Chapter 2

Obstacle Breaching Theory

Obstacle breaching is the employment of a combination of tactics and techniques to project combat power to the far side of an obstacle. It is perhaps the single most difficult combat task a force can encounter. Understanding breaching theory is the first step to understanding breaching tactics. Breaching is a synchronized cormbined arms operation under the control of the maneuver commander. Maneuver units employ breaching operations which include bypass, in-stride, deliberate, assault, and covert.

Forces encountering obstacles either conduct a breaching operation or extract themselves by organic means. A unit will extract itself if the obstacle is not defended or to reduce casualties from fires. As an example, a tank platoon will use its tank-mounted plow to extract itself from a minefield.

"Bulling through" or forcing through is not a breaching operation. "Bulling through" is a desperate decision made when a commander must react immediately to extricate his force from an untenable position within an obstacle and no other breaching operations are possible. When the force is in a minefield receiving fires and taking heavy losses, the commander may decide to immediately force his way through the minefield rather than wait or withdraw.

Obstacle reduction is the physical creation of a lane through or over an obstacle. Normally, engineers and specialized equipment such as tank-mounted mine plows create lanes to reduce an obstacle. The lane can be created by either making or finding a pathway through the obstacle.

Proofing is verifying that a lane is free of mines bypassing a mine roller or another mine-resistant vehicle through as the lead vehicle. This is only done when the risk of live mines remaining in the lane exceeds the risk of loss to enemy fires while waiting. As some mines are resistant to some breaching techniques (for example, magnetically-fused mines may be resistant to a blast from a mine-clearing line charge (MICLIC), proofing should be done when time, threat, and mission allow.

A bypass is a route that avoids the obstacle. When a unit bypasses an obstacle, it physically changes its direction of movement to avoid the obstacle. This must be done with caution because it might play into the enemy's hand.

Obstacle clearing is the total elimination or neutralization of an obstacle. Clearing operations are not conducted under fire. They are usually performed by follow-on engineer forces.

Breaching actions are the "plays" that the unit will execute on contact with an obstacle. They are developed and rehearsed by the TF and company teams to synchronize and standardize the execution of breaching operations.

BREACHING TENETS

Successful breaching operations are characterized by the application of the breaching tenets. The tenets are—

- Intelligence.
- Breaching fundamentals.
- Breaching organization.
- Mass.
- Synchronization.

Intelligence

Battlefield success depends largely on the ability of the force commander to "see the battlefield." He must identify how the enemy is using the ground to minimize the risk of surprise. This is particularly true when attempting to counter enemy use of obstacles. The force commander does this by his IPB. The IPB process achieves success when all available intelligence-gathering assets are focused to obtain well-chosen and specifically tasked PIRs. Hard intelligence gathered by reconnaissance becomes the foundation for developing and revising the situation template. The situation template drives maneuver planning and decisions the commander must be prepared to make. The decision support template (DST) is used by the commander to convey these decisions in graphic form. It enables the commander and his staff to develop an effective plan.

Time-constrained planning requires rapid development of the enemy situation template. A minimal situation template, complete with templated obstacles, allows development of the initial event template and provides initial PIR for the intelligence collection plan. Adequate time for intelligence collection is critical to developing an accurate picture of the battlefield, yet time is normally in short supply. While templating is essential to focus the collection plan, too much time can be spent on templating at the expense of R&S.

In any operation where enemy obstacles can interfere with friendly maneuver, obstacle intelligence (OBSTINTEL) becomes a PIR. Finding enemy obstacles or seeing enemy obstacle activity validates and refines the intelligence officer's (US Army) (S2's) picture of the battlefield, OBSTINTEL helps him to determine enemy intentions and plans as well as the strength of his defenses. The force

engineer is the unit's expert on enemy countermobility. He assists the S2 in templating enemy obstacles and analyzing OBSTINTEL.

An unverified enemy template can lead to disaster. The force may aim the attack at the wrong place. Units may deploy to breach expected obstacles early, wasting mission time to "feel" their way into nonexistent obstacles, or they may blunder into an unexpected obstacle or fire sack. *Appendix B* discusses confirming and refining a situation template.

OBSTINTEL is a critical indicator to verify the enemy template. The force's operations and training officer (US Army) (S3), S2, and engineer establish effective OBSTINTEL collection by determining specific obstacle PIR. Examples of obstacle information needed to fulfill obstacle PIR include—

- Obstacle location.
- Obstacle orientation.
- Presence of wire.
- Gaps and bypasses.
- Minefield composition (buried or surface AT and AP mines, antihandling devices, and depth).
- Type of mines.
- Location of enemy direct-fire weapons.

OBSTINTEL is particularly important for discovering the types of mines and mine fuses the enemy has employed. The engineer depends on this information since he must determine which reduction techniques offer the best chance for success and minimize risk to the breach force. This requires a dismounted reconnaissance patrol to examine mines within the minefield (not just the first fow because it may consist of AP mines only).

Obtaining OBSTINTEL requires all available collection assets. Aviation and ground surveillance radars are tasked to identify fortification and obstacle emplacement activity. Scouts, task-organized with engineers, conduct reconnaissance of likely obstacle locations identified through templating. Combat patrols probe bypasses and identify obstacles. Engineer patrols are tasked to obtain OBSTINTEL by supplementing scout reconnaissance. Specific collection taskings are detailed in the collection plan by identifying named areas of interest (NAIs) that focus reconnaissance on gathering information that confirms or denies the enemy template.

Reconnaissance is a combined arms activity. Reconnaissance forces include engineers when collecting OBSTINTEL. An engineer squad moves with the scouts or patrol and conducts dismounted reconnaissance of either templated or discovered obstacles. The engineers have the flexibility to detach and dismount sapper teams and to develop the details of the obstacle. This allows the scouts or patrol to concentrate on the overmatching force.

During a hasty attack, the engineer platoon conducts reconnaissance to assist a company team in developing the situation. TF commanders may also assign engineer platoon reconnaissance missions before a deliberate attack as part of the TF reconnaissance effort. The commander assigns engineer reconnaissance missions based on the type of engineer unit. Mechanized engineers are capable of covering numerous NAIs, but they cover them in little detail. They are adept at reconnoitering enemy tactical obstacles; however, they lack the stealth necessary to reconnoiter protective obstacles. Light engineers are capable of covering few NAIs, but they cover them in great detail. They can use stealth to gain detailed information on enemy protective obstacles. A combination of light and heavy engineers is the ideal obstacle reconnaissance force. The mechanized engineers use their mobility to reconnoiter numerous tactical obstacle NAIs while light engineers use stealth to reconnoiter protective obstacle NAIs.

Engineers engaged in reconnaissance for OBSTINTEL should rarely, if ever, be used to reduce obstacles during the reconnaissance (although they make ideal leaders for subsequent breaching operations). Inadvertent detonation during reduction may compromise the engineers and scouts, defeating the reconnaissance mission. It may also compromise the entire attack. The opportunity to exploit the breach requires a force prepared to act quickly and vigorously. The force must secure the lanes, employ suppressive direct and indirect fires, and attack before the enemy can react to destroy the reconnaissance elements and restore the integrity of its defense.

During the operation, any unit encountering an obstacle must quickly develop the situation to provide detailed information to the commander. This is a continuous requirement and supplements previous OBSTINTEL.

Breaching Fundamentals

Suppress, obscure, secure, and reduce (SOSR) are the breaching fundamentals that must be applied to ensure success when breaching against a defending enemy. These tactics and techniques will always apply but may vary based on specific situations.

Suppress. Suppression is the focus of all available fires on enemy personnel, weapons, or equipment to prevent effective fires on friendly forces. Suppressive fires include the full range of weapons from direct and indirect fires, electronic countermeasures (ECM), and directed energy. The purpose of suppression is to protect forces reducing and maneuvering through the obstacle and to soften the initial foothold (assault force objective).

Effective suppression is the mission-critical task during any breaching operation. Suppressive fires in sufficient volume (3:1 minimum) serve to isolate the breaching site. Successful suppression generally triggers the rest of the actions at an obstacle. Fire control measures are used to ensure that all fires are massed, lifted, and shift-synchronized with other actions at the obstacle.

Obscure. Obscuration hampers enemy observation and target acquisition and conceals friendly activities and movement. Obscuration smoke deployed on or near the enemy position minimizes its vision. Screening smoke employed in the breaching area or between the breaching area and the enemy conceals movement and obstacle-reduction activities. It also degrades enemy ground and aerial observation. Obscuration must be employed to protect obstacle reduction, passage of assault forces, and deployment of forces in assault formations.

Obscuration must be carefully planned to provide maximum degradation of enemy observation and fires, but it must not significantly degrade friendly fires and control. Terrain masking that obscures the breaching site is usually the only form of obscuration that is not a double-edged sword.

Secure. The force secures the breaching operation site to prevent the enemy from interfering with obstacle reduction and passage of the assault force through the lanes created during the reduction. Security must be effective against outposts and fighting positions near the obstacle and against overmatching units and counterattack forces. In general, enemy tactical obstacles are secured by fires, and protective obstacles are secured by force.

Identifying the extent of the enemy defenses is critical before selecting the appropriate technique to secure the breach. If defenders control the breaching site and cannot be adequately suppressed, the force must secure the breaching site by occupation before it can reduce the obstacle.

Reduce. Reduction means creating lanes through or over the obstacle to allow the attacking force to pass. The number and width of lanes created varies with the situation and type of breaching operation. The lanes must be sufficient to allow the force to cross and accomplish the mission. Lanes are handed over to follow-on forces. The unit reducing the obstacle will mark and report obstacle and lane locations and conditions to higher headquarters. Follow-on units will further reduce or clear the obstacle when possible.

Reduction cannot be accomplished until the other SOSR breaching fundamentals are applied and become effective. The force must synergistically isolate the breaching site and overwhelm the defender before reduction can proceed and the breach can be exploited.

Breaching Organization

The commander organizes the force to accomplish SOSR breaching fundamentals quickly and effectively. This requires him to organize support, breach, and assault forces with the necessary assets to accomplish their roles.

Support Force. The support force's primary responsibility is to eliminate the enemy's ability to interfere with the breaching operation. It must—

- Isolate the battlefield with fires and suppress enemy fires covering the obstacle.
- Mass direct and indirect fires to fix the enemy in position and to destroy any weapons that are able to bring fires on the breaching force.
- Control obscuring smoke to prevent enemy-observed direct and indirect fires. In a mechanized force, the support force is typically organized around tanks and improved tube-launched, optically tracked, wire-guided (TOW) vehicles (ITVs). However, the TF may also mass their air defense assets with the support force.

Suppression is critical for a successful breach; therefore, the first priority of force allocation is the support force. The commander allocates direct- and indirect-fire systems to achieve the support force ratio of 3:1 against the enemy for a deliberate attack. A ratio of 2.5:1 is required for a hasty attack. In short, an obstacle defended by a platoon requires a company team as a support force. An obstacle defended by a company requires at least two company teams in the support force.

The support force must rapidly occupy an attack-by-fire (ABF) position, seeking maximum protection from folds in the ground. It must follow a covered or concealed route to the support position; otherwise it may cross an enemy fire sack. Once the support force is deployed, it must rapidly develop and disseminate a fire plan designating sectors of fire and observation to ensure that all possible enemy positions are covered. Observation is particularly critical. Artillery observers with the support force initially bring indirect fires on enemy positions to fix them in place. They must also cue the artillery counterbattery system to prepare immediate counterbattery fires. The support force then adjusts the artillery-delivered obscuring smoke.

Breach Force. The breach force's principal mission is to create the lanes that enable the attacking force to pass through the obstacle and continue the attack. It is also responsible for marking the lanes along the lane's length and at entry points to speed passage of the assault and follow-on forces.

The breach force is a combined arms force. It includes engineers, breaching assets, and enough maneuver force to provide local security. The breach force also applies SOSR breaching fundamentals because it reduces the obstacle. Since the support force may not be in the position to effectively observe and suppress all enemy direct-fire systems, the breach force must be capable of providing suppressive fires. The breach force employs vehicle-mounted

smoke systems and smoke pots, if necessary, for self-defense and to cover lanes while the assault force is passing. The breach force secures itself from small threat forces providing short-range protection of the obstacle. After reducing the obstacle, the breach force may be required to secure a lodgement on the far side for deployment of the assault force into an assault formation.

The breach force must be able to deploy and begin reducing the obstacle as soon as enemy fires have been suppressed. It can expect enemy artillery fires within a matter of minutes.

The engineers with the breach force are allocated and organized by platoons with the breaching assets necessary to handle mines, nonexplosive obstacles, and small gaps. They are also capable of reducing the obstacle by finding local bypasses or existing lanes.

The commander allocates engineer platoons and equipment based on the number of lanes required. The breach force must be capable of creating a minimum of one lane for each assaulting company or two lanes for an assaulting TF. The commander should expect a 50-percent loss of mobility assets in close combat. Therefore, breaching a lane in close combat requires an engineer platoon in the breach force.

Once the breach force has reduced the obstacle and passed the assault force through, it will hand over the lane to follow-on units. At a minimum, the lanes must be marked and their locations and conditions reported to higher headquarters and follow-on units as prescribed in the unit's standing operating procedure (SOP).

Assault Force. The assault force's primary mission is to destroy or dislodge the enemy on the far side of the obstacle. It secures the far side by physical occupation in most deliberate or light-force breaching operations. The assault force may be tasked to assist the support force with suppression while the breach force reduces the obstacle.

If the obstacle is defended by only a small force, the assault force mission may be combined with the breach force mission. This simplifies command and control and provides more immediate combat power for security and suppression. The commander must ensure that sufficient combat power will remain after accomplishing all breaching element missions to overcome the defender in the assault.

Fire control measures are essential, since both the support and breach force are firing on the enemy when the assault force is committed. Suppression of overmatching enemy positions must continue and other enemy forces must remain fixed by fires until the enemy has been destroyed or dislodged. The assault force must assume control for direct fires on the assault objective as support force fires are lifted or shifted.

The assault force must be sufficient in size to seize objectives that eliminate fires on the breaching site. Combat power is allocated to the assault force to achieve a 3:1 ratio on the assault objective. In the deliberate breach, the assault force maneuvers as a separate force attacking through the breached obstacle. However, the breach and assault assets may maneuver as a single force when conducting an in-stride breach.

Mass

Breaching is conducted by rapidly applying concentrated force at a point to crack the obstacle and rupture the defense. Massed combat power is directed against an enemy weakness. The location selected for breaching depends largely on a weakness in the enemy defense where its covering fires are minimized. If the attacker cannot find a natural weakness, he creates one by fixing the majority of the defending force and isolating a small portion of it for attack. The isolated portion is then suppressed to eliminate effective fires on the breach forces. Smoke and terrain are used to assist in isolating the force under attack. Suppression requires the commander to mass enough overmatching direct fires to achieve at least a 3:1 firepower ratio.

Normally, a TF isolates and destroys motorized rifle platoons in succession, starting with the platoon identified as the easiest to overwhelm. In *Figure 2-1*, the TF commander employs a tank company team to fix two defending platoons and uses screening smoke to assist in isolating the platoon selected for attack. This platoon is suppressed by direct fires from a second tank company team (with more than a 3:1 ratio of fires) as well as by indirect fires.

The commander also masses his engineers and breaching equipment to reduce the obstacle. The breach force is organized and equipped to use several different reduction techniques in case the primary technique fails (a key vehicle is destroyed or casualties render dismounted engineers ineffective). Additional reduction assets are present to handle the unexpected. Normally, 50 percent more than required are positioned with the breach force.

Achieving necessary mass for the assault requires the breach force to open enough lanes through the obstacle to permit rapid passage and the buildup of forces on the far side. A mounted TF requires at least two lanes to allow two companies to pass simultaneously in column while minimizing lateral movement. A dismounted assault force requires one lane for each leading assault platoon. The tactical situation may require additional lanes to quickly pass a large assault force through the obstacle to achieve a sufficient combat power ratio.

The breach force masses reduction effort against the obstacle to ensure that it will successfully breach enough lanes. A mounted TF requires at least two lanes, but more will speed passage through the danger area (see *Figure 2-1*). The breach force will attempt as many simultaneous

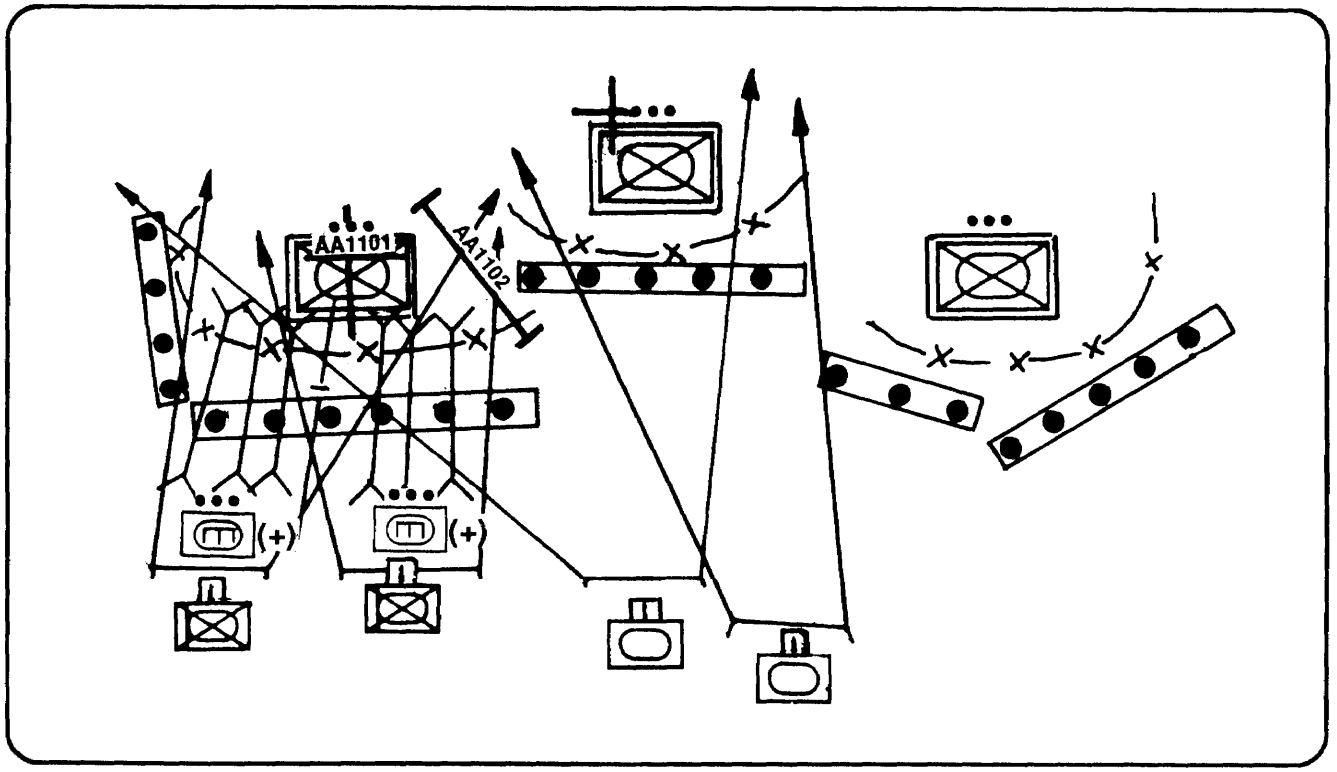

Figure 2-1. Achieving mass in the breach.

breaches as possible to ensure that at least two are successful and will continue to create more lanes within its capability. This normally results in the breach force simultaneously using a combination of mechanical and manual techniques.

To illustrate, an engineer platoon may use a pair of MICLICs as the primary technique to breach a minefield. As soon as the engineer platoon fires the second MICLIC, the engineer squads employ manual explosive techniques to push three additional lanes through the minefield. The lanes are spaced at least 100 meters apart to reduce artillery effects. The MICLIC firings will attract enemy artillery fires to the lane location, minimizing risk to the dismounted breach squads. If plow tanks are available, they would be plowing lanes either alongside or in place of the dismounted engineer squads.

The TF engineer must balance the need for massing his breaching assets to attack the current obstacle against the need for those same assets to attack subsequent obstacles. He must retain a breaching capability up through the assault of the defending position.

The principle of mass influences the selection of the breaching location of task organization of the support, breach, and assault forces and integration of the engineers in force movement or attack formations.

The need to generate enough mass strongly influences which echelon can conduct a breaching operation. A company team generally cannot simultaneously mass sufficient fires, breach the obstacle, and also assault the defending position unless it is a simple obstacle defended by no more than a squad. A TF has sufficient combat power to attack an obstacle defended by a company and is normally the echelon used to execute a breach. The brigade has sufficient combat power to attack a complex and well-defended obstacle but has difficulty deploying all its combat power within range. Normally, the brigade breaches by isolating a small segment of the defense (platoon or company) that a TF can then attack as the breaching echelon. If the obstacles and defenses are in-depth, mass is achieved by passing additional TFs through to continue the attack.

Synchronization

Breaching operations require precise synchronization of the SOSR breaching fundamentals by support, breach, and assault forces. Failure to synchronize effective suppression and obscuration with the obstacle reduction and assault can result in rapid, devastating losses of friendly troops in the obstacle or in the enemy's fire sack.

The commander cannot adequately synchronize his force's application of combat power in the short time available to him when he encounters an obstacle. The number of decisions that he must make while under fire in an unclear

situation will rapidly overwhelm him. Even with a force trained to execute a combined arms breach, synchronizing all necessary tasks remains a complex and difficult process.

The combined arms breach is a complex operation by nature. The SOSR breaching fundamentals must be applied by support, breach, and assault forces within a short time and distance. The support force masses its direct fires and controls indirect fires in concert with breach and assault force maneuver. The commander must employ smoke at just the right time and place to maximize its effectiveness or risk hampering his own target acquisition and command and control. The breach force must have the right breaching tool for the type of obstacle encountered. The engineer must be sensitive to premature exhaustion of breaching equipment needed to punch through subsequent obstacles. *Table 2-1* illustrates the complexity of the combined arms breach. It

Table 2-1. Breach complexity.

Action	Element	Time (Minutes)	Controlled By
Develop situation (Verifying boundary of enemy obstacle system)	Force in contact	M to 2	S3
Maneuver support force into overwatch position	Support	M +2 to 15	Support CDR
Maneuver assault force into covered assault position	Assault	M + 2 to 15	Assault CDR
Call for artillery	DS artillery	M + 2 to 15	FSO
Build smoke	Mortars	M + 5 to 10	FSO
Suppress enemy with direct fires	Support	M + 15 to 29	Support CDR
Suppress enemy with artillery fires	DS artillery	M + 10 to 29	FSO
Maintain smoke	DS artillery/mortars	M + 10 to 30	FSO
Maneuver breach force to breach location	Breach	M + 20 to 23	Breach CDR
Reduce obstacle Prepare two lanes	Breach	M + 23 to 30	Engineer leader
Place smoke pots	Breach	M + 23 to EOM	Breach CDR
Shift direct fires off of OBJ	Support	M + 29 to 30	Assault CDR
Shift indirect fires beyond OBJ	DS artillery	M + 29 to 30	Assault CDR
Assault to destroy enemy on far side of obstacle	Assault	M + 30 to 45	Assault CDR
Reorganize to continue mission	TF	M + 45 to EOM	S3

M = contact with obstacle

portrays the multiple, time-sensitive actions that typically occur. The rehearsal of these specific responsibilities allows the commander to synchronize the breaching operation.

The commander ensures synchronization through proper planning and force preparation. Fundamentals to achieve synchronization are—

- Detailed reverse planning.
- Clear subunit instructions.
- Effective command and control.
- A well-rehearsed force.

Synchronizing the combined arms breach begins by using the reverse planning process to ensure that actions at obstacles support actions on the objective. Planning a breach without regard to actions on the objective leads to disaster. A commander first decides how he must attack an objective to accomplish his mission. This decision drives where, how, and with what force he must support breach, and assault through the enemy's obstacles. The commander designs a scheme of maneuver for the breaching phase of the operation that achieves adequate suppression, obscuration, and security. The commander also creates sufficient lanes to rapidly project combat power on the objective, not just to the far side of the obstacle. Reverse planning gives purpose to a breaching plan that supports accomplishing the mission.

The commander begins planning by analyzing the objective and allocating forces to accomplish his mission. He then develops actions on the objective to employ his combat power. In *Figure 2-2*, a TF is conducting a deliberate attack to destroy an MRC in the defense. The commander believes seizing objective (OBJ) C to be decisive. This is the point from which reverse planning actions on the objective begins. The commander uses Team B to seize the initial foothold (OBJ B) into the enemy's defense; getting Team B to its objective becomes the focus of breach planning. The number and location of breaching lanes is driven by Team B's maneuver on OBJ B as the assault force. The commander now plans how team engineers, as the breach force, must maneuver during the breaching phase of the attack to reduce the obstacle. Supporting fires from Company A and Team D in ABF position 15 are planned to support both the breach

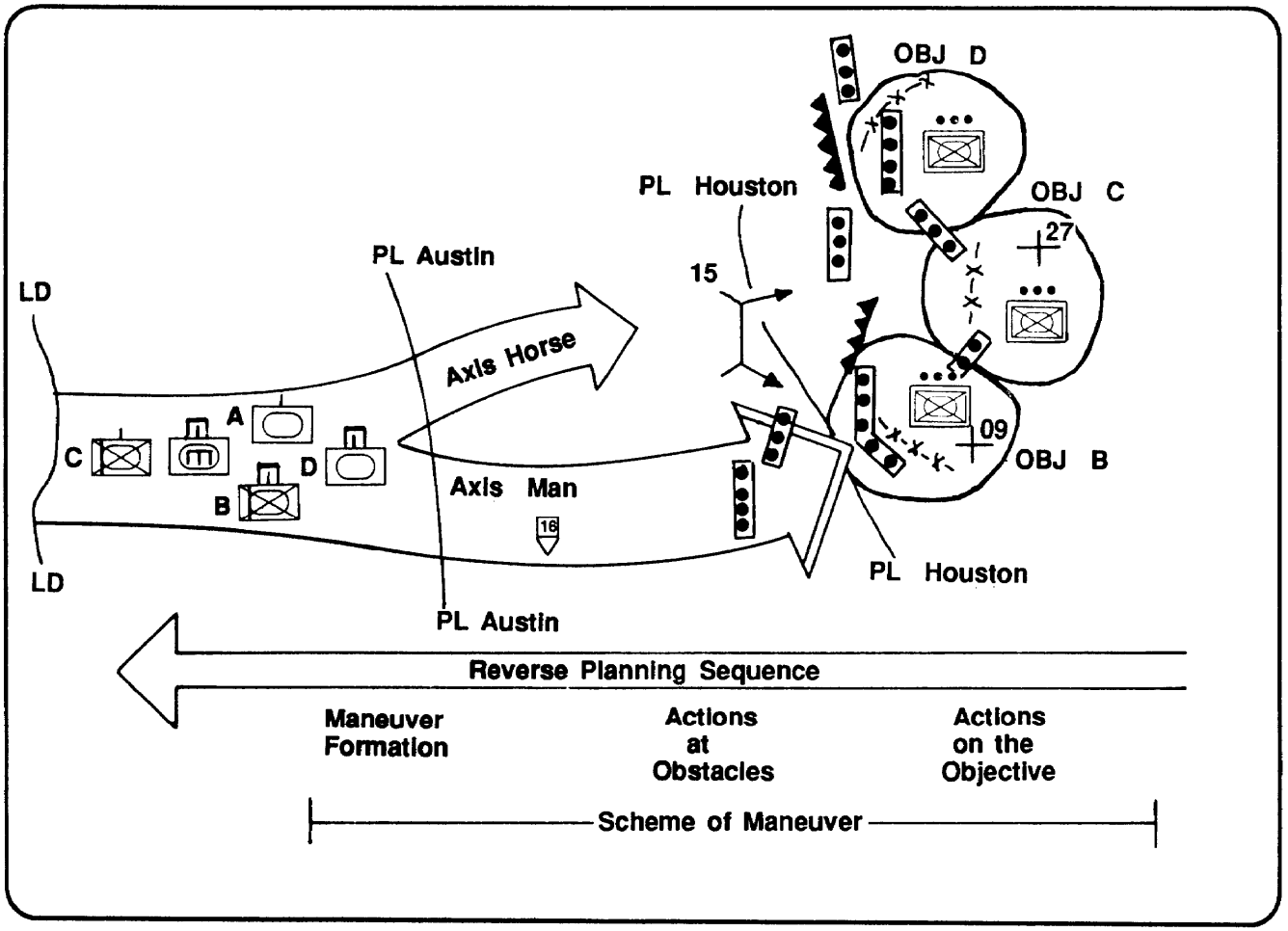

Figure 2-2. Task force deliberate breach plan.

and the attack on the objective. Lastly, reverse planning continues to drive the maneuver formation to ensure that forces are in the correct relative positions to accomplish their breaching roles and actions on the objective.

Subordinate units must clearly understand their missions, how they relate to the phases of the operation, and what role adjacent units play in the overall plan. The commander uses the execution matrix to relate subunit instructions to phases of the operation. The execution matrix is a superb synchronization tool. It lists subunit instructions sequentially in relation to key events or phases of the attack. The execution matrix provides subordinate commanders with an understanding of how their missions and those of adjacent units fit into the overall plan. More importantly, the matrix allows subordinates to better track the battle and coordinate their own maneuver with that of adjacent units. This is critical to achieving unity of effort between support, breach, and assault forces. *Figure 2-3* shows an example execution matrix for the scheme of maneuver in *Figure 2-2*.

Effective command and control is paramount to synchronization. Command and control is integrated into the plan through the use of maneuver control measures and the positioning of key leaders to see the battle. Maneuver control measures enable the commander to graphically convey his intent, scheme of maneuver, and subunit instructions on the map. Relating subunit actions to the terrain is critical to successful execution.

In *Figure 2-2*, the commander uses phase lines (PLs) to initiate the breach and actions on the objective; at PL Austin, the support force splits from the TF to occupy ABF position 15. The assault force occupies checkpoint (CP) 16 to prevent premature advance to the obstacle, breaching site congestion, and being engaged before lanes are cleared. An ABF position is designated to position the support force. The commander uses target reference points (TRPs) on obvious terrain features to orient, focus, and shift suppressive direct and indirect fires.

Key leaders must be able to see the battle in order to make informed decisions. Nowhere is this more true than during a breaching operation. The commander must position himself where he can best control the battle. Since effective suppression is the most critical event during breaching, the commander usually positions himself with the support force. This enables him to personally influence the control of fires and facilitate the necessary cross talk between breach and assault forces. The S3 may initially move with the breach force to track the progress of obstacle reduction and anticipate the commitment of the assault force. The commander who feels his personal influence is required with the breach or assault force must make a conscious effort to maintain track of the entire battle and not get focused on the breach or assault itself.

The most effective synchronization tool available to the commander is the rehearsal. The inherent complexity of a breaching operation makes rehearsals at every level essential to success. The commander must afford his subordinates the time to plan how they will execute their assigned missions and to rehearse that plan with their unit. A TF facilitates rehearsals by preparing rehearsal sites for use by company commanders and managing site usage. The TF commander must be sensitive to the impact TF-level rehearsals have on the subordinate planning and preparation. He must carefully choose the time and place of the rehearsal. Breaching operations are part of every rehearsal. Company teams rehearse immediate action breaching drills as well as their support, breach, and assault roles. TF rehearsals focus on synchronizing the maneuver of support, breach, and assault forces to achieve the SOSR breaching fundamentals and highlight key events that must be coordinated during breach execution.

MANEUVER

Breaching operations make maneuver possible in the face of enemy obstacle efforts. Since obstacles may be encountered anywhere, maneuver forces integrate breaching operations into all movement plans.

Types of Breaching Operations

In-stride breaching is a very rapid technique using standard actions on contact and on normal movement techniques. It consists of preplanned, well-trained, and well-rehearsed breaching actions and reduction procedures by predesignated combined arms elements. The in-stride breach takes advantage of surprise and initiative to get through the obstacle with a minimal loss of momentum. The force uses the in-stride breach against either weak defenders or very simple obstacles and executes it from the march. Subordinate forces always move configured to execute an in-stride breach with organic and task- organized assets (except when a deliberate breach is planned). *Chapter 3* discusses the in-stride breach.

The maneuver force attacks a stronger defense or more complex obstacle system with a deliberate breach. It is similar to a deliberate attack, requiring detailed knowledge of both the defense and the obstacle system. Subordinate elements are task organized to accomplish the breach, and they receive specific missions and objectives for it. The breach often requires securing the far side of the obstacle with an assault force before or during reduction. Deliberate breaching operations require significant planning and preparation. *Chapter 4* discusses the deliberate breach.

The maneuver force uses an assault breach to break a dismounted force through enemy protective obstacles onto the enemy position. Depending on the size and difficulty of the defensive obstacle system, the assault

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	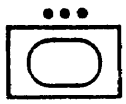		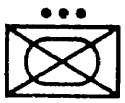	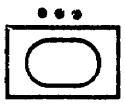	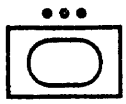	
	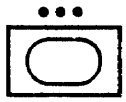	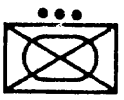	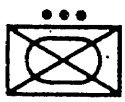	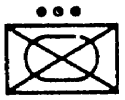		
	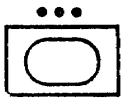	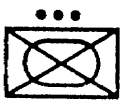	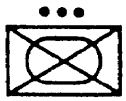			
						
Phase						
LD PL Austin	Echelon left Team D	Echelon right Team D	Trail Team Engineer	Lead TF	Trail Team D center	**Maneuver Formation**
PL Austin	Axis Horse OCC ABF 15	Axis Man CP 16	Trail Team B	Lead Axis Horse OCC ABF 15	Lead Axis Man	
Breach	ABF 15 Orient TRP 09 O/O 27	OCC CP 16 Identify breach	OCC PL Austin	ABF 15 Orient TRP 09	Lead Axis Man Breach 2 lanes	**Breach**
OBJ B	Shift fires TRP 27	O/O move thru breach Seize OBJ B	OCC CP 16 Identify breach	Shift fires TRP 27	Assist passage of Team B	
OBJ C	Shift fires to OBJ D	ABF on OBJ C Lift O/O	O/O move thru breach Seize OBJ C	OCC CP 16 Identify lanes	Assist passage of Company C	
OBJ D	Lift fires Consolidate ABF 15	Consolidate OBJ B	ABF on OBJ D Lift O/O	Seize OBJ D	Consolidate CP 16	**Action on OBJ**
Consolidate	ABF 15 Orient north	OBJ B Orient east	OBJ C Orient east	OBJ D Orient north-east	CP 16	

Figure 2-3. Execution matrix.

breaching procedure can be a variation of either deliberate or in-stride breaching techniques. The nature of enemy protective obstacles and the assault phase of an attack requires a separate type of breaching operation. The assault breach is outlined in *Chapter 5*.

Light and dismounted forces use covert breaching operations to pass secretly through obstacles. The covert breach also uses elements of the deliberate or in-stride breach. Surprise is the primary consideration that drives the commander to a covert breach. Covert breaching centers around using stealth to reduce the obstacle with support and assault forces only executing their mission if reduction is detected.

Movement

The commander executes a planned or unplanned breaching operation. If he has identified obstacles or the possibility of obstacles before his force moves, he develops a breaching plan. If the force stumbles across an unexpected obstacle, it will execute an unplanned breaching operation. This does NOT mean the force executes a spontaneous, unsynchronized breaching operation. It simply executes a rapid action on contact that it has planned and rehearsed for this eventuality.

Situation Clear. The commander carefully plans breaching operations when he anticipates encountering enemy defenses and obstacles. Before the move, the IPB process produces situation templates that are verified by R&S. The results of IPB feed into the decision-making process.

If insufficient obstacle information is available to prepare detailed breaching plans, the force will handle any obstacles encountered with in-stride breaching operations.

If information indicates a weak or weakly defended obstacle, the commander may elect to employ in-stride breaching techniques based on METT-T analysis and other force requirements. The support force must have at least a 3:1 fire advantage over the defender, and breaching assets with the breaching element must be sufficient to reduce the obstacle in less than 10 minutes.

If information indicates a strong or strongly defended obstacle, the commander will develop a detailed plan to employ a deliberate breaching operation. He bases this plan on METT-T analysis, which will significantly influence task organization. He assigns specific missions to subordinate units, and they conduct detailed rehearsals.

If the commander has planned to employ a deliberate breach against a known obstacle and the force encounters unexpected obstacles, he still employs the decision procedures for unplanned breaching against them.

Situation Unclear. Unplanned breaching occurs when the force is surprised. Information is either acquired from leading security elements or (worst case) by lead elements enmeshed in the obstacle. In either case, the force extricates itself and develops the situation to generate enough information for the commander to make a decision. If available, engineers with the engaged element conduct a rapid obstacle reconnaissance. Follow-on forces immediately move into ABF positions to help extricate the lead element and to allow rapid transition to a deliberate breach, if that is the commander's decision.

If the obstacle is weak or weakly defended, the lead company will attempt an in-stride breach during the development of the situation. Since the support force must have at least a 3:1 firepower advantage, the defender cannot be more than a platoon.

If the obstacle is weak or weakly defended but too strong for the lead company, the TF conducts an in-stride breach. In order to maintain a 3:1 advantage, the TF can only conduct an in-stride breach against a defending enemy company.

If the in-stride breach fails or information indicates the obstacle and defenses are too strong for a TF in-stride breach to overcome, the TF will halt and prepare a deliberate breach. If the TF has insufficient combat power, the brigade may instead isolate a breaching area and pass another TF through to conduct a deliberate breach.

Continued Movement. After the TF passes through the obstacle, the commander reorganizes the force and determines if the force has enough combat power to continue the attack. The commander also redistributes breaching assets for follow-on breaching operations. He may have to designate new support, breach, and assault forces. He reports the breached obstacle to higher echelon and follow-on units and hands the lanes over to follow-on forces. *Table 2-2* shows a typical type of breaching operation versus the size of the enemy force overmatching the obstacle. This does not take into account a maneuver force being able to isolate the battlefield.

PLANNING SEQUENCE

In summary, breach planning is driven by two fundamental thought processes—the command and engineer estimates. Both estimates begin by identifying enemy and friendly strengths and weaknesses. The engineer and command estimates merge in the development of the situation template. Scheme of maneuver, actions at obstacles, and scheme of engineer operations are all based on the same situation template. The command and engineer estimates use the sequence below to develop a breaching plan.

- Reverse planning begins with actions on the objective.
- Actions on the objective drive the size and composition of the assault force.
- Actions on the objective determine the number and location of lanes to be breached.

- Lane requirements and the type of obstacle drive the amount and type of mobility assets task organized to the breach force.
- Ability of the enemy's infantry to interfere with the breach determines whether the breaching site is to be secured by fires or by force.
- Ability of the enemy to mass fires at the breaching site determines the amount of suppression that is required. This determines the size of the support force.

The commander's intent merits special consideration in breach planning. His main effort must be clear and must be supported by the scheme of engineer operations. The engineer must plan to shift engineer forces and equipment consistent with the commander's main effort. The shift of engineer assets is particularly critical in successive breaching operations. Breach planning must be sensitive to the risk the commander is willing to accept in order to maintain mass and momentum.

Table 2-2. Types of breaching operations versus enemy size.

Maneuver Unit	Instride	Deliberate	Assault	Covert	Enemy Size Overwatching Obstacles
Brigade	X X	X ✓	X	X	MRB MRC MRP
Task Force	X	X ✓	X	X X	MRB MRC MRP
Company		X	X	X X	MRB MRC MRP

X - Type of breach normally conducted.
✓- Possible variation depending on scheme of maneuver.