

CHAPTER 7

Force Projection

Force projection is the demonstrated ability of military forces to rapidly alert, mobilize, deploy, and operate anywhere in the world. Force-projection operations frequently are in response to politically sensitive situations that require the rapid projection and employment of military forces in support of national policy. These operations are normally undertaken in crisis-avoidance or crisis-management situations that require versatile, easily tailorable forces to accomplish a wide range of military operations under all environmental conditions with little or no advance warning. Because of their unique characteristics, the airborne, air assault, and light infantry divisions are ideally qualified to conduct force-projection operations.

Crisis situations are not restricted to peacetime engagement or hostilities short of war. Force-projection operations may be conducted across the continuum of military operations. This chapter focuses on engineer support to warfighting operations. *FM 5-114* gives details on engineer planning and considerations for other types of operations. *FM 100-5* contains the fundamental doctrine for Army force-projection operations.

A force-projection operation may be conducted under conditions ranging from mature AOs with an established infrastructure to

immature areas with an austere infrastructure and no forward-deployed forces or supplies. While the organization of an Army corps provides the necessary resources to plan and execute force-projection operations, a brigade HQ serves as the base for each assault force and is complemented with appropriate combat, CS, and CSS units. In most force-projection operations, a corps conducts deliberate, crisis action, and integrated planning as part of a joint or combined force. The corps's ability to quickly prepare initial forces and concurrently deploy and employ overwhelming combat power into an austere environment under a variety of conditions is essential to the execution of force-projection operations. Additional engineer forces that the corps provides to the division and its brigades are critical in providing the requisite level of engineer support for the operation.

Because of their ability to deploy rapidly and their versatility, the airborne, air assault, or light infantry division frequently forms the nucleus of the Army force deployed for force-projection operations. These divisions can be deployed as an organized force or as a tailored force mix from each of the three, with forces from the Army's heavy divisions introduced later into the contingency area.

CHARACTERISTICS AND TYPES

Since force-projection operations are rapid-response actions that are designed to bring an early resolution to a crisis, they normally have one or more of the following characteristics as they develop:

- US interests at stake.
- Quick response/early resolution.
- Timely, detailed intelligence of the objective area.
- Rapid projection of CONUS-based combat power.
- Constrained sea lift and airlift.
- Joint and combined operations.
- Precise C2 during initial stages.
- Diverse operational options.

Some types of force-projection operations in which light engineers are involved are violent while others are benign. Peacetime operations are conducted according to the basic combat doctrine described in this manual and *FM 100-23*. Peacetime operations are modified to conform to the special METT-T requirements of force-projection

operations. Engineer involvement in a force-projection operation may include the following OOTW missions:

- Disaster relief and humanitarian assistance.
- Nation assistance.
- Arms control.
- Noncombatant evacuation operations.
- Show of force and demonstration.
- Rescue-and-recovery operations.
- Strikes and raids.
- Operations to restore order.
- Peacekeeping operations.
- Counterdrug operations.
- Security assistance surges.
- Combating terrorism.
- Support to domestic civil authorities.
- Support to an insurgency or counter-insurgency.

PLANNING AND EMPLOYMENT CONSIDERATIONS

During mission planning for force-projection operations, the principal goals of the brigade engineer and the company commander are to—

- Maximize the combat capability of their supported brigade.
- Reduce support requirements to mission essentials.

While METT-T is the overriding factor in determining the exact mix of engineer forces

in the brigade, the influence of these two goals on planning is extremely important and must not be overlooked. Force-projection operations are characterized by uncertain and rapidly changing situations, coupled with the unknown duration of the operation. The engineer plan must support the maneuver commander in overcoming these situations while also allowing him to adapt and remain proactive during the entire operation.

OPERATION STAGES

There are usually eight stages to Army force-projection operations. They are—

- Mobilization operations.
- Predeployment operations.

- Deployment operations.
- Entry operations.
- Combat operations.
- War termination and postconflict operations.
- Redeployment and reconstitution operations.
- Demobilization operations.

These stages provide a general structure for force-projection operations and can be modified to account for changes. Engineer planners must be aware of these changes, usually initiated at division level, and understand their impact on engineer support to the brigade. Execution of these stages may not be distinct. Decisive combat operations might begin well before the entire force closes in the force-projection operational area. Some force-projection operations may not include all the stages. A force-projection operation may also escalate into a mid-intensity conflict or a high-intensity conflict environment, much in the way that Operation Desert Shield evolved into Operation Desert Storm; or it may transition into a peacetime engagement operation, such as Operation Golden Pheasant. The following text focuses on force-projection operations that involve combat operations. Mobilization and demobilization operations are not discussed.

PREDEPLOYMENT OPERATIONS

This is the most critical stage of a force-projection operation (see *Figure 7-1, page 7-4*). The principal goal of brigade planners is to—

- Anticipate the military conditions necessary for success.
- Achieve those conditions through a sequence of activities.

Establish the timely sequencing and introduction of resources into the AO.

Achievement of this goal is essential to successfully execute subsequent stages of force-projection operations. All available employment options will be addressed, resolved, and then selected. The selection of the preferred option or combination of options during the military decision-making process is based on mission guidance, METT-T, and the following planning considerations:

- Level of expected violence.
- Duration of the operation.
- Force tailoring to fit available sealift/airlift.
- Maneuver.
- Fire support.
- Task organization.
- Intelligence.
- Logistics.
- Communications.
- C2.
- Special operations forces (SOF).
- Public affairs.
- OPSEC and deception.
- ROE.
- Risk assessment.

Maneuver Considerations

At division level and lower, units and personnel are alerted. According to established readiness procedures, soldiers are recalled, assembled, and moved to the marshaling areas where unit preparation begins. This includes mission analysis, tactical plan development, and task organization

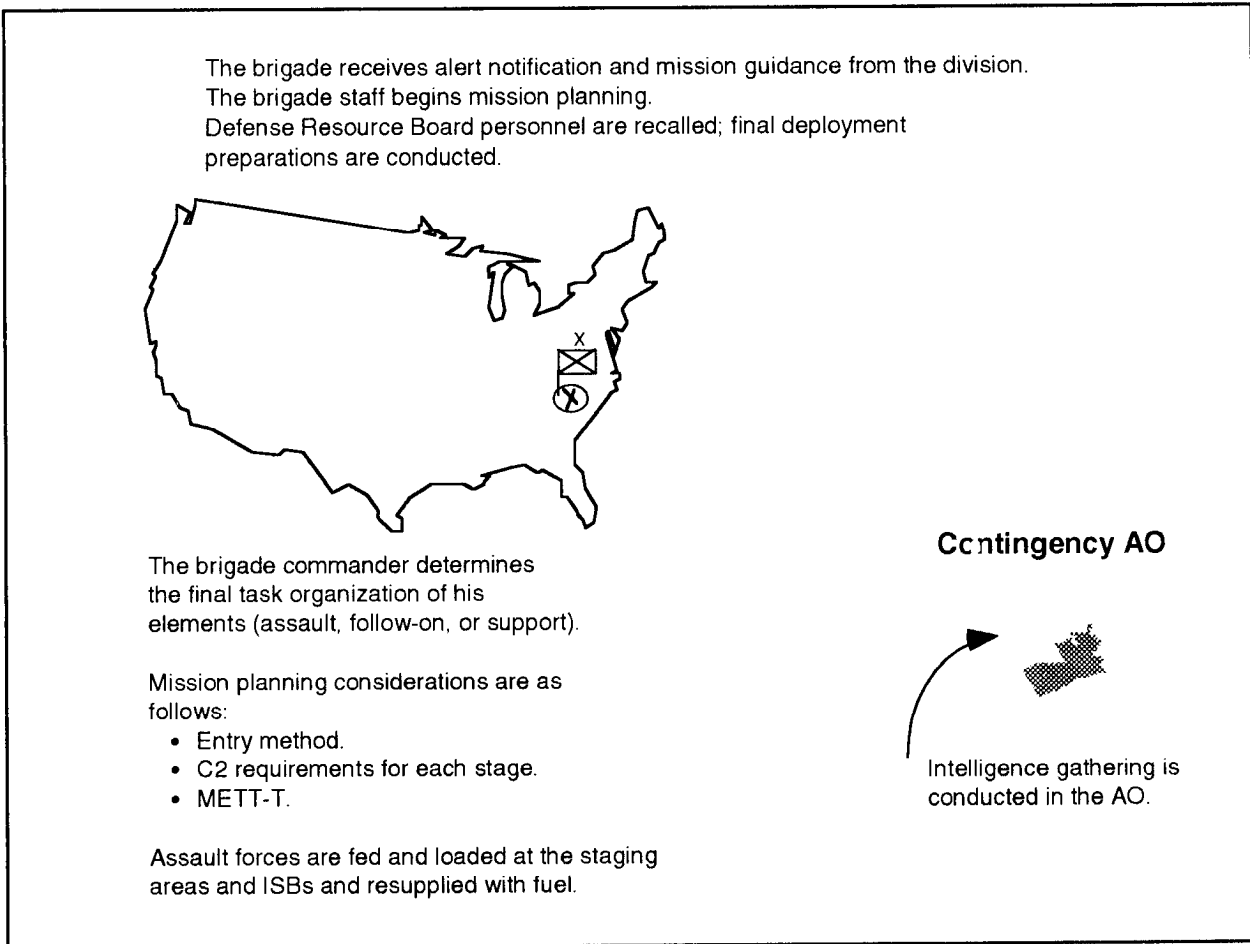


Figure 7-1. Maneuver-force predeployment operations

required to accomplish the mission at all levels.

Force-projection operations require that the force is tailored to the specific mission and then echeloned to permit simultaneous deployment and employment. Usually, a combined arms force is organized into the following three echelons:

- Assault.
- Follow-on.
- Support.

The initial assault element must be organized with sufficient combat power to seize

the lodgment area and begin military operations. The follow-on element must be equipped to expand the lodgment area and conduct decisive military operations. The support element must provide sustainment for extended operations. C2 must be phased into the operation early. In every element, combat forces must integrate with all BOSs. The force must rapidly establish a lodgment, take the fight to the enemy, and win the battle.

Brigade Engineer Functions

As a member of the deploying maneuver brigade staff, the brigade engineer is

incorporated into the brigade's mission analysis as outlined in *Chapter 2*. The brigade engineer must identify and analyze all engineer missions and force requirements throughout each stage of the force-projection operation in order to support the maneuver commander's intent (see *Figure 7-2*). He must consider and review the five engineer battlefield functions:

- Mobility.
- Countermobility.

- Survivability.
- General engineering.
- Topographic engineering.

The brigade engineer and staff develop and recommend an engineer task organization for deployment, entry operations, and initial operations in the AO during predeployment activities. The task organization of engineer units is initially established for the brigade by the division (with input by the division

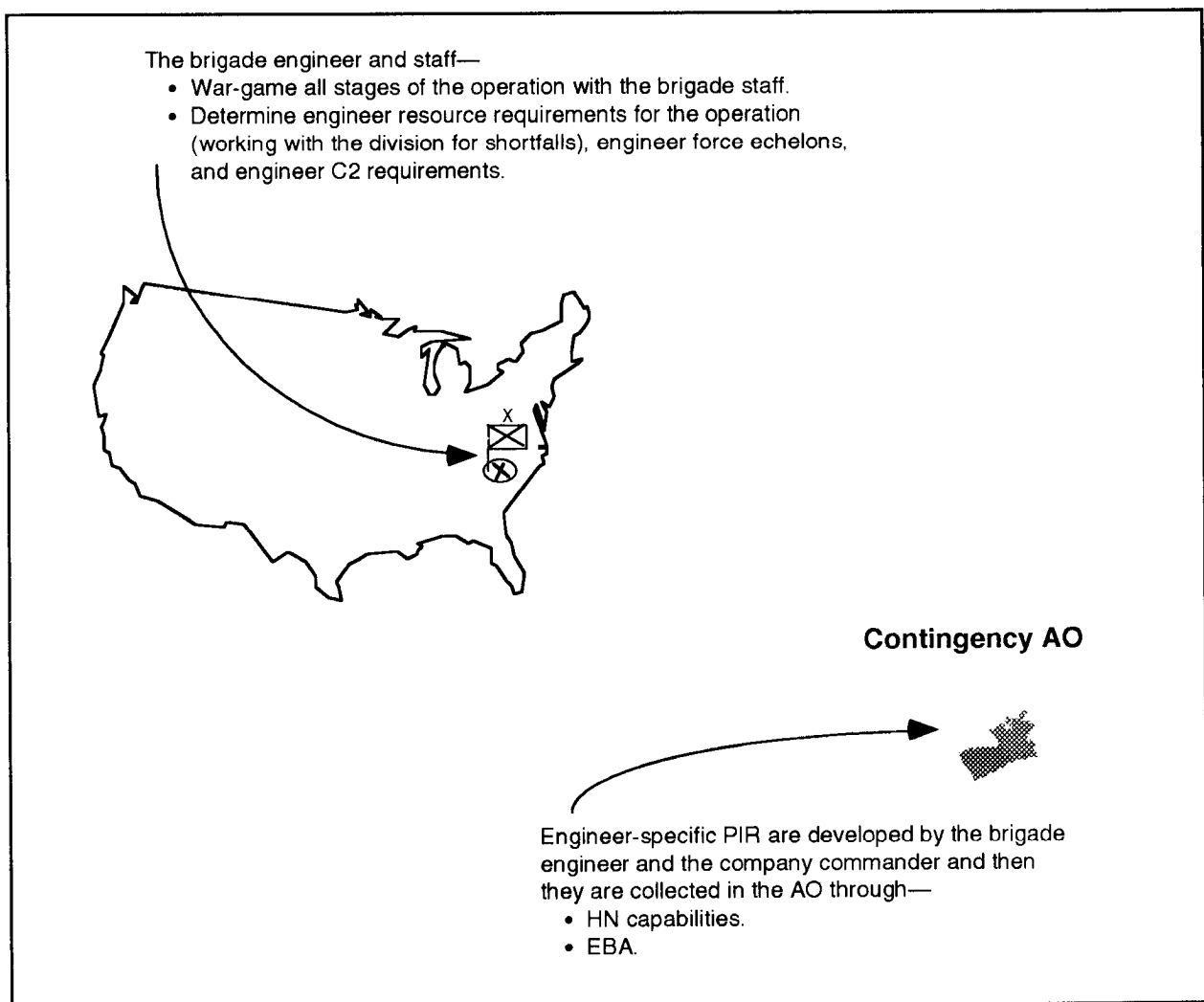


Figure 7-2. Engineer-force predeployment operations

engineer commander and his staff); however, changes can be made as required, pending the METT-T analysis by the brigade. The task organization established during initial planning must potentially address all stages of the force-projection operation. At brigade level, the brigade engineer, the staff, and the supporting company commander must consider all contingencies to ensure that the brigade achieves a mix of engineer forces that mutually support the mix of maneuver forces. This may require additional engineer forces. If the engineer task organization exceeds two engineer companies, the brigade engineer may request that the division establish an engineer C2 HQ from internal assets of the parent division light engineer battalion.

During detailed mission analysis at the brigade, the review and analysis of initial engineer-specific LOGPACs, allocated to the brigade by the division engineer commander, is key. Requirements must be balanced against allocations and the brigade engineer must quickly resolve any shortfalls or omissions. The brigade engineer must also consider the following engineer factors during the preparation of the engineer estimate and ultimately the engineer annex:

- Terrain analysis and topographic support.
- HN engineer equipment.
- HN engineer materials and supplies.
- Conditions and capabilities of ports, airfields, MSRs, and bridges.
- Enemy engineer capabilities.
- Extent of enemy obstacles in the lodgment.
- Survivability of critical facilities/assets.
- Construction water sources.

- Employment of SCATMINes and situational obstacles.
- Battle damage repair.
- Force sustainment and protection.
- ROE.
- UXO.

The brigade engineer also integrates into the brigade S2's IPB. The brigade engineer's involvement in the IPB process ensures that engineer-specific PIR, IR, and NAIs are incorporated into the collection plan. The brigade engineer develops these IR to support all eight stages of the force-projection operation. Corps collection assets include long-range surveillance teams and SOF already in position in the force-projection operational area. The IPB/EBA helps identify engineer force requirements to accomplish the mission.

A light engineer company normally forms the base of the engineer force for a light infantry brigade during deployment. Additional engineer forces (division and nondivision) and assets are task-organized to the brigade based on the METT-T analysis of the force-projection operation (if these engineer forces are less than company strength, then the brigade engineer should consider task organizing them to the deploying engineer company). The company commander initiates the alert notification. He is also responsible for the recall, assembly, and movement of his unit to the marshaling area. While the brigade engineer conducts mission analysis with the brigade battle staff, the company commander simultaneously receives initial mission and deployment guidance from the DIVEN commander and the supported brigade commander. As soon as predeployment activities allow, the company commander links up with the brigade engineer and assists in the planning process. The focus of this assistance is the

identification of engineer missions, specified and implied tasks, and any special task organizations affecting the company.

Once the brigade plan is finalized, the company commander should be concerned with the—

- Echelonment and deployment sequence of engineer forces.
- Structure of engineer C2.
- Conduction of detailed rehearsals for engineer missions.
- Attachment of additional division or nondivision engineer assets.

The company commander is responsible for the deployment of all engineer assets task-organized under his control. Additionally, the company commander must publish the OPOD for his unit and any subordinate elements.

DEPLOYMENT OPERATIONS

This stage initiates the execution of the force-projection operation and encompasses the movement and the establishment of an initial lodgment in the objective area (see *Figure 7-3, page 7-8*). Depending on the location of the objective area, deployment to an intermediate staging base (ISB) may be required. This allows for final planning, coordination, and preparation before the assault force is transported tactically into the lodgment. Tailored assault packages, echeloned C2, and the synchronization of joint air power with assault operations are essential for mission success. The strength and composition of the first elements to arrive in the AO depend on METT-T, including the—

- Number of friendly HN forces available to provide security.
- Strength and capabilities of the enemy.

- Availability of other US forces to provide support.

ENTRY OPERATIONS

The requirements of entry operations following the deployment vary. The brigade's entry may be in DS of the HN or forward presence forces. Some conditions may dictate that operations be conducted in the absence of either. Entry operations may be either opposed or unopposed. The brigade assault force may conduct its own unopposed entry operation or follow the opposed entry operation conducted by another force and conduct a relief in place. During entry operations, SOF initiate operations in denied areas to conduct surveillance, provide intelligence, and seize or destroy critical targets. The assault force secures its initial objectives to—

- Establish and maintain a secure lodgment.
- Protect it from direct fires and observed indirect fires so it can safely land follow-on forces during the next stage of the operation.

Brigade Engineer Functions

The division and corps normally echelon engineer C2 early in the deployment sequence based on the level and density of engineers in the theater (see *Figure 7-4, page 7-9*). Sometimes this is not the case, and the brigade engineer is the senior engineer initially on the ground for a brigade assault force occupying a lodgment. Then he becomes the Army force or JTF engineer responsible for orchestrating the engineer support for the close, deep, and rear battle. The brigade engineer should be concerned with the current status of M/S planning for the first phase of the operation, specifically the following:

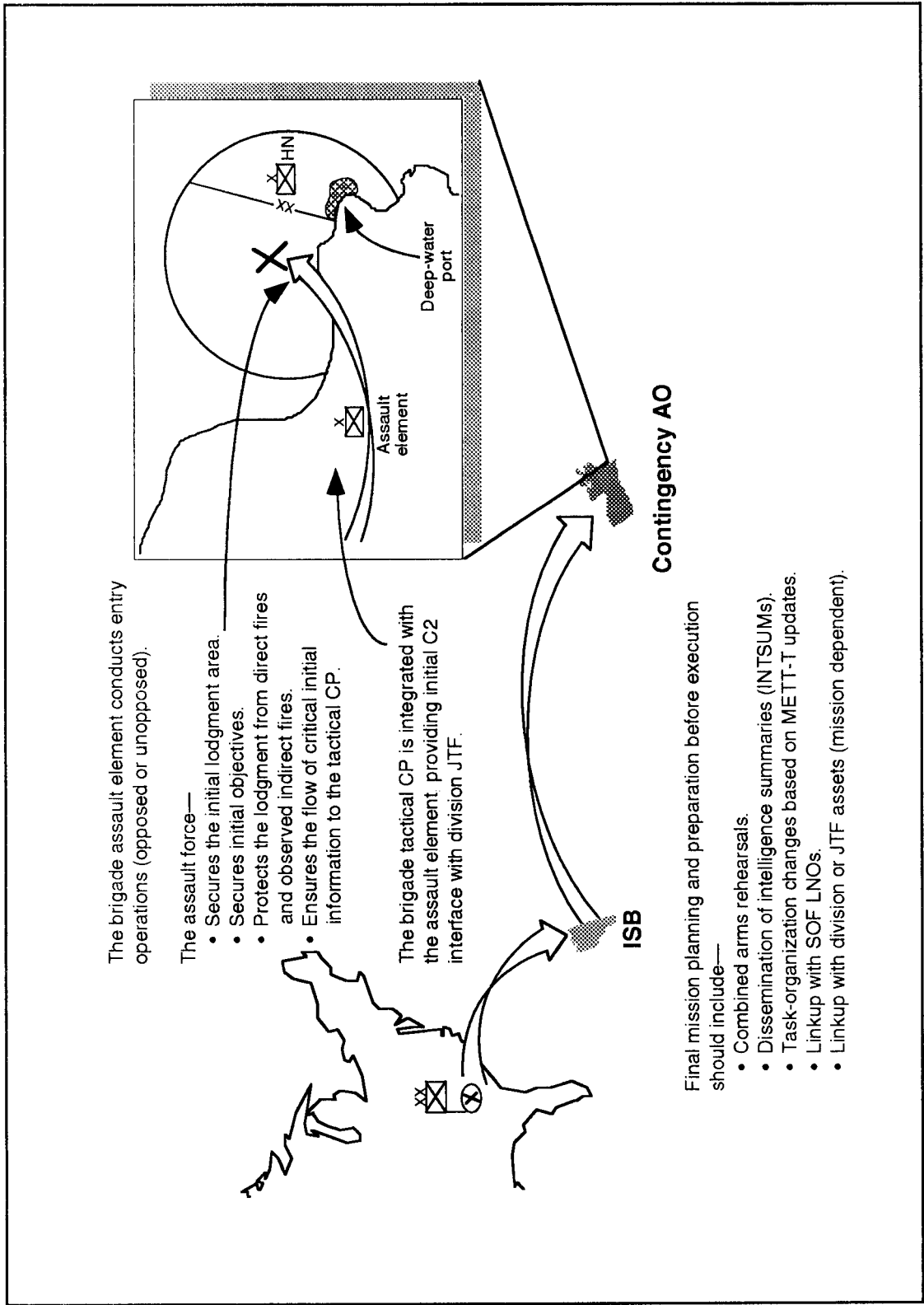


Figure 7-3. Deployment and entry operations

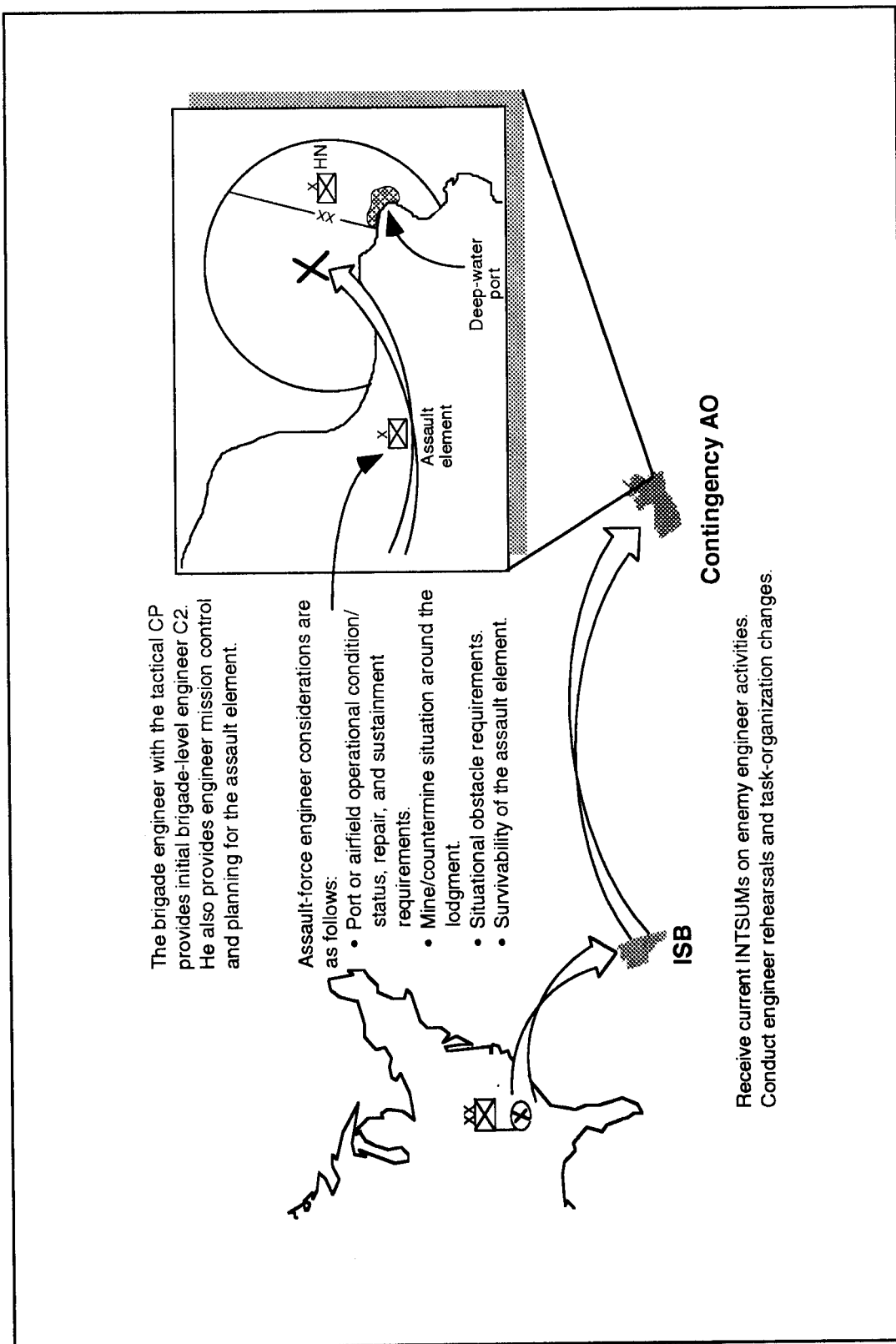


Figure 7-4. Engineer force deployment and entry operations

- Extent of obstacles (friendly/enemy) within the lodgment.
- Current operational condition of the port or airfield.
- Location and condition of HN engineer equipment.
- Location and quantity of Class IV/Class V supplies.
- Critical assets and facilities that require survivability.
- Use of situational obstacles to repel counterattacks.
- Capability of the road network to support MSR and the requirements for improvements to them.
- Location of construction water sources.
- Battle damage repair.
- CSS for engineers.
- Assured mobility.
- Current operational conditions (such as usable length, width, surface condition, and composition) of the port or airfield.
- Initial estimates of port or airfield repair or upgrade.
- Obstacle plan/overlay of obstacles in the lodgment area (planned, templated, and executed), to include plans for obstacle turnover from the relieved force to the relieving force.
- Capabilities of enemy engineers, including the description, location, and employment techniques of mines and explosives encountered (UXO information is also included).
- Location and condition of engineer equipment secured or located by the assault force and the subsequent turnover of engineer-specific items left or seized by the relieved force.
- Class IV/Class V stockpiles (mines and explosives) in the lodgment area.
- Engineer characteristics of the AO.
- Engineer contact point for the final exchange of information during the relief.

If the brigade assault force conducts a relief in place of another unit (a ranger battalion, a ranger regiment, or a marine force) that has already conducted a forced-entry operation, the brigade engineer must coordinate with the relieved unit's LO to obtain this information. *Chapter 5* of this manual addresses relief-in-place operations in more detail.

Vital to the success of the relief in place is the transfer of engineer-specific information between the two forces. This is accomplished by the brigade engineer and either the ranger regiment engineer cell or the ranger battalion. These two cells must acquire and develop the necessary information to pass on to the relieving force. This is accomplished either at the staging base, at the ISB, en route to the objective area, or at the lodgment area. The following are examples of information to be passed:

If the brigade conducts its own entry operation, either opposed or unopposed, the information listed above is developed by the brigade engineer who is part of the assault force. The brigade engineer receives this data from the brigade S2 as the collection plan is executed by the long-range surveillance detachment, SOF, and organic assets, to include scouts and combat engineers. The brigade engineer must estimate repair or upgrade requirements that are needed to sustain force buildup and, if necessary, he must coordinate for additional assets. The priority of engineer effort during entry operations is METT-T dependent. Sustainment

of the airfield and mobility to assault forces are usually the initial priorities of engineer effort. The next priority is either countermobility or survivability depending on the potential counterattack threat or the need to protect vital facilities in the lodgment area. The brigade engineer's COA must focus on shaping the battlefield to enhance the effectiveness of the maneuver force.

Company Commander Functions

Depending on the task organization of the brigade assault force, the company commander may or may not have direct control over his subordinate units. In either case, he must ensure that they are prepared to conduct the following close combat operations:

- Assault breaching of extensive complex obstacles.
- Bridge demolitions to isolate the lodgment against counterattacks.
- Emplacement of situational obstacles (such as Volcano, MOPMS, conventional minefield, and wire) based on templated threat capabilities.
- Route-clearance operations.
- Rapid runway repair (RRR).
- Engineer reconnaissance.
- Runway-clearance operations (including the use of vehicle "hot-wire" teams).

It is important that the company commander deploys where he can best C2 his subordinate units. The brigade engineer usually deploys with the brigade tactical or assault CP, while the company commander deploys with the brigade main CP. When the company commander arrives at the lodgment, he immediately coordinates with the brigade engineer. The brigade engineer informs the company commander of the engineer situation in the lodgment. This

transfer of information is critical to the company commander's execution of close combat missions. Depending on the mission, the company commander focuses his efforts on—

- Tracking TF sector M/S mission status.
- Identifying problems.
- Finding and executing solutions.

COMBAT OPERATIONS

The combat operations stage is an extension of the deployment and entry operations stages. The focus of this stage is to complete the buildup of combat power (if not already accomplished during the previous stage) and quickly expand military operations. *Figure 7-5, page 7-12, and Figure 7-6, page 7-13*, depict examples of this stage. The key to execution is to place a force on the ground that can take the fight to the enemy while follow-on forces arrive in the lodgment area for subsequent operations. Engineer forces supporting combat operations are normally task-organized to maneuver TFs for mobility operations. These forces must be—

- Compatible with the type of maneuver force they are supporting.
- Capable of self-sustainment for the duration of force buildup.
- Capable of supporting decentralized operations.

Principal tasks conducted during the combat operations stage include but are not limited to—

- Forward operating base establishment.
- Force closure.
- Security of the lodgment by expanding the security area out to the range of indirect-fire weapon systems.
- Joint force linkup and coordination.

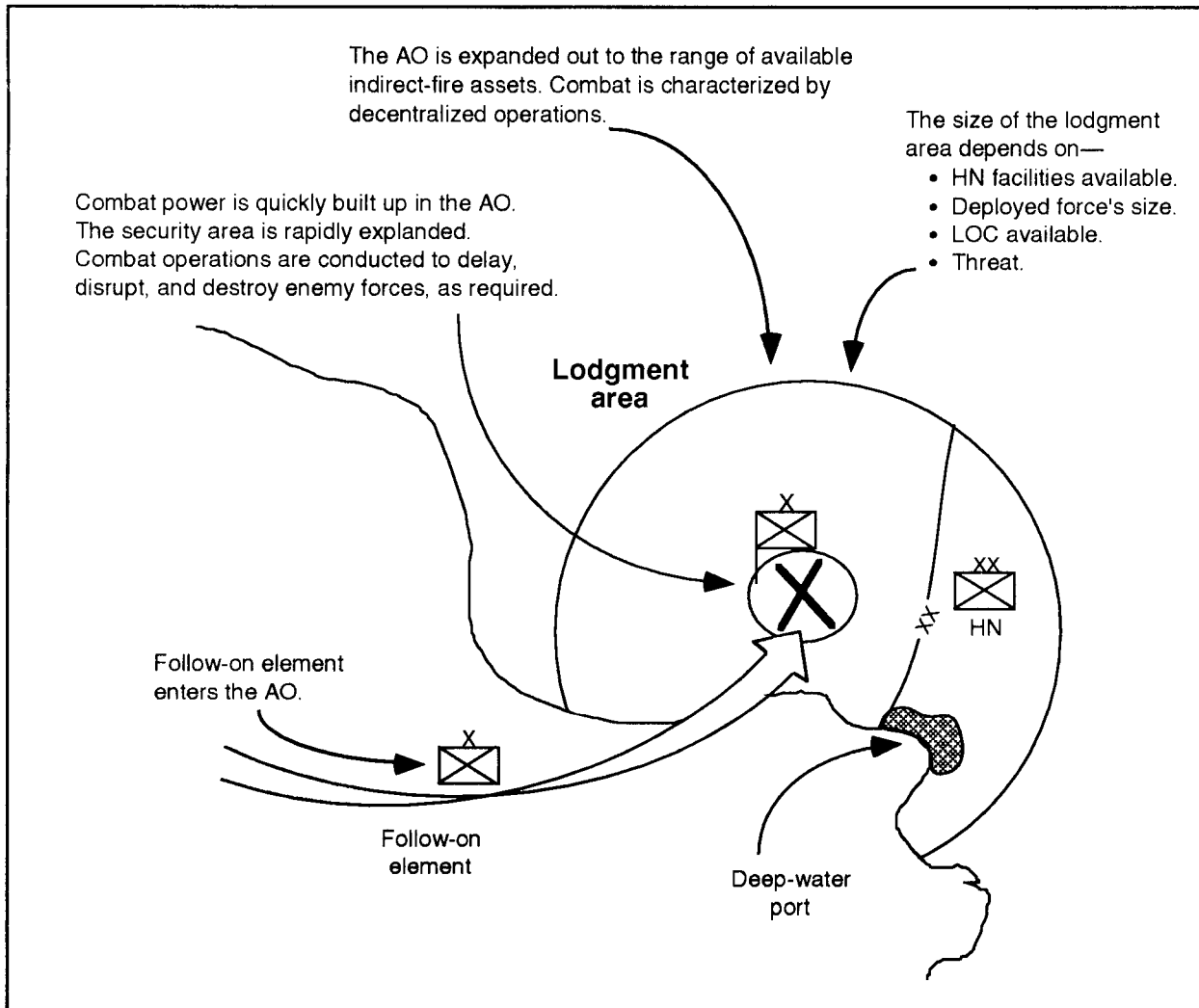


Figure 7-5. Combat operations analysis

- Offensive operations to destroy enemy forces threatening the lodgment.
- Relief in place of the assault element.

- Deployed force's size.
- LOC available.
- Threat.

A combined arms effort and continued synchronization of the joint combat power are essential during this stage. Speed is critical since the success of decisive combat operations hinges on rapidly building combat power while maintaining the initiative. The size of the lodgment area depends on—

- HN facilities available.

Combat forces and a logistical base are concurrently established and expanded to support combat operations. As the situation in the lodgment area is stabilized, the brigade performs (as directed) expanded combat operations from the lodgment area to eliminate the enemy force. These operations can be offensive and defensive in nature and

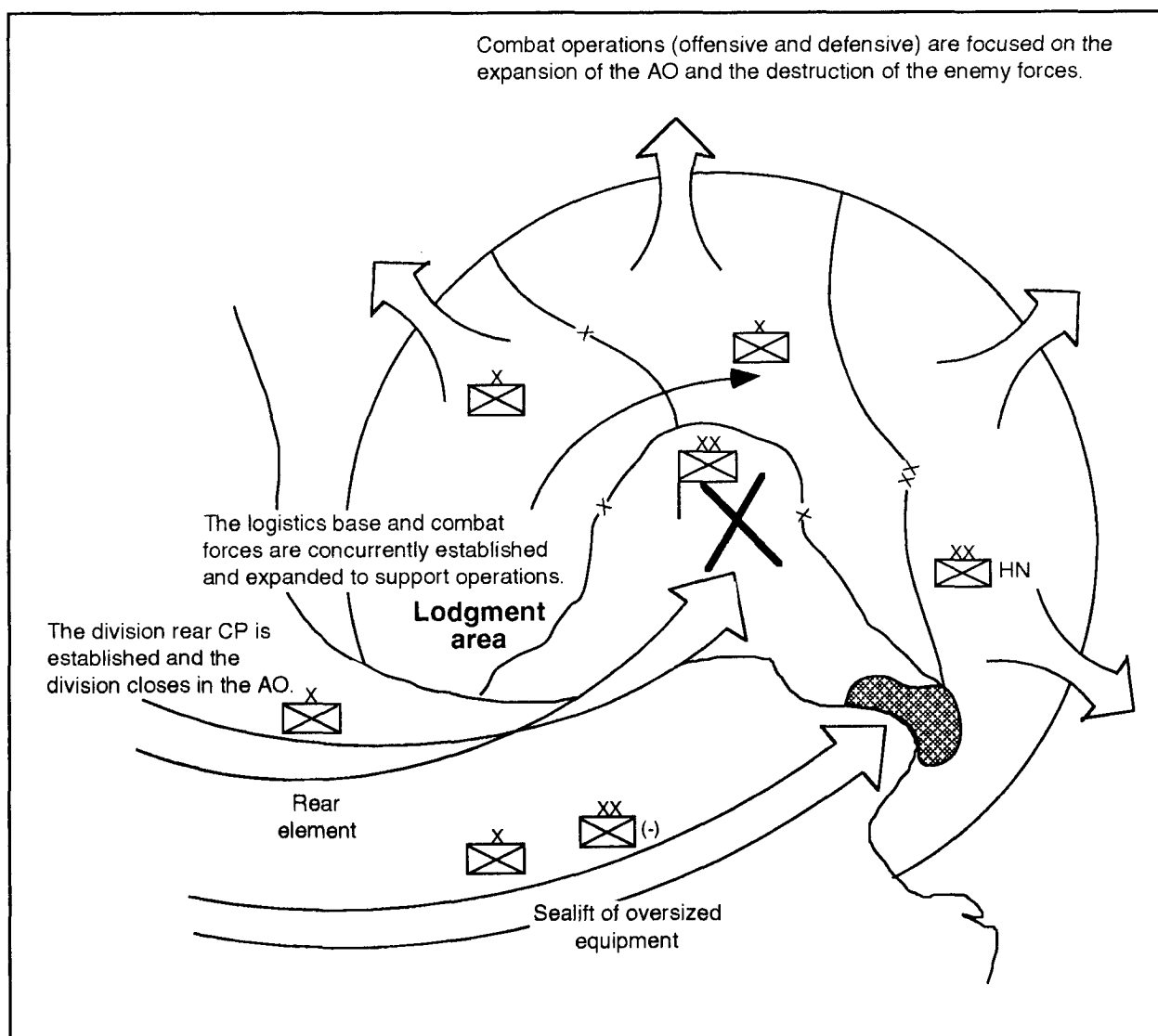


Figure 7-6. Decisive combat operations analysis

will require additional combat, CS, and CSS forces.

Maneuver Considerations

With the closure of follow-on and support forces, the lodgment and security area is expanded. Military operations are directed toward attaining the tactical objectives that achieve the strategic purpose of the operation. The operation's focus is on destroying or neutralizing the enemy's center of gravity

by simultaneously applying joint fire and maneuver. Military operations include offensive, defensive, and other tactical operations.

Military operations may include mixed maneuver forces. With the introduction of armored forces to the lodgment area, either by strategic airlift or sealift, the maneuver force commander may tailor the force to achieve a light/armored or an armored/light mix.

Brigade Engineer Functions

Because execution of the combat operations stage is the most critical point for the force, the brigade engineer must ensure that the brigade is fully resourced with engineer forces and assets for the mission. The planning, resourcing, and identifying of additional assets required for this stage must occur during the initial planning to ensure the availability and task organization of engineer forces. The brigade engineer focuses on providing the maneuver force commander with accurate and timely engineer-pertinent information that influences the way current and future operations are conducted (see *Figure 7-7*). The brigade engineer must continue to coordinate engineer support to maintain the speed of the force buildup and to ensure the flexibility of the committed maneuver forces. Some areas addressed during this stage are—

- Coordination of HN engineer resources.
- General engineering of the lodgment.
- Maintenance of LOC.
- Mobility operations of maneuver forces.
- Survivability in and around the lodgment.
- Continuation of engineer reconnaissance.
- Airfield sustainment and upgrade.
- Integration of EAD engineer support.
- ROE.
- Force protection.
- UXO.

Although the priority of engineer effort is METT-T dependent, engineer forces must focus on supporting the maneuver force's expansion of the initial lodgment area. The

maneuver force's success can hinge on engineer support which allows them to maintain the initiative. Engineer forces must be properly task-organized to support maneuver units conducting close combat operations. The brigade engineer must continually assess engineer requirements and coordinate with the DIVEN for additional EAD engineer assets to support current and future operations. Normally, DIVEN companies focus their efforts on supporting the maneuver TFs, with corps units focusing on general engineering. As the situation dictates, corps engineers are then task-organized to the forward TFs to augment the main effort, increasing the capabilities of the DIVEN units.

MSR maintenance becomes a critical engineer mission as force buildup is complete and the force begins conducting decisive combat operations. This is particularly true when armored forces are employed with the light brigade in the AO. Available blade assets are commonly consolidated at the brigade (CSE company and other corps engineer assets) and formed into MSR maintenance teams. Detailed planning is conducted by the brigade engineer and the company commander to ensure that mobility and survivability efforts are balanced in the brigade sector.

Once the brigade has closed, the priority of engineer effort shifts to supporting the maneuver force's involvement in offensive and, if required, defensive operations. If higher engineer C2 arrive late, the brigade engineer must shift his focus from the close, deep, and rear battle of the lodgment area to the close battle of his brigade sector (see *Figure 7-8*, page 7-16). With the introduction of heavy forces into the lodgment area, the maneuver brigade can be task-organized with a mix of armored and light forces; likewise, engineer forces can be task-organized

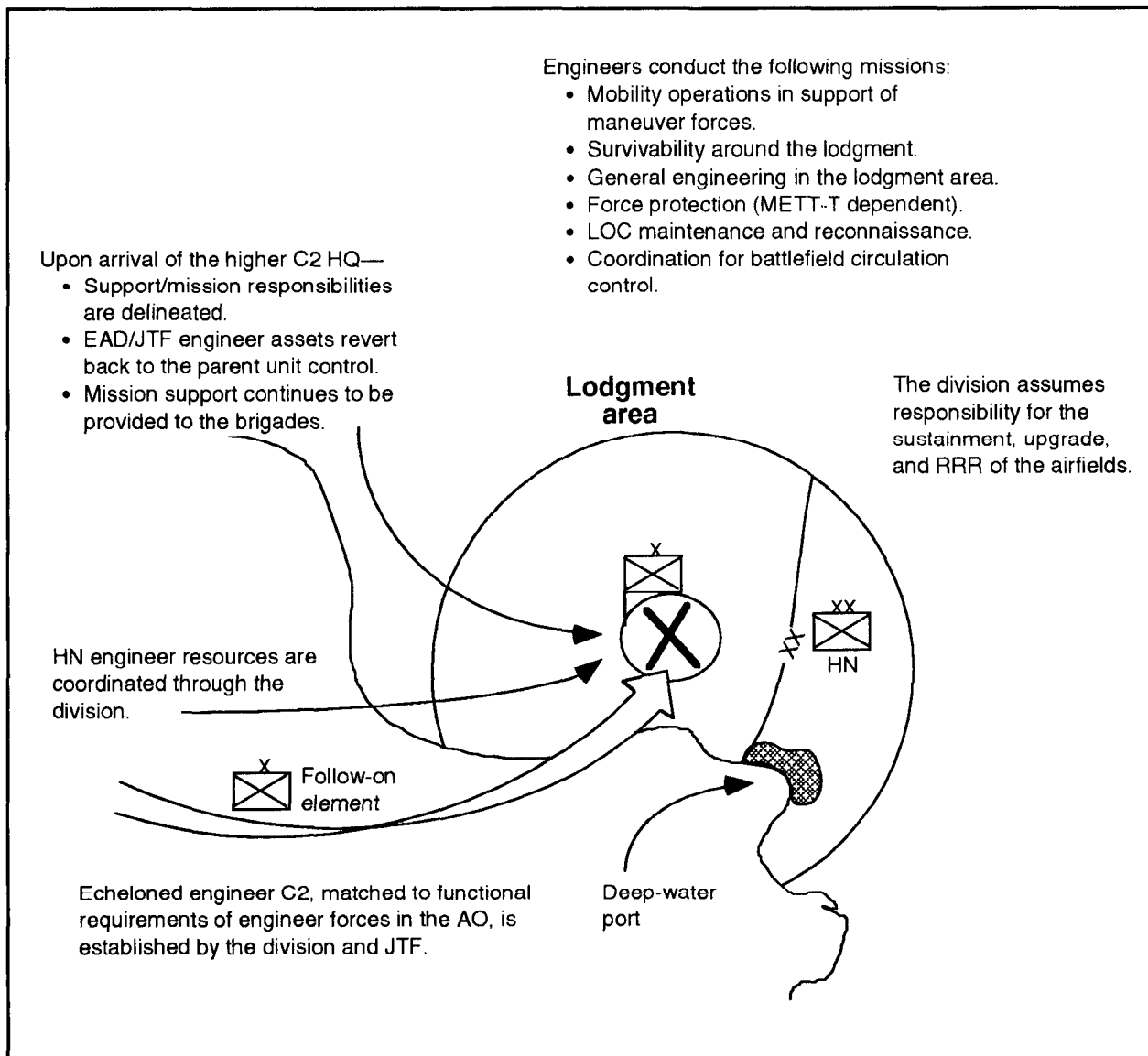


Figure 7-7. Engineer functions in combat operations

with a mix of mechanized and light forces. When a mechanized engineer force is task-organized to a light TF, a CSS package must accompany the mechanized engineer force because it is beyond the capability of the light force's CSS structure to support them. Similarly, when a light engineer force is task-organized to a mechanized TF, transportation assets have to be provided so that the light force has battlefield mobility.

Since the priority of engineer support is normally devoted to TF combat operations, the brigade engineer must continue to monitor general engineering. These missions include FACE, force-protection operations, and LOC maintenance. This level of effort normally requires company-level C2 and the equipment assets found in corps engineer companies. The corps assets attached to the brigade before the arrival of the

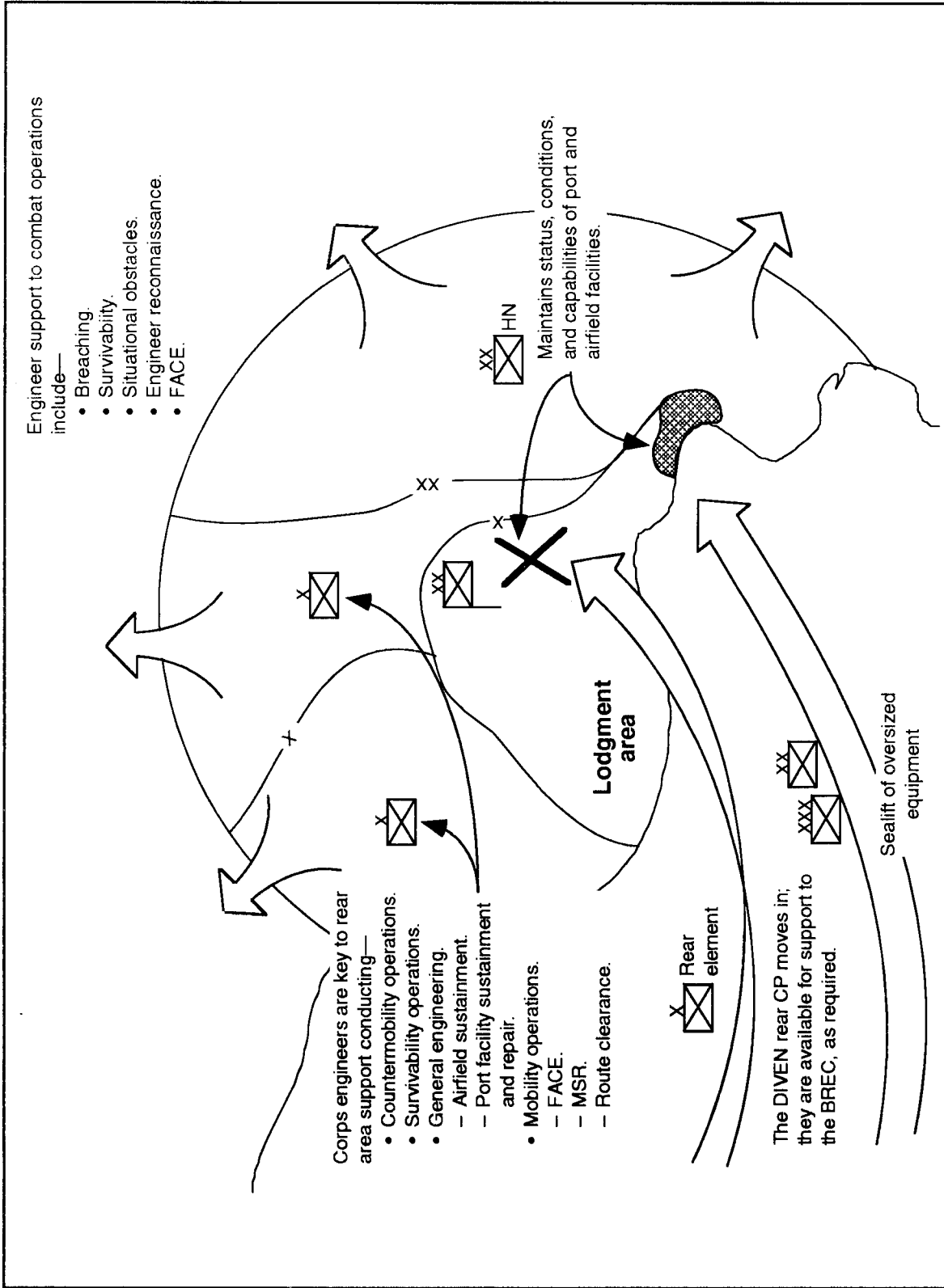


Figure 7-8. Engineer functions in decisive combat operations

DIVEN commander and/or JTF C2 into the lodgment may revert to the DIVEN commander or JTF control depending on METT-T and the success of the overall operation.

Detailed functions and responsibilities of the brigade engineer and the company commander in support of decisive combat operations are discussed in *Chapters 3, 4, and 5* of this manual.

Company Commander Functions

The company commander continues to provide support to maneuver forces conducting close combat operations, much the same as in deployment and entry operations. It is critical that the company commander continuously update the brigade engineer and the brigade commander on the operational and logistical status of his subordinate units. This allows the brigade engineer to recommend proper reallocation of engineer resources to the maneuver commander, if necessary. It also facilitates the brigade engineer's coordination for engineer-specific logistics requirements. The company commander is readily available to the brigade commander to operate forward in the brigade tactical area or to assume the duties of the brigade engineer, when either is required. Engineer support to military operations is decentralized by nature. The company commander ensures that his subordinates' freedom of action and initiative is maintained by issuing clear mission guidance and intent.

WAR TERMINATION AND POSTCONFLICT OPERATIONS

The objectives of this stage are to consolidate friendly control of the operational area, redeploy the force as rapidly as possible, and shift the operation from combat to peacetime engagement operations (see *Figure 7-9, page 7-18*).

REDEPLOYMENT AND RECONSTITUTION OPERATIONS

Redeployment may be to CONUS, an ISB, or another theater of operations. Once the force is redeployed, it is reconstituted and made ready for other force-projection operations. As in the deployment stage, echeloning C2, CS, and CSS elements while maintaining flexibility and security is essential for successful redeployment.

Brigade Engineer Functions

The brigade engineer's focus is general engineering missions aimed at facilitating the brigade's redeployment (see *Figure 7-10, page 7-19*). Examples of engineer missions and responsibilities are—

- Sustainment.
- MSRs.
- LOC.
- Ports/airfields.
- ADC.
- Coordination for obstacle turnover with stay-behind forces or HN forces.
- Coordination for obstacle removal and/or clearance.
- Possible involvement in peacetime engagement operations.
- Coordination for the return of HN engineer equipment.
- Coordination for EAD engineer support.
- Force protection.

The relative level of responsibility devoted to these engineer missions by the brigade engineer depends on the—

- Level of violence.
- Duration of the operation.

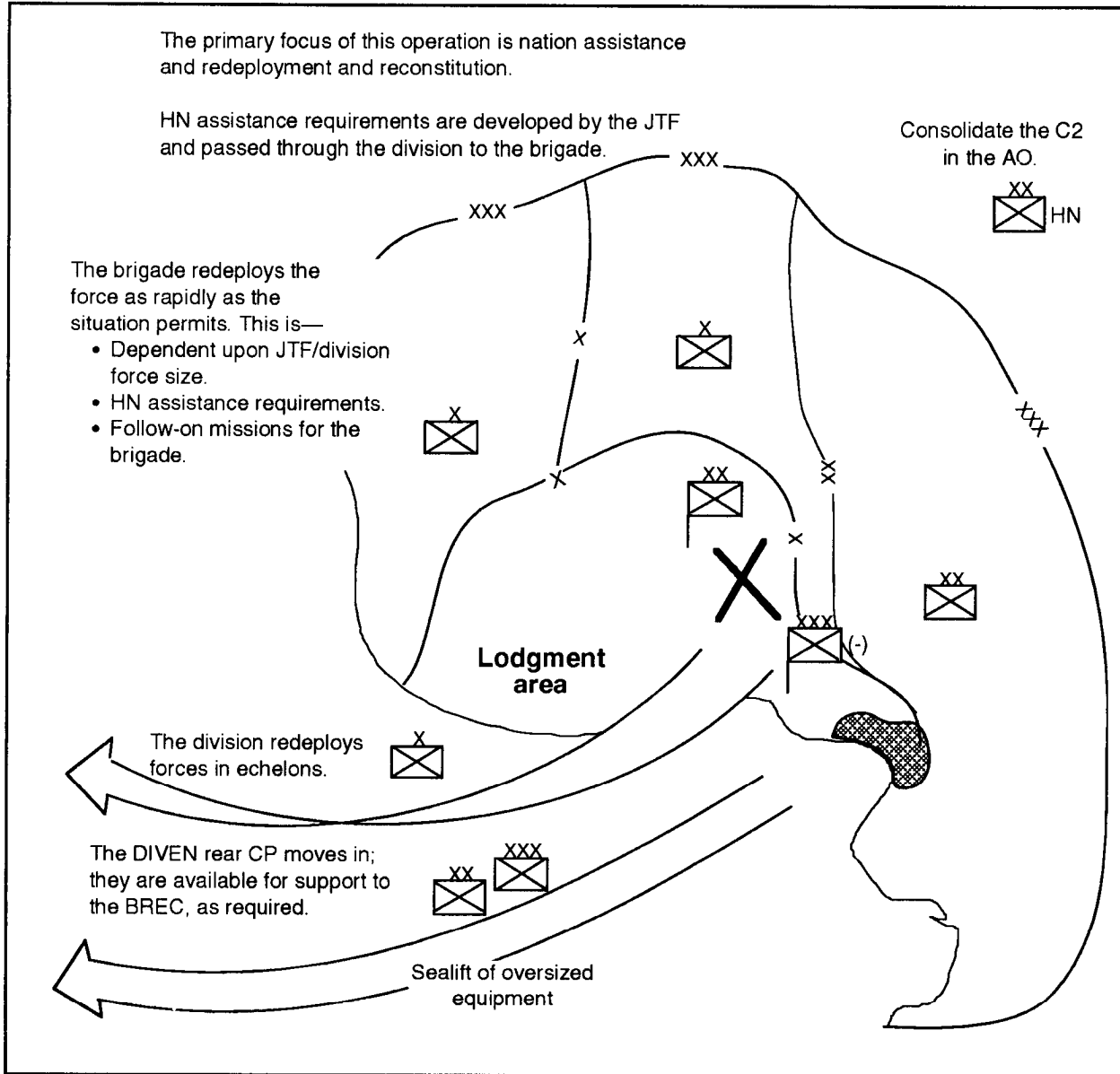


Figure 7-9. War termination and redeployment and reconstitution operations

- Force composition of the brigade, division, and JTF.
- Maturity of the force-projection operational area.

Nondivision engineers normally execute these engineer missions because of limited engineer capability within the brigade, with the light DIVEN forces redeploying with an associated brigade.

Company Commander Functions

The company commander is responsible for the redeployment of all engineer assets task-organized under his control. Specific missions that the company commander must execute are—

- ADC.
- Obstacle removal and/or clearance.

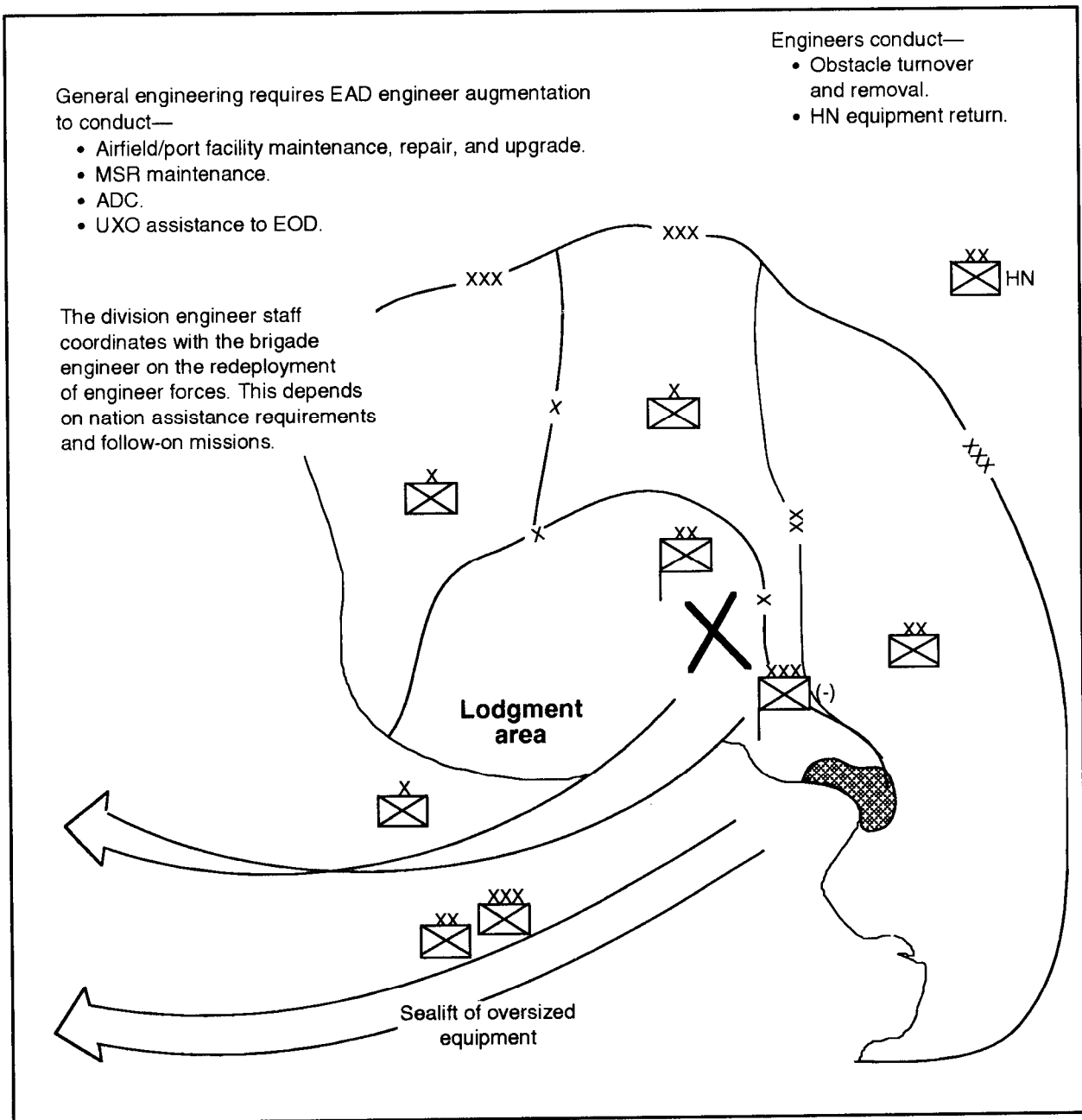


Figure 7-10. Engineer functions in war termination and redeployment operations

- Physical handover of HN engineer equipment and supplies under his control.
 - Obstacle turnover.
- These missions are received from the maneuver commander through the brigade engineer.