

Chapter 4

Theater Distribution Operations

"At the various levels, the commander must depend upon a single, professional logistician to integrate and coordinate the overall logistics effort to assure effective and efficient support."

James A Houston
"The Sinews of War," Army Logistics, 1775-1953

An effective and efficient theater distribution system depends on the integrated efforts of the many elements of the distribution structure throughout all the stages of a force-projection operation.

SECTION I. - DISTRIBUTION STRUCTURE AND RESPONSIBILITIES

4-1. Organizations at all levels from combat brigades through US government agencies operate within the resource network of the distribution system. COMMZ distribution functions are intrinsically joint and may also be multinational.

4-2. The theater distribution system enables US forces to request, receive, sort, maintain, distribute, retrograde, and control the flow of resources among the points of reception, issue, or retrograde within the CSS pipeline. At the theater strategic level, the JFC is responsible for maintaining an effective distribution network consistent with each Service's intratheater policies and procedures. A wide range of options are available to meet a JFC's requirements. His choice depends on the type and size of theater and the strategic objectives. He may also direct subordinate Service components to manage and operate their own distribution systems. He may establish a logistics readiness center (LRC) and/or a series of joint boards and management centers. These joint activities establish policies and set priorities ensuring the flow of resources to support the joint/multinational campaign (see Appendix B).

4-3. The Army theater distribution system provides the ASCC/ARFOR commander the ability to command and control the reception, staging, and onward movement of all resources while maintaining TAV through communications and information systems. The ASCC/ARFOR commander normally establishes a TSC in the COMMZ to orchestrate the Army theater-level distribution system.

4-4. The TSC is the critical link between strategic agencies and commands (such as, USTRANSCOM, DLA, and AMC) and units performing Army distribution in theater. Each TSC, corps support command (COSCOM), and division support command (DISCOM) has a support operations section to coordinate battlefield functions directly associated with distribution. The plans and policy element of the support operations section focuses on operation plan (OPLAN)/operation order (OPORD) development. It coordinates with the DMC, functional commands/organizations or functional staff elements, and control centers for input to the CSS annexes of the documents. As explained later in this manual, the plans element of the DMC, with input from all functional commands/organizations, control centers, and other elements of the support operations section and DMC, develops the distribution plan. The operations element of the DMC coordinates with functional organizations/staff elements and control centers for situational awareness of current distribution operations.

4-5. Management functions at each echelon mirror each other (Figure 4-1). DMCs provide current information on location of mode assets and movement of critical supplies along main supply routes. They provide staff recommendations to direct, redirect, retrograde, and cross-level resources to meet distribution mission requirements.

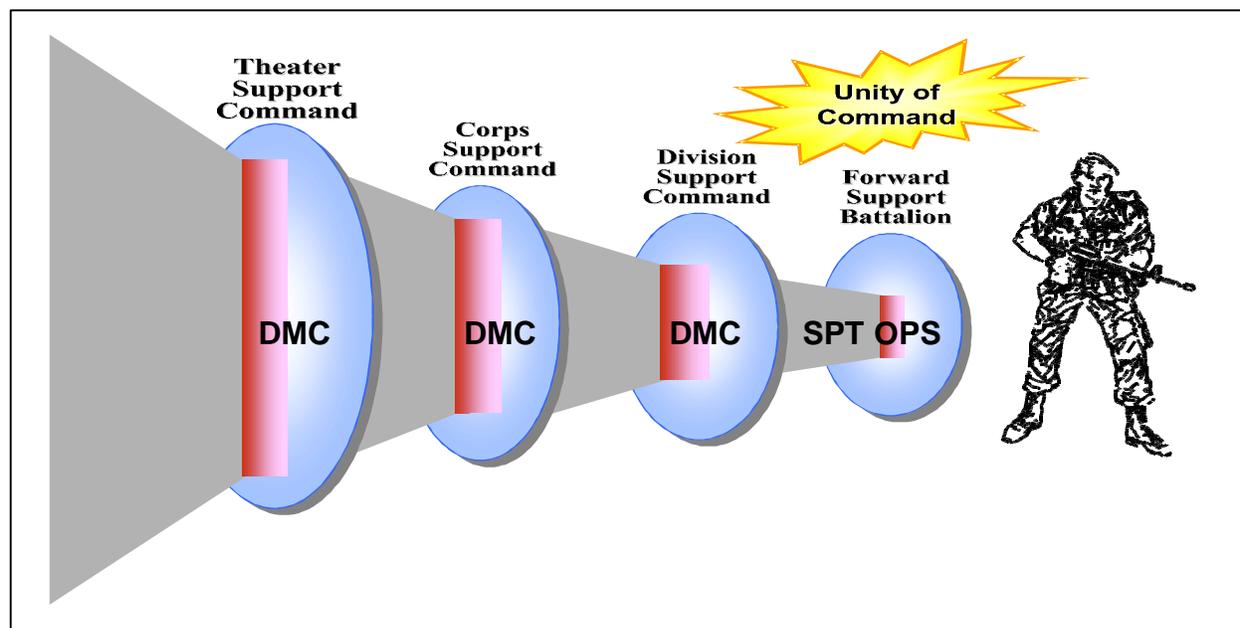


Figure 4-1. Distribution Management Echelons

4-6. The TSC is a versatile command structure. It employs EEMs and functional and follow-on C2 elements to provide support at the operational-level (see FM 63-4). TSC mission requirements may include supporting joint organizations and civilians; providing strategic, operational, and tactical interfaces; maintaining the distribution pipeline; and enhancing distribution

operations. A key TSC planning responsibility is developing, in coordination with the ASCC/ARFOR staff and functional commands, a distribution plan. The TSC updates the distribution plan as task organization changes.

4-7. At the direction of the ASCC/ARFOR commander, individuals and tailored elements from the Army strategic-level organizations may be attached to the TSC. They interface with various strategic support organizations and agencies. AMC logistics assistance office (LAO) elements who provide support to deploying units coordinate with the AMC LSE attached to the support command to facilitate the flow of information.

4-8. The support operations section of the TSC has primary responsibility for Army distribution management at theater-level. A DMC operates within the TSC support operations staff structure. The DMC, the functional commands/directorates, and control centers orchestrate the distribution of all classes of supply and services, and personnel movements supporting the deployed force. The DMC considers the impact of unit movement requirements on the distribution system. Other Services and DoD materiel managers work with these Army elements to perform joint distribution management for the deployed joint force as directed by the JFC (refer to Appendix B). The support operations section coordinates with materiel, personnel, movement, finance, engineer, and medical managers, and liaises with elements from other Services. The DMC provides current priorities for distribution/redistribution activities to the movement control agency (MCA) and materiel management center (MMC). Support operations section and DMC missions are discussed in FM 63-4.

4-9. Area support groups (ASGs) and functional commands/organizations serve as principal "distribution operators" in the COMMZ. An ASG is organized with the appropriate mix of functional CSS organizations necessary to perform its area support mission.

4-10. A materiel management team (MMT) from the TSC MMC and a movement control team (MCT) from the TSC MCA support an ASG. The ASG interfaces with other functional COMMZ organizations, such as personnel, finance, transportation, and petroleum groups, and medical, engineer, and military police brigades establishing an efficient distribution system.

4-11. Within the combat zone, the COSCOM provides support to corps units and other units, Services, or allies as directed. The COSCOM commander is the corps senior logistician and provides C2 for corps distribution operations. He performs his distribution responsibilities through the COSCOM support operations officer.

4-12. The COSCOM support operations section coordinates CSS battlefield functions directly associated with distribution. The CSS plans branch of the support operations section focuses on OPLAN/OPORD development. It coordinates with the DMC, functional staff branches in the support operations section, corps movement control battalion (CMCB), corps materiel management center (CMMC), and the medical logistics battalion for input into the support annexes of the documents. The distribution plans branch of the DMC coordinates with other elements of support operations, the MMC,

movement control personnel, and functional organizations to develop and maintain the distribution plan. It coordinates with the same elements as the plans branch in order to provide situational awareness of current distribution operations. FM 63-3 provides a detailed discussion on the COSCOM.

4-13. Corps support groups (CSGs) and functional medical, transportation, personnel, and finance groups/brigades make up the major corps-level distribution operators. CSGs may be designated as CSG (rear [R]) or CSG (forward [F]). The CSG(R) is organized with corps support battalions (CSBs), functional battalions, transportation units, and other functional units as required. The CSG(R) maintains corps stocks, less Class VIII. The CSG(R) may have an MMT from the CMMC and a MCT from the CMCB to assist in materiel and movement management. The CSG(R) commands or interfaces with other functional corps or COSCOM organizations, such as ordnance, transportation, quartermaster, and medical logistics battalions, to establish an efficient distribution system.

4-14. The CSG(F) is organized with multifunctional CSBs and provides DS to its assigned division and non-divisional units operating in the division and corps forward area. A distribution-based CSS system expands the focus of CSG(F) support to include greater emphasis on direct distribution to maneuver brigade areas. The CSG(F) may also have an MMT from the CMMC and a MCT from the CMCB to assist in materiel and movement management. For more discussion of CSG operations, refer to FM 54-30.

4-15. Depending upon the size of the corps, the senior medical organization within the corps may be a medical brigade or a medical group. Medical brigade/group staff officers establish CHS policies for the command. They coordinate plans, policies, and procedures for CHS operations in support of corps forces with the COSCOM support operations staff. The modular structure of the medical brigade/group CHS organization allows medical resource managers to rapidly tailor, augment, reinforce, and reconstitute CHS elements. The corps CHS organization is designed to acquire, receive, and sort casualties; provide emergency medical treatment; evacuate for further treatment; and distribute health service logistics.

4-16. If three or more functional transportation battalions are included in the corps force structure, a transportation group may be attached to the COSCOM. The transportation group headquarters from EAC force structure provides command, staff planning, and control of the operations of attached transportation battalions and truck units in support of a corps force. The transportation group focuses on providing corps-wide transportation support of tactical operations within the parameters of the established corps distribution system.

4-17. The corps also includes a personnel group and a finance group. As discussed in Appendix C, these organizations, along with the assistant chief of staff, personnel (G1) staff, coordinate with other distribution managers to effect distribution of such resources as personnel replacements, mail, and finance services. FM 12-6 discusses personnel support, and FM 14-100 covers financial management operations.

4-18. The DISCOM provides CSS to all organic and attached elements of the division, including supervision and management of information, materiel, and transportation. The division support operations section serves as the DISCOM staff element responsible for managing distribution within the division AO. The division support operations officer is the primary distribution manager for the division. A DMC is established within the division support operations section of the DISCOM. While the DISCOM DMC operates at a smaller scale than the TSC and COSCOM DMCs, the basic functions are essentially the same. The DISCOM DMC is the fusion center for distribution information. It leverages technology to provide the DISCOM commander and the rest of the staff with timely information. This section performs distribution management of all classes of supply, materiel, and services within the division. A unique consideration for the DISCOM DMC is that the division movement control and materiel management elements operate as parts of the same staff as the DMC; they are not separate commands as is the case at corps and echelons above corps (EAC). The DISCOM DMC focuses on the distribution pipeline as it extends into the division area. In addition, the DISCOM communicates priorities to materiel and movement control staff personnel and directs the establishment of the distribution flow within the division to include lateral redistribution and retrograde. As at the corps level, the DMC works with personnel and finance elements to coordinate distribution of those resources.

4-19. The main support battalion (MSB), aviation support battalion (ASB), forward support battalions (FSBs), and in the redesigned division the division support battalion provide division-level support to divisional units located within their areas of responsibility (AOR). The support operations section of these battalions performs the distribution management function for the supported units. The support operations officer workloads the subordinate companies based upon support requirements of the supported units. Support operations personnel maintain visibility of materiel flow.

SECTION II. - DISTRIBUTION IN FORCE PROJECTION OPERATIONS

4-20. Preparation of the Army theater distribution system begins before deployment. Predeployment activities are those actions commencing from the point of alert notification to the actual deployment of equipment, materiel, and personnel to an AO. During this period, the tactical commander's CSS concerns are with the final preparations of equipment and personnel for movement. Commander-in-chief (CINC) and ASCC/ARFOR commander concerns include improving the readiness of the deploying force and ensuring that the appropriate support structure is deployed to support the force. The ability to simultaneously conduct both missions, prepare the force and deploy the force, mandates an agile and adaptable distribution system.

4-21. The actual mobilization and deployment of forces from CONUS/OCONUS power projection platforms based upon JFC requirements are primary responsibilities of national strategic-level CSS elements of the distribution system. As the time-phased force deployment data (TPFDD) is developed, coordination is made between the JFC and USTRANSCOM. Coordination includes allocating transportation assets to the ports of embarkation (POEs) and load planning/uploading of personnel, equipment, and initial sustainment stocks (ammunition basic loads [ABLs], unit basic

loads [UBLs], combat prescribed loads, combat authorized stockage lists [ASLs], and/or operational loads).

4-22. Strategic-level supply and personnel organizations provide timely responses to deploying unit requisitions for personnel, supplies, and materiel to bring unit readiness up to requirements. This includes canceling or modifying open requisitions. Supply sources unitize cargo in single consignee packages and apply automated manifest systems (AMS) and radio frequency (RF) tagging to maximize throughput and prevent unnecessary opening of containers as they flow through the distribution system. GSA, DLA, and AMC update unit "ship to" addresses in the DoD Activity Address File (DODAAF), including creating new break-bulk point DoD Activity Address Codes (DODAACs). This is critical for tailored units and units employing split-base or modular operations.

4-23. USTRANSCOM provides transportation control at aerial ports of embarkation (APOEs) and seaports of embarkation (SPOEs). Departure airfield control groups (DACGs) and port support activities (PSAs), provided by units and installations in conjunction with the Air Mobility Command and MTMC, process forces and materiel, and aid in loading strategic lift. Proper bar-coding, AIT, container documentation, and cargo manifests are prepared to expedite reception in the AO.

4-24. The AMC, force providers (US Army Forces Command [FORSCOM], US Army, Europe [USAREUR], and US Army, Pacific [USARPAC]), and USTRANSCOM maintain transportation control number (TCN)/unit line number (ULN) ITV over resources flowing from power projection platforms to the theater ports of debarkation (PODs) and provide TAV information exchange with the theater distribution system.

4-25. During predeployment, the support operations staff of the designated TSC, in conjunction with the ASCC/ARFOR and JFC staffs, refines the plan for the LPT (see Chapter 5). The LPT plan, developed in coordination with the intelligence preparation of the battlefield (IPB), is essential to the overall development of a comprehensive distribution plan and the configuration and sequencing of CSS forces in the TPFDD. A significant element in this process is the accurate identification and timely sequencing of the mix of CSS functional modules of the TFOP.

4-26. Described in greater detail in Appendix A of this manual and in FM 63-4, the TFOP is a modularly configured, theater-level, early entry support task force. It is tailored, based upon LPT and distribution plan requirements, to provide the critical Army force capability required to open and initially operate the Army theater distribution system. Figure 4-2 depicts the functional mission profile of the TFOP. EEMs of the TSC headquarters, TSC MMC, and TSC MCA, and forward deploying modules from functional commands, AMC, DLA, and USTRANSCOM provide split-base C2 and distribution management. Functionally oriented theater force opening modules (TFOMs) open and operate the initial distribution system.

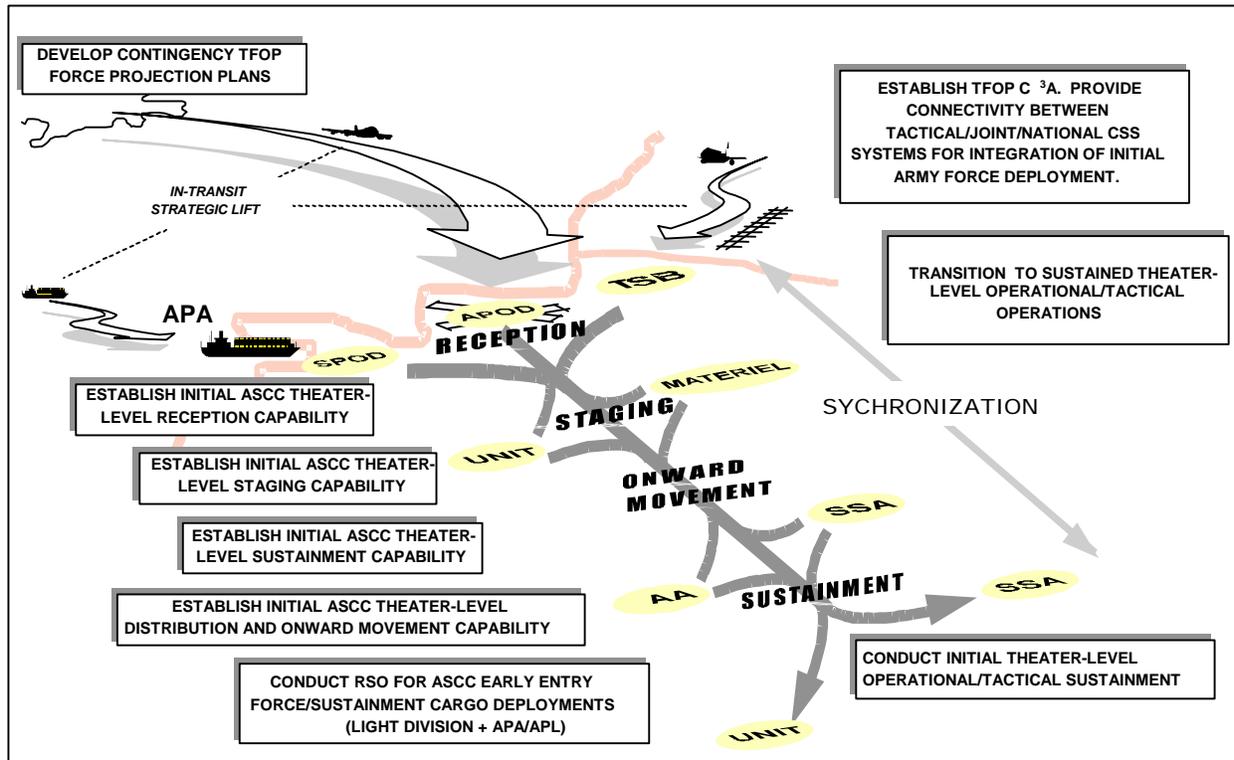


Figure 4-2. Theater Force Opening Package Functional Mission Profile

4-27. Early deployment of the TFOP is essential to the continuous and seamless flow of the CSS pipeline into and within the theater. Without the theater-opening capabilities provided by the TFOP, the ASCC/ARFOR commander does not have the resources required to augment the capacity of the theater infrastructure or the critical visibility and control to manage the Army theater distribution system.

OPENING THE THEATER

4-28. Upon arrival in the theater, the TSC MCA, TSC MMC, and TSC support operations, and functional command EEMs of the TFOP establish communications and automation links with joint and strategic level C2/CSS information systems to acquire visibility of the CSS pipeline. As a minimum, communications and automation connectivity is established with USTRANSCOM for visibility of strategic air flow and ship schedules and with AMC and USAMMA for visibility of APS.

4-29. In accordance with (IAW) the joint force guidance and theater contracting policy, the TFOP assesses and acquires available HN infrastructure capabilities identified in the LPT plan and updates the distribution plan. This includes directing the execution of required LOGCAP contracts by the AMC LSE module of the TFOP; activating HNS infrastructure agreements; and establishing initial HN contracts for supplies and services under the coordination of the principal assistant responsible for

contracting (PARC) to support the theater-level distribution plan. Utilizing acquired HN infrastructure and functional TFOM capability, the TFOP then "stands up" the nodes and arcs of the theater distribution network IAW the distribution plan and establishes initial ASCC/ARFOR theater reception, staging, onward movement, and sustainment capabilities.

4-30. In a theater distribution system all resources are throughput from the POD to the unit whenever possible. The distribution hub is the center of gravity for support at each echelon of support. The hub is the complex of capabilities at each echelon designed to enable throughput. It includes all the functional capabilities tied to distribution at the echelon. The support operations section of the associated support command/battalion is responsible for synchronizing those capabilities.

4-31. Within a hub are one or more distribution terminals for cargo. A distribution terminal (DT) segregates, consolidates, manifests, and stages cargo for delivery to customers over established routes according to a time definite delivery schedule. The distribution terminal uses cross-dock efficiencies to segregate and ship cargo to satellite SSAs and other nodes in the distribution system. The distribution terminal consists of a transportation cargo transfer element and a servicing MCT. Multi-consignee and frustrated cargo goes to the distribution terminal of the hub to be broken down into single consignee shipments and moved forward on a time definite delivery basis. Distribution terminals receive, sort, and unload containers for rapid distribution. These distribution terminals are transshipment points focused on receiving, sorting, documenting, and shipping cargo. They also redirect cargo as required. They are connected with SSAs and other nodes of the system to form the hub. DT operations include –

- Segregating, consolidating, manifesting, staging, and delivering cargo to customers over established routes according to a time definite delivery schedule.
- Preparing AMS cards and RF tags for cargo to ensure TAV/ITV from distribution terminal (DT) to the ultimate consignee.
- Receiving, repackaging, redistributing, and retrograding cargo.
- Coordinating mode asset, pallet, and container arrival and departure, and providing timely cargo ITV reports to CSS databases.
- Reading source data automation of cargo arriving and departing the DT.
- Staging and marshaling trailer loads for delivery.

4-32. Transition nodes are a critical part of the distribution system, and any changes to shipping information must be provided to distribution managers to ensure asset visibility is maintained. Distribution managers also manage the throughput capabilities of the hub by synchronizing the activities of mode operators with the flow and break-bulk capability of the distribution terminal.

4-33. Early in deployment, a TFOP movements control module, in conjunction with Air Mobility Command forward elements, opens a common-user APOD reception area. If the theater is supported by a sea line of communication (SLOC), MTMC is the seaport manager under the single port manager (SPM) concept for all common-user SPODs. The geographic JFC has several options available for the port operator, including use of a deployable transportation

group or MTMC, under a command arrangements agreement (CAA), using stevedoring contracts or host nation support.

4-34. Early in a force projection operation, supported JFCs regulate the transportation flow by ensuring that adequate support and reception assets, effectively coordinated through a theater reception plan, are either available at the POD or deployed early in the movement schedule to facilitate theater distribution and reception, staging, onward movement and integration (RSO&I). This will expedite the reception of personnel and materiel in the operational area. During force projection operations under hostile conditions, soldiers may have to perform many of the port functions. Once hostilities subside or cease, these types of activities may transition to MTMC-administered contract operations.

4-35. Terminal operations, line-haul, heavy equipment transport (HET), and movement control assets to provide surge sealift SPOD reception capability become available upon arrival of APA. Other terminal operations, mode operator, and movement control resources may establish inland rail and/or water terminals to support reception of resources flowing into the theater via land LOC.

4-36. Terminal operations, line haul and HET, supply, maintenance, and other required functional capabilities, along with TSC headquarters, MCA, and MMC EEMs establish the initial theater hub, including the distribution terminal. The TSC support operations element provides theater-level priorities to the distribution terminal for the TSC commander. The DT facilitates the time definite delivery of resources flowing through the theater end of the CSS pipeline. To enhance throughput and a continuous flow, the DT is centrally located. It is close to theater reception nodes and located to facilitate main supply route (MSR) routing established in the distribution plan.

4-37. Based upon strategic lift constraints and the need to minimize its overall footprint in the theater, the TFOP may rely heavily upon a combination of HNS and contracts to provide the onward movement of resources within the theater. All available modes of transportation are used in the distribution process. They include rail, motor transport, watercraft, intratheater air, and airdrop. Movement control TFOMs provide movement control capability under the direction of the TSC MCA. Organizations performing highway regulation functions emplace RF interrogators to maintain the ITV of resources moving to staging areas and unit AAs.

4-38. Force Provider modules and engineer forces, and/or contractors may establish staging areas, and supply TFOMs establish commodity-oriented SSAs for the staging of sustainment stocks. Consistent with the distribution plan, AMC and USAMMA transfer APS afloat/land to theater SSAs. The TFOP also employs a combination of HNS, contracts, and functional CSS TFOMs to establish the theater support base necessary to maintain the distribution system infrastructure and sustain distribution operations.

SUSTAINING THE THEATER

4-39. Even as the TFOP stands up the Army distribution system, the distribution pipeline flow of force projection resources begins to arrive at theater reception

nodes. At this point, the distribution system focus begins to shift from theater opening to theater sustainment. As depicted in Figure 4-3, theater sustainment is an interactive combination of force generation and force sustainment.

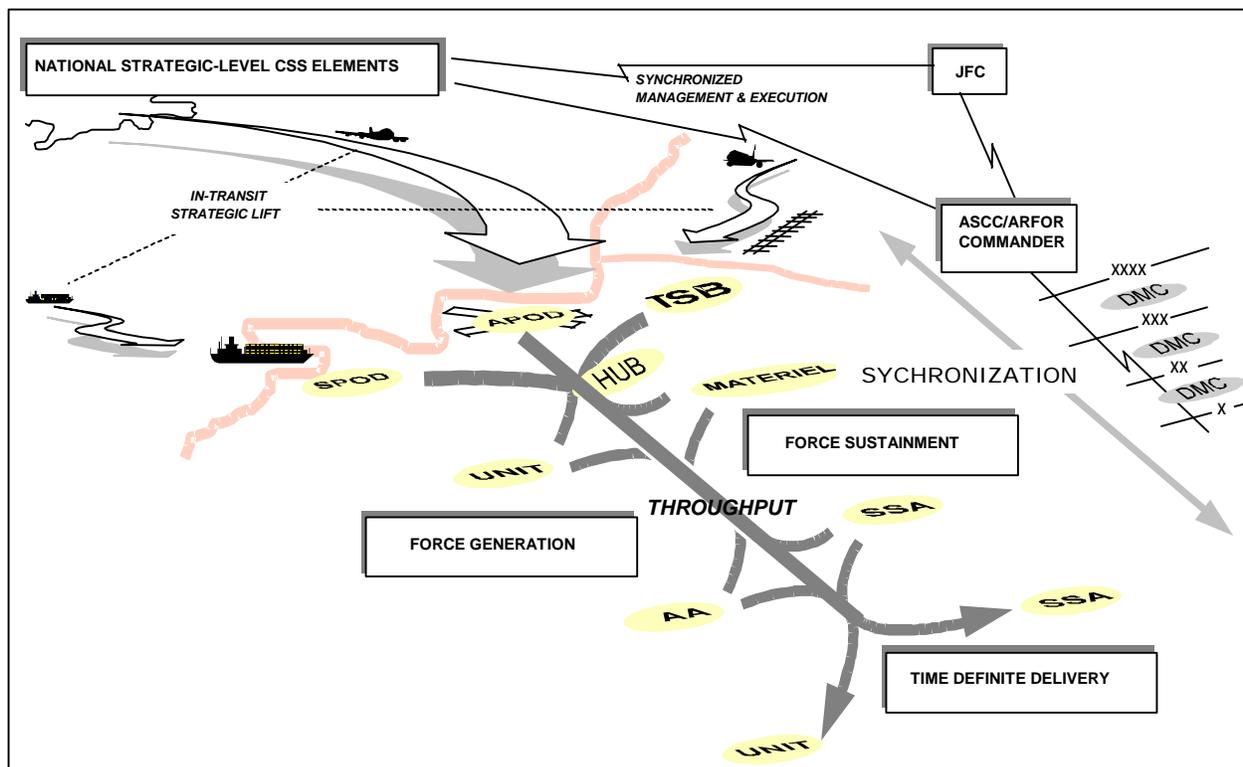


Figure 4-3. Theater Sustainment

4-40. Force generation includes all actions required within the distribution system to assemble deploying elements (personnel, equipment, unit cargo, and materiel stocks) into an operationally capable force. Units and their unit equipment flow from CONUS/OCONUS power projection platforms under separate ULNs to arrive in the theater by the JFC's required delivery date. Terminal operators, mode operators, and movement control personnel at theater reception nodes provide the initial visibility and movement of unit personnel, equipment, and supplies as they enter the theater. The TSC MCA coordinates development of the port clearance plan with the ASCC/ARFOR G3 and the TSC support operations element. HNS, contract, and TFOP cargo transfer elements may provide offloading and discharge operations at common-user APODs under the management of the Air Mobility Command. PSA elements assist in vessel discharge operations and staging at common-user SPODs while under the operational control (OPCON) of the port operator. HNS or stevedoring services contracts may augment discharge operations under control of the port manager through MTMC-administered contract operations. Unit personnel and cargo then flow through staging areas to tactical assembly areas (TAAs) where they are handed over to the ASCC/ARFOR commander and integrated into the theater force. FM 100-17-3 provides details concerning RSO&I and force generation.

4-41. As the theater develops, distribution system efforts shift to force sustainment. Functional command modules/directorates and the TSC DMC monitor force sustainment requirements and the developing capacity of the distribution infrastructure under the distribution plan. Corps and division CSS resources, integrated into the theater force through force generation, establish distribution management capabilities at their respective echelons. Additional DTs may be added to the distribution system at these echelons, reducing the workload of the theater-level DT and further enhancing the flow of resources in the theater. The TFOP matures to a fully capable TSC and other required commands operating under the ASCC/ARFOR commander.

4-42. Sustainment resources flow from national strategic-level CSS elements or local sources IAW support plans as modified by the TFOP support operations EEM. Whenever possible, strategic-level supply sources unitize cargo into single consignee packages consistent with the distribution plan and apply AMS and RF tagging to maximize throughput. They group this cargo together and palletize or containerize it for movement on strategic transportation assets. Shipment on strategic lift assets is based on maximum cargo-carrying capability of the assets. Resources flow through theater APODs and SPODs and are throughput directly to a unit's supporting supply support activity (SSA), stock locations, or to DTs for further action. Sustainment materiel designated for stockage normally bypasses the DT and is throughput to storage sites. Information is processed into the logistics information systems by the receiving SSA. Trailer transfer points (TTPs) may be used along MSR/alternate supply routes (ASRs) or at DTs to facilitate continuous flow to SSAs. The DMC must maximize the utilization of intercoastal sealift, rail, and air capability to offset the effects of MSR/ASR destruction/interdiction. Sustainment materiel packaged for a single consignee is received, processed, and throughput directly to an SSA. Sustainment materiel packaged for multiple customers is separated at DTs, segregated by SSA and DODAAC, reconfigured, and then shipped to the appropriate SSA.

4-43. Air lines of communication (ALOC) continue to serve as the preferred means of emergency and critical materiel delivery to and within the theater. Delivery assets for personnel replacements and unit moves are coordinated by the personnel liaison element from the PERSCOM's theater personnel management center to the TSC DMC.

4-44. The movement of retrograde, to include maintenance evacuation of materiel, through the distribution system is accomplished in reverse order of sustainment from the tactical through strategic level. Retrograde equipment and materiel is consolidated at the lowest level SSA and reported through the support operations channels to the TSC MMC commodity manager for distribution instructions using source data automation devices. The SSA packages, documents with AMS cards, and RF tags retrograde items for shipment based upon distribution instructions received from the TSC MMC. Transportation requirements for retrograde are synchronized with onward movement/sustainment transportation requirements within the TSC DMC to maximize utilization of transportation platforms. It coordinates retrograde of unit equipment, personnel, and supplies with the MCA, MMC, and other functional organizations/directorates as required.

REDEPLOYING THE FORCE

4-45. Redeployment is the process of relocating deployed forces from a theater of operations to a new theater of operations for employment, or returning to their home or demobilization stations. It must be planned and executed in a way that facilitates the use of redeploying forces and sustainment equipment and supplies to meet new crises. Therefore, it is not just a retrograde operation. It is, in fact, a new deployment under which the theater of operations becomes a projection platform. The same operational phases, planning, and coordination actions required for deployment are also required for redeployment (see FM 100-17-5 for details covering redeployment).

4-46. During redeployment, the theater distribution system reception, staging, and onward movement orientation must shift from a forward to a rearward flow of resources. Based on JFC priorities, and in coordination with the ASCC/ARFOR and joint force logistics directorate (J4) staffs, the TSC support operations staff makes required modifications to the distribution plan to synchronize the assembling, reconstitution, and movement of resources to theater APOEs and SPOEs.

4-47. The TSC support operations section typically controls redeployment operations from AAs through redeployment assembly areas (RAAs) to APOEs/SPOEs. The TSC MCA couples unit movement requirements with USTRANSCOM strategic lift assets. The TSC support operations functional directorates and DMC work with the functional commands to coordinate and monitor medical, personnel, field services, maintenance, customs, and in some cases engineer support at AAs, RAAs, and APOEs/SPOEs. The TSC MMC ensures sustainment materiel, as well as adequate blocking, bracing, packaging, and tie-down materials, are available to expedite the flow of units departing the theater.