities

Rail facilities used as ports of debarkation follow the same pattern of use as sea and airports. The rail cars must be off-loaded, the cargo moved to a holding area, and the railhead cleared. In most rail operations the clearance of the facility is critical to efficient operations. The location of rail facilities in built up areas limits the space available for holding and access to the facility.

Rail operations are limited by the number of discharge docks available and by the container and materiel handling capability of the yard. An inability to off-load for any reason effectively shuts down the operation.

In OCONUS, the ASCC arranges for the use of rail assets through HNS or contract-based, based on the supported Combatant Commander's priorities. The ASCC plans and coordinates rail movement based on HN operating conditions. Factors that should be considered in planning rail operations are:

- Availability of existing infrastructure (routing lines, discharge and loading terminals, and marshaling yards).
- Political consideration such as local HN civilian dependence on rail support and estimated daily rail support.
- Manpower resources available (HNS, contracted resources, and Army force structure).
- State of repair of right-of-way and engineering capability to effect repairs.
- Vulnerability of the rail line.

After the movement of unit equipment by rail and unit personnel by passenger cars or another mode of transportation, a reception phase is required to reassemble unit personnel with its unit equipment. Therefore, just as Bosnia demonstrated, reception operations are required even during intra-theater rail movement.

Staging

Staging is that part of the RSO&I operation which:

- Reassembles and reunites units with their equipment and schedules their movement to the tactical assembly area (TAA)
- Uploads unit basic loads
- Provides life support to personnel

GENERAL

These activities occur at multiple sites in controlled areas called Theater Staging Bases (TSBs). TSBs are required because space limitations normally preclude reassembly of combat units at sea ports of debarkation. In general, there will be at least one TSB for each SPOD/APOD pairing. In Desert Storm battalion sized units averaged 9-17 days to stage and 20,000 soldiers were awaiting equipment when the ground war began.

The Impact of Staging on Force Closure

In order to meet the force closure requirements, time units spend staging through the TSB must be minimized. In Desert Storm, staging was extended by inefficiencies such as: personnel arriving before their equipment, equipment arriving before its personnel, and delays in matching troops with proper equipment. As a result, time required to reach force closure exceeded 200 days. Units were still staging through TSBs even after the ground campaign commenced. Now, the Army standard for force closure of a similar size force is only 75 days. To achieve this objective, a battalion-sized unit should spend no more than two days staging in the TSB.

Lines of Communications (LOC)

All routes, land, water, and air, which connect an operating military force with a base of operations and along which supplies and military forces move.

Joint Pub 1-02

TSBs should be located in areas convenient to both the SPOD and APOD, with good lines of communication back to ports of debarkation and forward to designated TAAs. In addition, the TSB should have sufficient space to accommodate the largest force scheduled to stage through it, together with facilities for vehicle marshaling, materiel handling, equipment maintenance and calibration, and possibly boresighting and test firing weapons. All of these are needed if the TSB is to fulfill its function of converting personnel and equipment into mission-ready units.

Other factors affecting selection of a TSB include geography and terrain (e.g., water supply may be a factor in desert operations, land space in urban setting); and availability of organic and host nation assets. These factors, together with the size of the deploying force, may often necessitate multiple TSBs. The requirement for multiple staging bases is most evident in the urban sprawl of Europe and Korea particularly around seaport facilities. In many cases it is tremendously difficult to find even one square mile of open terrain much less the total space requirement for a TSB.

The requirement for multiple theater staging bases, in turn, multiplies support requirements. Movement control and communication are especially important, due to the increased complexity of synchronization between the ports of debarkation and the theater staging bases, between the theater staging bases themselves, and between the theater staging bases and the tactical assembly areas.

Figure 16-6 is a schematic representation of how a theater may look with multiple reception ports and TSBs.

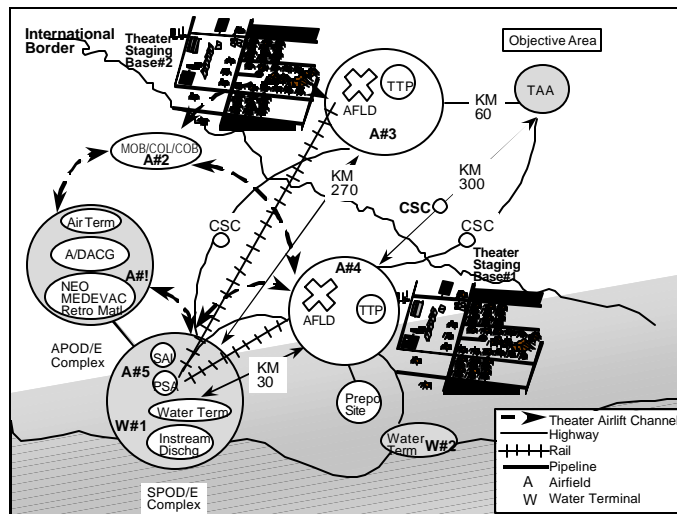


Figure 16-6. Theater with Multiple Reception Ports and TSBs

Force Tracking

The identification of units and their specific modes of transport during movement to an objective area.

Joint Pub 1-02

Force tracking provides situational awareness of combat-ready units within the AOR. While intransit visibility begins at home station, the process force tracking begins in the staging area, where equipment and personnel are reassembled into combat-ready units. Staging operations must have the communications, data processing equipment, and personnel assets to provide and manage force tracking data.

Efficient movement control can provide force tracking information. Movement control must be able to communicate directly with operational commanders. Alternatively, movement control can be maintained using the established chain of command.

In-Transit Visibility (ITV) acts as a staging enabler, by providing commanders with clear pictures of locations of units and materiel in RSO&I and deployment. For the TSB commander, ITV provides an awareness of the scheduled arrival of personnel and equipment, so the resources required to support them, as well as time required to assemble the unit in a mission-ready configuration, are available.

At present, there are a number of joint and multinational systems in various stages of development that provide visibility of force deployment and sustainment.

Unfortunately, present systems do not completely satisfy the requirements of force tracking.

Life Support

Regardless of time actually spent in the TSB, troops staging through it will require support, including housing, sustenance, sanitation and health care. RSO&I planners must ensure that these are in place, and functioning, by the time the first units arrive. This requires proper early sequencing of engineer, water purification, combat health support, and field kitchen units in the TPFDD. Even if this requires displacement of some combat capability, it pays dividends later in the operation in the form of higher throughput, faster incremental buildup of combat power, and earlier force closure. The Army's Force Provider modules, each designed to provide base camp support to 550 people, as well as the Air Forces Prime Beef and Prime Rib programs, are viable options for providing field services to transient and permanent parties.

Supply and Maintenance

Equipment arriving at the TSB may require maintenance before it becomes combat ready. This includes calibration of equipment, boresighting of weaponry, replacement of parts damaged in transit, painting, fueling, and loading. The TSB should provide adequate facilities to support these activities, including marshaling areas, maintenance shelters, fuel and ammunitions storage, a test driving loop, range areas, etc.

Preparation of Units for Onward Movement

In addition to preparing equipment, units at the TSB undergo training and reorganization. The unit commander re-establishes command and control over the unit. Communications networks are established and tracking systems allow senior commanders to monitor incremental buildup of combat power. Commanders must participate in planning the onward movement including route planning, unit tracking, and movement control.

Security

Theater staging bases are high-value targets, destruction or damage of which results in serious delays in force closure and disruption of the JFC's concept of operations. Units in the TSB are vulnerable to attack by enemy air, missile, and ground forces. Being immobile, and only partially combat ready, they possess limited capability for self defense. Moreover, with many troops and their equipment concentrated into a relatively compact area, there is great potential for massive casualties, which could result in serious strategic consequences; e.g., undermining public support for the military operation, loss of US prestige.

Conversion to Sustainment Operations

Theater distribution, as a sustainment operation, begins with arrival of the first two heavy divisions by surge sealift. Since sustainment stockpiles in APS-3 are limited to supplies needed to support the first 30 days of operations, establishment of sustainment operations may compete with RSO&I for port space, infrastructure, and materiel handling equipment. TSBs may be converted into distribution sites, after the onward movement of the last units. However, arrival of the two additional heavy divisions in the second wave of surge sealift, could delay this transition, unless the divisions stage through different ports of debarkation and use different TSBs. Whether it

is more advantageous to establish new TSBs, or to establish independent distribution sites, must be determined on a case-by-case basis.

Onward Movement

Onward movement is the process of moving units and accompanying materiel from reception facilities and staging areas to the tactical assembly areas (TAA) or other theater destinations; moving arriving non-unit personnel to gaining commands and moving sustainment materiel from reception facilities to distribution sites.

GENERAL

Personnel and equipment are reassembled as combat-ready units and must be moved to their tactical assembly areas (TAAs) based on the JFC's priorities. Onward movement is a joint/multinational effort using capabilities and organizational structures of other Services, Allies, Host Nation and other governmental entities. It is an iterative activity in which units advance from one LOC node to another. Onward movement occurs when units move from ports to theater staging bases or forward to the TAAs. There are three primary factors affecting onward movement:

- Movement Control
- Transportation Infrastructure
- Security and Enemy Interdiction

Movement Control

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

Joint Pub 4-0

Movement control is defined as planning, routing, scheduling, and control of personnel (units) and cargo over lines of communication, while maintaining in-transit visibility and force tracking. This is not a passive activity. Successful movement control requires continual analysis of requirements, capabilities, shortfalls, alternatives, and enhancements. Bottlenecks within the theater must be identified and possible interruptions to the flow minimized. One of the biggest challenges of movement control is rapidly adjusting to changes in battlefield conditions and the commander's priorities. The challenge of a theater movements program is to merge the JFC's concept of operations and priorities in a movement's plan and execute them. This challenge can be met by employing an adequate number of movement control resources to anticipate and improvise. Efficient movement control enables the commander to redirect forces and rapidly overcome disruptions in the LOC. Movement control is discussed in detail in Appendix C.

Transportation Infrastructure

The total transportation infrastructure -- modes, routes, control factors, host nation assistance, and specialized handling requirements -- must be coordinated to maximize speed of movement. Capabilities of the transportation network must be balanced against movement requirements, so that modes and routes are neither saturated nor underused.

In most cases, other Services and allied forces will use the same networks as Army units. Invariably, there will be areas of congestion, some of which cannot (or will not) be overcome. Planners should expect simultaneous demands on limited infrastructure, difficulties in communications, and differences in transportation capabilities.

During onward movement, mode selection (rail, HET, barge, etc.) is an operational issue, as it determines whether the commander of the unit in transit maintains control or whether control is lost and further staging required. Ideally, rail or heavy equipment transporters (HET) should transport tracked vehicles and wheeled vehicles should convoy.

Establishment of Convoy Support Centers (CSC) and Trailer Transfer Points (TTP) along MSRs and other support centers at temporary airfields, rail sites and waterway drop off points, further aids onward movement. These allow units and line haul drivers to rest, eat, perform vehicle maintenance, and contact unit/movement control personnel to receive updates in operational priorities and diversions.

Loading unit containers and other sustainment cargo on theater trailers for movement into corps and division areas is an efficient method of onward movement. There is, however, a twofold challenge: have material handling equipment (MHE) forward to download containers and getting the trailers back into the transportation system.

Improving Onward Movement

Enhancing speed and efficiency of onward movement requires development of three capabilities:

- Robust communications sufficient to allow ITV and communications with units in transit.
- Joint/Multinational procedures to ensure unity of effort and uninterrupted flow.
- Movement control to allow the most effective routes and modes.

Integration

Integration is the synchronized transfer of authority over units and forces to a designated component or functional commander for employment in the theater of operations.

During integration combat-ready units are merged into the operational plan. Consequently, integration planning and coordination must occur early in the force projection process, continuing until force closure. Integration is complete when the receiving commander establishes positive command and control over the arriving unit, usually in the tactical assembly area.

Integration Process

There are two prerequisites for unit integration:

- The unit must become operational and mission-ready. It must be able to move, fight and communicate at nominal levels of capability. Internal

command and control must be re-established, and the unit must meet the readiness standard formulated by the tactical commander.

- The unit must be absorbed into the joint force, be able to communicate, and receive command and control from its higher headquarters.

The time required for integration may vary, depending upon the size of the total force, contingency conditions, and amount of predeployment and ongoing planning and coordination. Rapid integration, however, is critical to the success of combat operations, and adequate planning and coordination can reduce integration time.

Accurate prediction of the time of unit integration is critical to the commander's ability to operate in accordance with the five basic tenets of Army operations. In order to accomplish this, the JFC and component staffs must be able to build a TPFDD that meets the commander's intent, usually expressed in the Combatant Commander's required date or required delivery date. Transportation feasibility is conducted throughout the military decision making process as a means of checking course of action feasibility. Once the TPFDD is executed, the JFC, through subordinate and its links to the ITV system, monitors the TPFDD. Changes are analyzed for their impact on integration of mission essential capabilities and the TPFDD revalidated by the JFC to adjust these changes.

Deployment operations are time sensitive; compressed planning timelines and furious activity are the norm. Commanders need timely, accurate information to execute or modify initial plans in response to rapidly changing operational and tactical conditions. Confusion inherent to deployment often results in conflicting guidance, frequent planning changes, and inefficient task execution, all of which delay the buildup of combat power and the force closure.

Control measures, such as liaison officers (LOs) or movement control teams can reduce confusion by coordinating between integrating units, RSO&I forces, and receiving headquarters. These measures act as guardians of the Commander's Intent and focus effort on force integration. These measures should be established immediately as part of the planning process and be maintained throughout the RSO&I process.

Force Closure

The objective of RSO&I operations is force closure, the point at which the JFC determines that adequate, combat-ready force is available to implement the concept of operations. Force closure requires well-defined criteria by which unit commanders can judge readiness.

Thus, RSO&I operations must also be particularly flexible regarding force closure. Commander may accelerate rates of force integration or change the sequence of unit integration.

Due to both limitations of strategic lift, and time delays inherent in intercontinental deployments, many decisions made at the beginning of the deployment process are practically irrevocable. Initial deployment plans should be flexible enough to ensure that unit integration is able to meet "real," as opposed to "planned" force closure requirements.

Improving Integration

Integration flexibility depends on three specific capabilities:

- Standardized procedures for transfer of authority.
- Standardized reporting
- Nonlinear decision support tools.

Automated Systems Supporting RSO&I

Several information management systems presently support RSO&I operations, among these are:

- Knowledge Based Logistics Planning Shell
- Joint Total Asset Visibility (JTAV)
- Global Transportation Network (GTN)
- Transportation Coordinator's Automated Information for Movement System II (TC-AIMS II)
- Automated Air load Planning System (AALPS) (will be included in TC-AIMS II)
- Global Command and Control System (GCCS)/ Global Command and Control System-Army (GCCS-A)
- Global Combat Support System
- Worldwide Port System (WPS)
- Integrated Booking System (IBS)

See Appendix D, Deployment Planning Tools, and Appendix C, Movement Control Operations, FM 100-17-3, *Reception, Staging, Onward Movement, and Integration* for a more detailed discussion of some of these information management systems and planning tools.

Chapter 16: Reception

Homework Assignment

Manuals required in completing homework: FM 63-4, FM 54-40, 100-16, and 100-17-3.

1. In the COMMZ _____ is responsible for receiving, equipping, and assisting deploying units to achieve and operational readiness posture.

Ref: FM 63-4, p 6-7

2. When fully operational, each reinforcing unit must submit a _____ through the Theater Army to the Host Nation.

Ref: FM 63-4, p6-8

3. List the four (4) principles that guide the development and execution of RSO&I:

a.

b.

c.

d.

4. When the ARFOR commander determines that deploying forces are fully operational, he should submit a _____ to _____.

Ref: FM 100-16, p4-24

5. Reception operations include _____, _____, and _____, _____, _____, and _____ into the CZ.

Ref: FM 100-16, p15-8

6. Who are responsible for planning reception operations for units arriving in theater?

Ref: FM 100-16, p15-8

7. _____ assumes operational command of all deploying US Army units as they arrive at the theater ports of debarkation.

Ref: FM 54-40, p4-7

8. The Theater Support Command may designate that an _____ operate at a port of debarkation during buildup of troops in theater.

Ref: FM 54-40, p4-7

9. The ASG would provide _____
_____ for follow-on units as they arrive in theater.

Ref: FM 54-40, p4-7

10. ASG elements may provide _____, _____
_____, _____, _____ support to
units on their way to tactical assembly areas.

Ref: FM 54-40, p4-7

11. The supported Combatant Commander has five sources available to provide RSO&I organizational infrastructure, the relative mix of which will vary according to the operation. Name the five sources:

- a.
- b.
- c.
- d.
- e.

FM 100-17-3, p 1-11

NOTES