

Chapter 4

Staging

In order to make assured conquests it is necessary always to proceed within the rules: to advance, to establish yourself solidly, to advance and establish yourself again, and always prepared to have within reach of your Army resources and your requirements.

Frederick the Great
Instructions for His Generals, 1747

Staging is 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; providing life support for the personnel until the unit becomes self-sustaining.

GENERAL

4-1. Staging is that part of the RSO&I operation which:

- Reassembles and reunites units with their equipment and schedules their movement to the TAA.
- Uploads unit basic loads.
- Provides life support to personnel.

4-2. These activities occur at multiple sites in controlled areas called TSBs. TSBs are required because space limitations normally preclude reassembly of combat units at seaports 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 (see Figure 4-1, page 4-2).

THE IMPACT OF STAGING ON FORCE CLOSURE

4-3. 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.

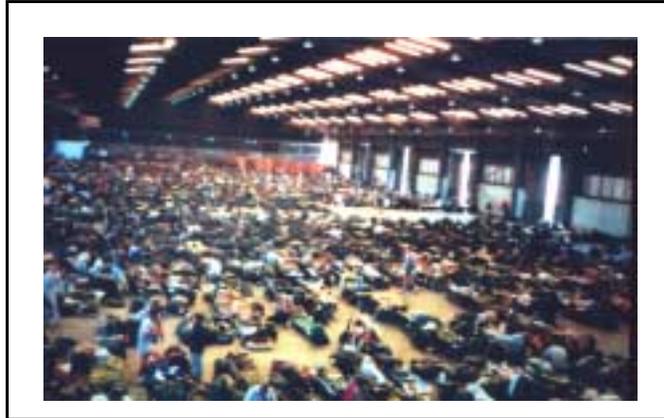


Figure 4-1. Desert Storm Staging

Lines of Communications

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.

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4-4. 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 combat units.

CONUS and USAREUR units were deployed to Taszar, staged, and either loaded on railcars or prepared for onward movement for a 12-hour convoy to Staging Area Harmon. At the height of the operation, the main staging base covered an area of some 35 square kilometers, and was processing 200 containers per day.

Operation Joint Endeavor
Draft Lessons Learned

4-5. Other factors affecting selection of a TSB include geography and terrain (for example, 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. Appendix M describes unit staging requirements.

4-6. 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.

The Army Prepositioned Stocks Afloat equipment (APS-3), which supports a 2x2 heavy brigade, requires 47 acres of staging area for its cyclic maintenance, as well as two million square feet of storage on ships.

4-7. Figure 4-2 is a schematic representation of how a theater may look with multiple reception ports and TSBs.

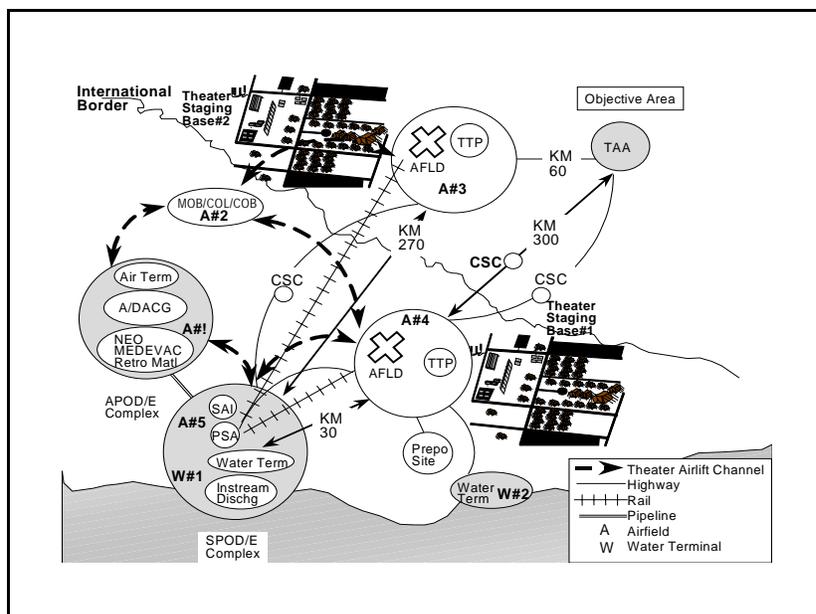


Figure 4-2. Theater with Multiple Reception Ports and TSBs

TPFDD CONSIDERATIONS

4-8. 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.

4-9. 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.

4-10. Notwithstanding the duration of a unit's stay in the staging area, support remains a necessity. Units and supplies required to support the troops and equipment in the staging area must be sequenced early in the TPFDD flow. The commander must ensure availability of rations, billeting, showers, toilets, medical care, and so forth, in addition to materiel handling equipment.

4-11. METT-TC considerations may effect the location of TSBs. In Desert Storm the original TSB was augmented with another TSB much farther forward. Soldiers were flown to the forward TSB, while theater assets transported their equipment from the seaport to the forward TSB.

4-12. Early deployment of essential support units may reduce the number of early-entry combat units in-theater, but pays dividends later by speeding the flow of the entire force, enhancing the JFC's operational flexibility. Conversely, front loading the TPFDD with combat forces may hurt the JFC's ability to build up forces as rapidly as required and thus reduce flexibility.

TSB FUNCTIONS

4-13. The key to success in staging is understanding the role of the TSB in the RSO&I process, and of functions performed at the TSB to support force closure.

COMMUNICATION

4-14. Reliable and compatible communications are essential to operations in the theater staging base(s). The JFC must know when forces are combat capable and prepared for onward movement, and have the capability to control and employ these forces at the decisive point and time.

4-15. The theater staging base must be able to communicate with ports of debarkation. Without two-way communication, managing staging activities becomes impossible. The staging base must know what is arriving, and when it will arrive. Synchronization between the theater staging bases and ports enables the efficient flow and reassembly of troops and equipment, as well as for the management of life support.

COMMAND AND CONTROL

4-16. Unity of command and a clearly understood chain of command reduce confusion, duplication, and delay. Two command structures normally operate at the TSB:

- Command and control of forces operating the TSB; and
- The chain of command for combat units forming in the staging base.

FORCE TRACKING

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

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4-17. Force tracking provides situational awareness of combat-ready units within the AOR. While in transit 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.

4-18. 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.

4-19. 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.

4-20. 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

4-21. 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.

ARMING, FUELING, AND FIXING

4-22. 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. Figure 4-3, below, shows the layout of a notional theater staging base.

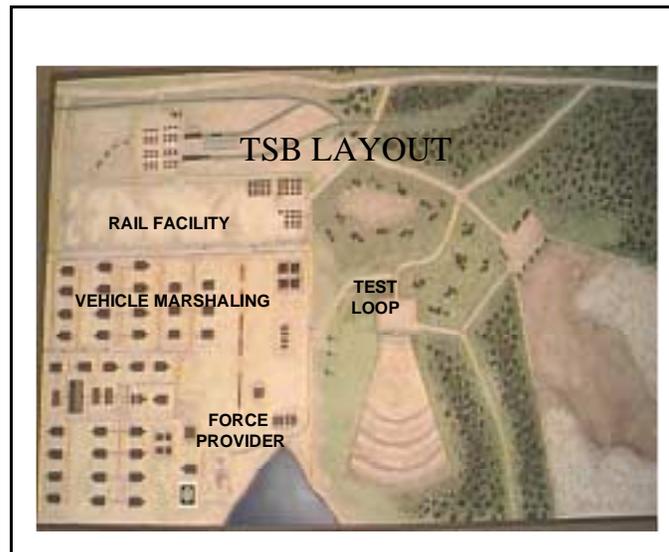


Figure 4-3. TSB Layout

PREPARATION OF UNITS FOR ONWARD MOVEMENT

4-23. 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

4-24. 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; for example, undermining public support for the military operation, and loss of US prestige.

CONVERSION TO SUSTAINMENT OPERATIONS

4-25. 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.