

THE BRIGADE DELIBERATE BREACH

By Major Greg S. Kuhr and Major John F. Antal

For units undergoing Desert Storm preparation at the National Training Center (NTC), the greatest challenge was breaching Iraqi-style complex obstacles.

The obstacle developed at the NTC was about 500 meters (m) in depth. It consisted of a belt of buried anti-tank and anti-personnel mines, supplemented by a tank ditch and several wire obstacles. The infantry trench was approximately 200m behind the last minefield. The whole obstacle was supported by fighting positions for tanks and anti-tank weapon systems. Such a formidable defense, when properly employed by the enemy, can be penetrated only by a well orchestrated deliberate breaching effort.

This article describes how a brigade, as part of a heavy division deliberate attack, can synchronize a deliberate breach of a complex obstacle and trench line. While the model used in this study is based on Iraqi doctrine, the principles apply to all deliberate breaching operations.

The primary reference for this article is FM 90-13-1, *Combined Arms Breaching Operations*.¹ This manual identifies four fundamentals used for achieving synchronization during deliberate breaching operations:

- Detailed reverse planning.
- Clear sub-unit instructions.
- Effective command and control.
- Well rehearsed forces.

Reverse Planning

Planning for a deliberate breach begins with a thorough mission analysis. The commander and his staff must determine the following:

- Purpose of the higher headquarters' mission.
- Intent of commanders two echelons up.

- Specified, implied and essential tasks to be performed.
- Assets available.
- Constraints and restrictions.
- Degree of risk involved.
- Analysis of available time.

After completing the mission analysis, the commander should give a warning order, and give the staff his guidance. The staff then develops courses of action, analyzes each one, and presents them to the commander. After he makes his decision, the order is prepared and issued.

The reverse planning technique assists the staff during this process. Reverse planning will "ensure that actions at the obstacle support actions on the objective."² This technique requires that the commander and his staff have a full understanding of the organizations that are required for breaching operations.

Breaching Organization

Once the brigade commander has determined (by analyzing relative force ratios) that the breaching operation is beyond the capabilities of a single or reinforced battalion task force, he must task organize to conduct a brigade deliberate breach. The brigade should give specific support, breach and assault roles to appropriate subordinate task forces. Forces are allocated for each mission using a force ratio analysis.

The Support Force. The support force mission should be assigned to an armor heavy task force. The mission of the support force is to destroy the enemy's ability to interfere with the obstacle reduction operation. It does this by winning the direct fire battle over the breaching area, controlling



An armor unit practices breaching operations at the NTC. Complex obstacles, when properly employed by the enemy, can be penetrated only by a well orchestrated effort (U.S. Army photo).

indirect suppressive fires, and obscuring the breach site from enemy observation. The support force also secures the area of penetration with fire prior to deployment of the breach force. (While securing the breach site by infiltrating into the trench is an option, it is generally not feasible because of the depth and complexity of such obstacles).

The support force should deploy into an attack-by-fire position that is within the range of its direct fire suppressive weapons. For tanks and infantry fighting vehicles, this means that the support force must be within 1,500m to 1,800m of the trench line. To accomplish this, the support force must attack using a "creeping" overwatch from successive attack-by-fire positions starting at 3,000m. Once the breach force is deployed, the support force must continue to isolate the breach site from enemy fires.

The Breach Force. The breach force mission should be assigned to a balanced or infantry-heavy task force. The majority of the brigade's breaching equipment should be assigned to this force. The mission of this task force is to provide secure passage lanes for the brigade assault force and clear the enemy trench line. The force must be a combined arms team capable of executing all of the breaching fundamentals: suppression, obscuration, security and reduction (SOSR). When faced with a complex obstacle defended by an infantry trench line, the breach force is organized into the following sub-units:

- A support team to provide local suppression.
- A breach team to reduce the obstacle.
- An assault team to secure the breach site by attacking the enemy in the trench line, and blocking possible enemy armored counterattacks.

Depending on the availability of forces, the task force may designate company teams to play more than one role in the breaching operation. For example, a portion of the support team may be designated as an assault team once a breach lane is established. (To avoid confusion in terms, refer to all of the breach force's subunits as teams.)

The breach team is built around breaching assets (armor and engineer). Armored breaching assets (mine-roller tanks, mine-plow tanks, combat engineer vehicles, armored vehicle launched bridges, and armored combat earthmovers) are critical because of their survivability. Explosive breaching using mine clearing line charges (MICLICs), and manual breaching done by sappers and designated infantry units, complement the armored breach. The assault team should be infantry-heavy in order to clear a defended trench line. The support team should be balanced with armor and mechanized infantry in order to suppress and destroy all of the enemy's direct fire systems.

The Assault Force. The assault force is either

balanced or infantry heavy. The brigade may designate one task force as the breach/assault force if the brigade has only two task forces. The mission of the assault force is to pass through the breach lanes and seize defensible terrain 1,000m to 1,500m on the enemy side of the penetration. The assault force then defends against enemy counterattacks, giving the brigade time to pass forward the support force or other follow-on forces. These follow-on forces continue on to seize the brigade objective.

Other task forces should be designated by division headquarters to exploit brigade penetrations of the enemy obstacle belt. These forces should have an on-order mission to be the division main effort once a brigade breach site is secured. These follow-on forces maintain the tempo of the attack by passing through the breach and seizing the division objective.

Reverse Planning Sequence

Deliberate breach planning should take place in the following order:

(1) Actions on the objective: The "who, what, where and when" must be determined for the far side of the enemy obstacle and trench line. This will focus the size, composition and missions of the assault force and the number of breaching lanes required to support it.

(2) Identify potential enemy vulnerabilities: A METT-T (mission, enemy, terrain, troops available, and time) analysis, based on the situation template, should be conducted to determine where the enemy may be vulnerable to attack. Typical opportunities include sites lacking protection of the enemy's mobile reserves, enemy positions lacking adjacent unit supporting fires, seams between units, and defensive positions supported by weak obstacle systems.

(3) Select breach sites: Primary and alternate sites are planned, then finalized after considering the results of silent breach teams, direct reconnaissance, or the support force commander's observations. The brigade must allocate sufficient company/teams to the breaching task force to clear lanes through the obstacle belt, fight and win the trench battle, and hold the breach site until the assault force can pass through. The breach force should organize its company/teams into breach, support and assault teams.

(4) Determine support force requirements: The support force is balanced with long-range anti-tank systems and infantry weapons that will enable it to win the direct fire battle at the breach site. The force should use a combination of tank fires and heavy machine gun fire to suppress

enemy infantry in the trench system. The same fires will also isolate the breach sites once the breach force moves forward to conduct the breach.

(5) Development of scheme of maneuver: Commanders and staffs develop task organizations, unit missions, and other plans to support the requirements identified above.

Clear Subunit Instructions

Subunit commanders must understand exactly what is expected of their forces. If the support force does not win the direct fire battle over the point of penetration, the breach force will be jeopardized. Likewise, if the assault force is committed prior to the establishment of secure lanes, it could dissipate its combat power by having to fight through the obstacle lanes. Each subordinate commander must understand the interdependence of the breach, support and assault forces (and teams). They must understand each force's mission and how each successful mission develops the commander's decision making. Clear subunit instructions include the following:

Phase	Co-located Command Groups
1. Movement to the obstacle	Brigade command group and support force commander co-locate in vicinity of support force's attack-by-fire position.
2. Breach of the obstacle	Brigade command group and breach force commander co-locate to observe breach lanes.
3. Assault the defending enemy	Brigade command group accompanies assault force commander through the obstacle.
4. Continue the attack	Brigade command group accompanies the main effort.

These instructions must define the measure of success. For example, the support force is successful when the enemy can no longer place effective anti-tank fires on the breach sites because of destruction, suppression or obscuration. The breach force is successful when it has at least one secure lane through the enemy obstacle belt and has cleared the trench line in the near vicinity of the lane. The assault force is successful when it has destroyed the enemy's ability to place effective anti-tank fires on the intermediate objective on the far side of the obstacle.

The instructions must limit the responsibility of each subunit. The support force's suppression and obscuration mission should be limited to a specific breaching area. This enables the force to achieve

sufficient mass to overwhelm the enemy's direct fire systems at the breach point. The breach force should be limited to clearing two lanes—the obstacle belt and the trench line—all within a well defined breach objective. The assault force should be limited to racing through the cleared lane and seizing a defensible terrain feature on the far side of the enemy trench line.

Lastly, the subunit instructions must clearly address the timing of the operation. This timing is determined more by events than by designated times. The breach operation must be quick, thereby limiting the force's exposure to enemy fires. The plan must address the timing of obscuration fires to preclude interference with suppressive fires. The breach and assault forces must be committed as early as possible, but not before the enemy's anti-tank fires are rendered ineffective at the breach site.

Effective Command and Control

Command. Effective command is critical to successful breaching operations. For a deliberate breaching operation, the commander must be far enough forward to see the breach sites. His command organization can play a vital role in this effort.

Field Manual 71-3, *The Armored and Mechanized Infantry Brigade*, stipulates that "the command group moves to a position that allows the commander to observe the battlefield, issue appropriate orders at critical times, and influence the battle with his personal presence."³ For a brigade deliberate breach, that position is clearly one that gives him a good view of the planned breach site. Additionally, since this operation involves several units passing through each other, the co-location of command groups is critical. Here is the recommended co-location of command groups for each phase:

Depending on the location of the task force commander, the task force tactical operations center (TOC) may substitute for the task force command group. Terrain, communications and security must also be considered when deciding the best way to co-locate command groups.

While the brigade command group is co-located with the task force command groups, the brigade tactical command post (TAC) has four primary missions:

- Assist in the implementation of the commander's decisions.
- Serve as a backup should the brigade command group become ineffective.
- Control movement of units into the crossing area.

- Continue to synchronize combat operations, combat support, and combat service support for the close fight.

Traffic Control. The crossing area should be defined by release lines on each side of the obstacle. The crossing area is initially limited to the friendly side, and is extended as the assault force secures the far side. A far side release line should be planned to provide sufficient space for the assaulting task forces to deploy into attack formations.

Until the brigade has secured its objective, it must manage unit movement into the crossing area and across the obstacle. Movement control is passed to the brigade main command post prior to passage of the battalion task force field trains or follow-on brigades. Before the main command post can accept control of the crossing area, it must be in a position to effectively control the area and communicate with units.

During the first three phases of the operation, brigade main command post missions include executing the deep operation, tracking the close fight, coordinating combat support and combat service support requirements, and planning future operations. When the objective is secured, control of crossing operations for the remainder of the brigade should pass from the brigade TAC to the main command post.

A brigade crossing plan must be developed to control this part of the operation. The brigade S-4, assisted by the MP platoon leader, can organize a temporary traffic control cell at the brigade TAC to control movement through the crossing area. Once control is passed to the brigade main, this traffic control cell can relocate to the main command post.

The brigade commander should designate an officer, initially the brigade S-3, then the XO, to control the movement of forces through the crossing area. The brigade plan should detail the transfer of obstacle lane control from the breach force to the crossing area commander. This delegation of responsibility to a crossing area commander frees the brigade commander to concentrate on forward battlefield leadership. The crossing area commander controls:

- Movement and positioning of all elements transiting or occupying positions within the crossing area.
- Security elements (i.e., maneuver, air defense) at crossing sites.
- Support forces such as engineers, military police, and chemical units within the crossing area.

If the brigade is supported by an engineer

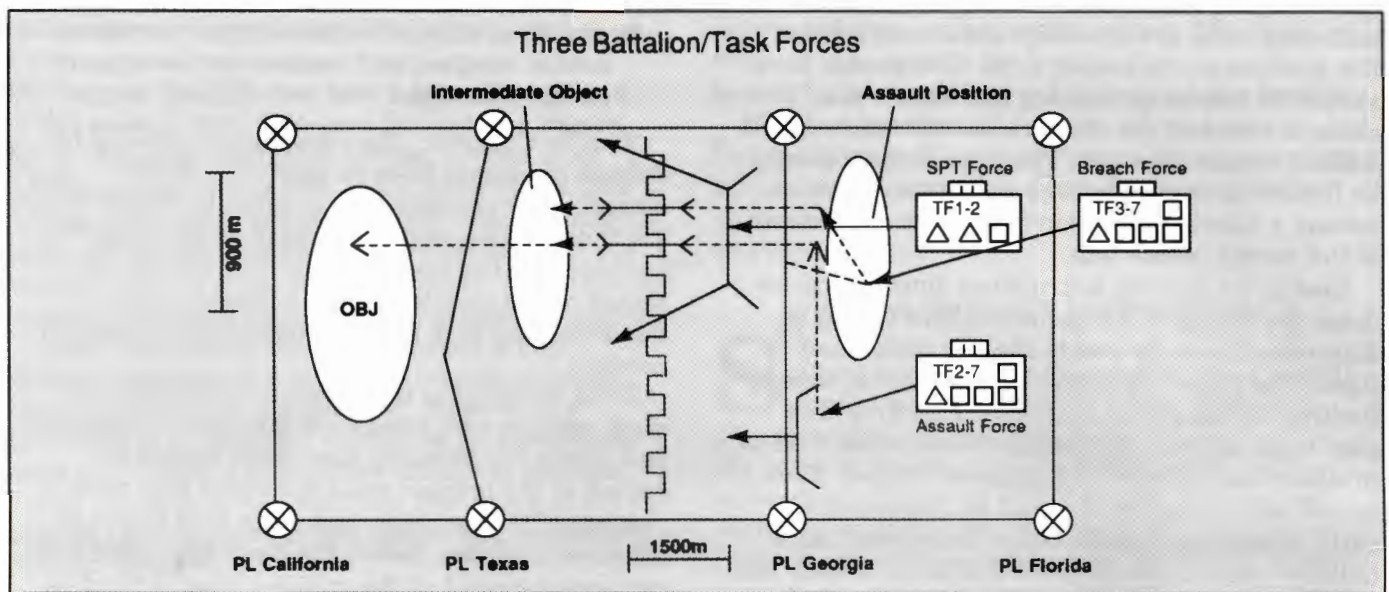


Figure 1

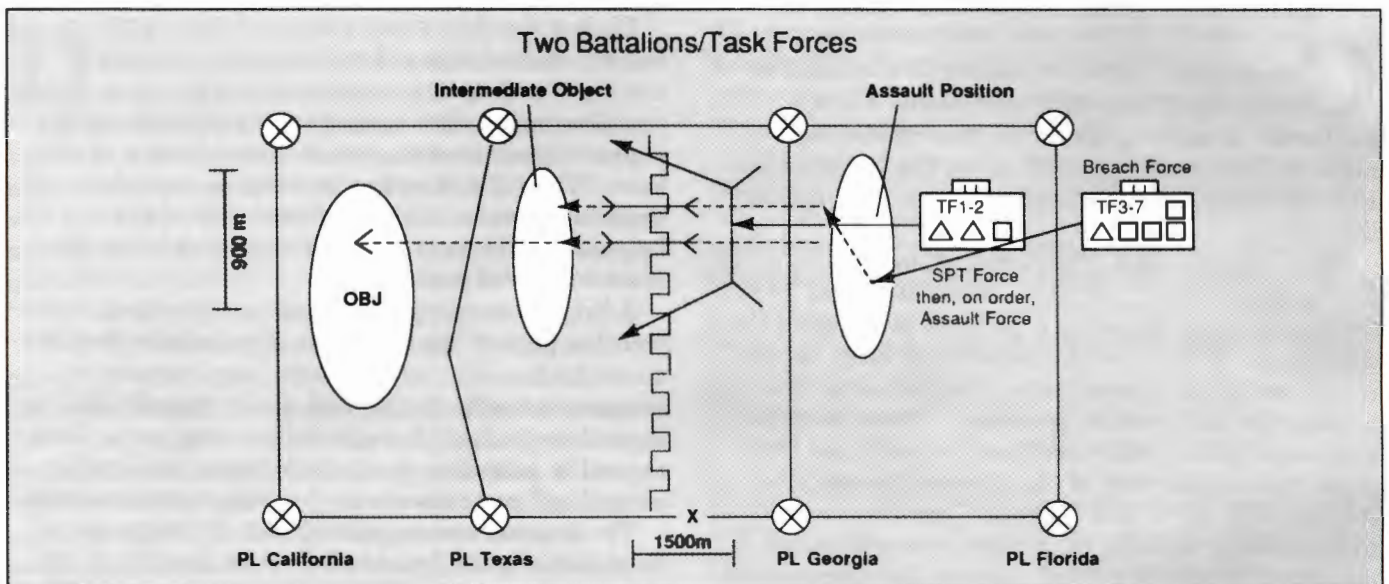


Figure 2

battalion, the engineer battalion commander should be designated as the crossing area engineer. He reports directly to the crossing area commander and is responsible for:

- Developing an engineer support plan, which recommends the combined arms battle drills needed to reduce the obstacle, allocation of armor and engineer breaching equipment, lane marking, and plans for improving/increasing assault lanes.
- Tracking the progress of obstacle reduction and advising the commander when changes in the plan are needed.
- (On behalf of the crossing area commander), assuming control of breach sites from the

breach force commander as soon as possible after the sites are secured. Duties include keeping the lanes open, improving the lanes, and advising the crossing area commander of their condition.

Initially, the breach force is responsible for traffic control through the breach sites. The breach force must designate a breach site commander for each lane to control movement through the lanes. Site commanders should be company executive officers or platoon leaders whose responsibilities include:

- Maintaining cleared and well marked lanes.
- Establishing traffic control posts (TCPs) to guide units through the lanes.
- Reporting any lane closures to the breach

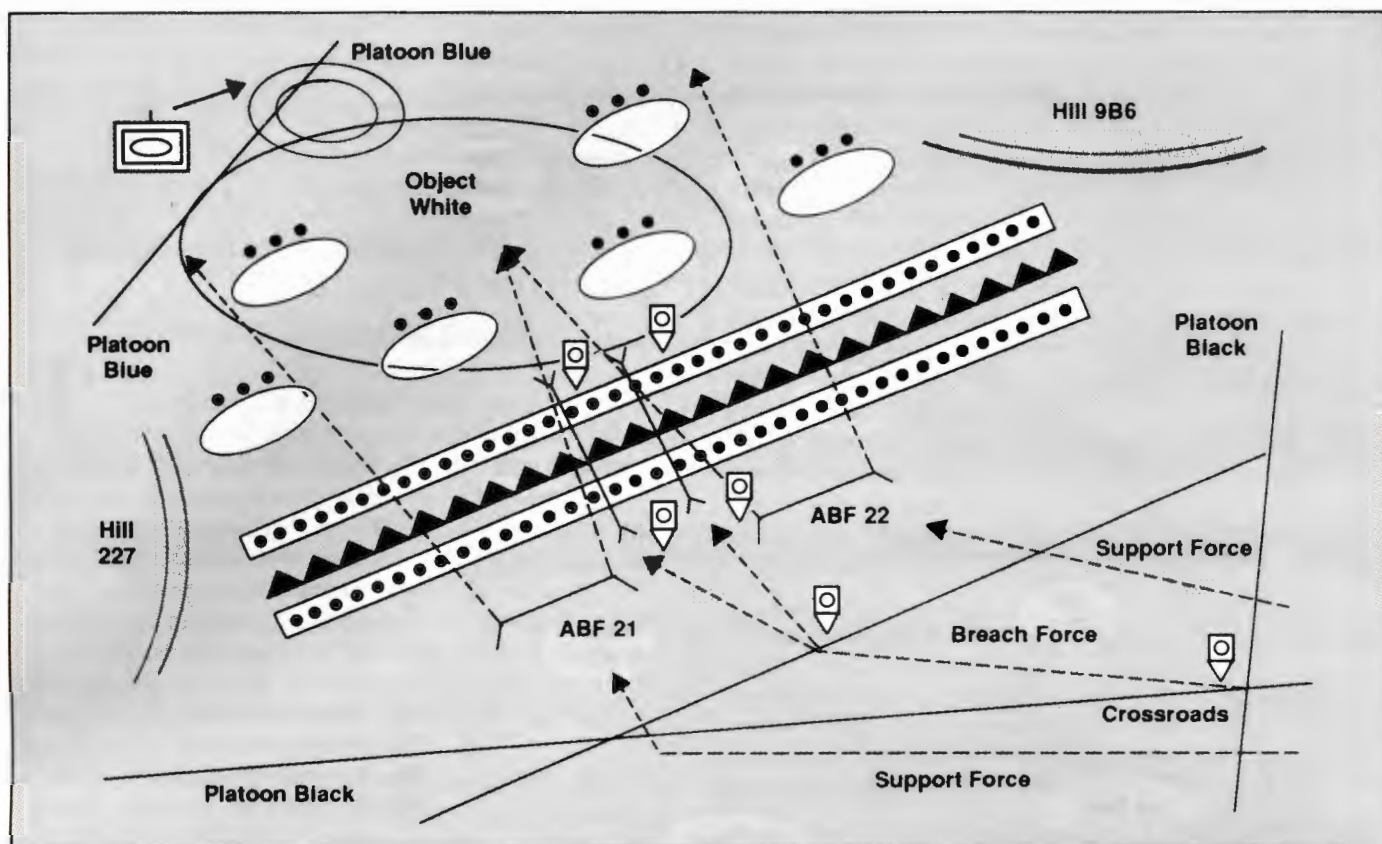


Figure 3

team commander (who in turn reports to the breach force commander).

The crossing area engineer should assume control of the breach sites as early as possible in order to begin lane improvements. Military police should quickly assume traffic control responsibilities from the breach force to facilitate an increase in the number of TCPs and to improve necessary route markings. Once relieved of these duties, the breach force can consolidate and prepare for follow-on missions.

Graphic Control Measures. Graphic control measures are established to facilitate cooperation between units without imposing unnecessary restrictions on the freedom of subordinate unit leaders. The minimum graphic control measures can be displayed three ways: the brigade operations overlay showing the overall brigade concept, a large-scale sketch to graphically portray actions at the obstacle, and a movement control overlay for traffic control within the brigade zone. Here are some examples of each of these:

Figures 1 and 2 show the minimum information to include on the brigade operations overlay:

- A direction of attack or axis of advance from the assembly area to the obstacle and beyond for the support, breach and assault forces.
- Location of assault positions where the assault

force or other task forces will locate prior to commitment through the obstacle lanes.

- Primary planned breach lanes.
- Location of the support force attack-by-fire positions, with arrows extending over the range and direction of the direct fire systems.
- Intermediate and final objectives for the assault force and for any follow-on task forces.
- Phase lines and release lines.

If the brigade has a contingency plan to attack in a different location, the same graphics are required, but are drawn with dashed lines.

Figure 3 depicts the brigade's plan for actions at the obstacle. This is accomplished with a sketch map of the obstacle area. It's not possible to show this level of detail on a 1:50,000 overlay. At a minimum, the sketch should have the following information:

- Approximate locations of recognizable terrain features in the area.
- Location of enemy platoons in the main defensive belt and any reserve forces which could interfere with the breaching operation.
- Planned breach lanes.
- Support force attack-by-fire (ABF) positions, with arrows showing the range and direction

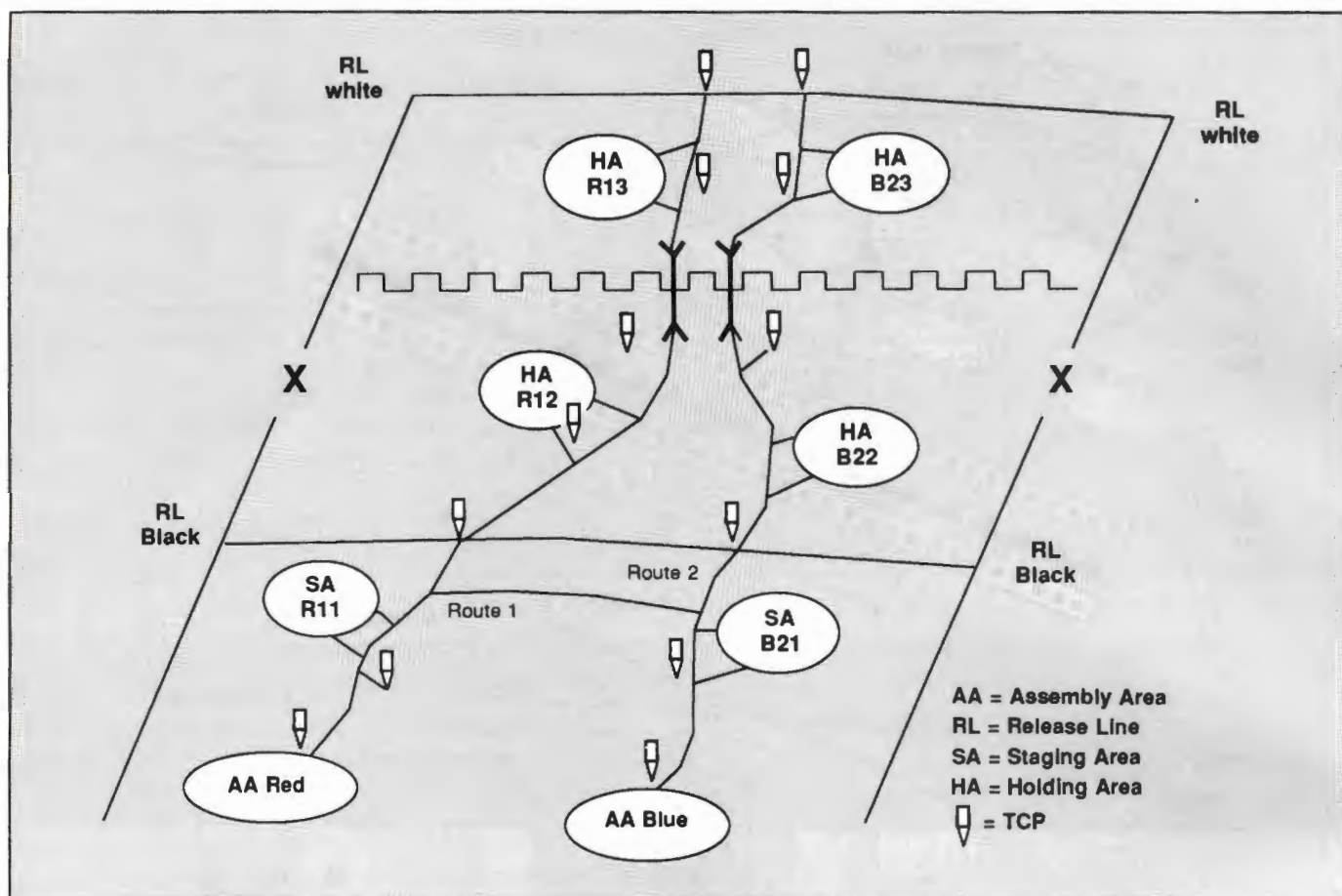


Figure 4

of suppressive fires.

- Routes for the support, breach and assault forces, to and through the obstacle.
- All objectives for the breach elements.
- Location of planned TCPs.
- Phase lines and release lines.

Figure 4 shows a movement control plan through the brigade's zone. As a minimum, this 1:50,000 overlay should have routes, holding and staging areas, phase lines and/or release lines, TCPs, and initial assembly areas.

Additionally, the brigade must identify designated routes, near and far signals to guide units to the lanes, and lane limits. Initial markings must be placed rapidly and should be improved and maintained as soon as the situation permits.

Control measures are also used to maximize the effectiveness of direct and indirect fires in support of maneuver and to reduce the possibility of fratricide. The brigade deliberate breach plan must include the following control measures for fires:

- Priority of fires. Who has it during each phase, who will decide to change it, and under what criteria?

- Coordinated fire line (CFL). Brigade CFLs will be used to protect units conducting forward passage of lines. These CFLs should be included on the operations overlay. The plan must note when the CFL changes, and who makes that decision.

- Hand-over line. The hand-over line will identify at what point the assault force takes over responsibility for the direct fire battle. It will be identified on the brigade operations overlay as a phase line, and can coincide with the far side release line.

- Target reference point (TRP). The brigade should have a standard methodology for designating TRPs. Subordinate unit commanders must coordinate the specific placement of TRPs to ensure that their fires are supportive.

- Smoke. Obscuration is a critical component of the breach. Too much or too little smoke can hinder the breaching effort. Smoke must be carefully controlled and coordinated to ensure that it supports the breaching effort. The chemical officer, fire support officer, brigade S-3, and engineer are the key planners. When planning smoke, consider the following:

- designate smoke targets for indirect fire systems, and use smoke generators for smoke objectives.
- identify who controls the smoke.
- coordinate the delivery systems (artillery, mortars, generators, vehicle engine exhaust smoke systems).
- determine effects of weather.

Well-Rehearsed Force

The purpose of a combat rehearsal is to improve agility, ensure synchronization, foster initiative, improve the depth of the force, and reinforce the scheme of maneuver and fire plan.

Rehearsals should "identify problem areas and contingency actions, determine movement reaction times, enhance coordination and refine the plan."⁴ Rehearsals should be conducted for "actions critical to the accomplishment of the mission to ensure the unit can accomplish these actions given its state of training, the orders issued, and the terrain and weather conditions expected."⁵

When conducting a rehearsal, the commander should emphasize key events that trigger friendly actions. Rehearse both fire support and maneuver actions. The rehearsal becomes a tool that the commander can use to reinforce understanding of the plan, and help subordinate commanders visualize his intent. This assists subordinates in understanding what they are to do when the battle does not go according to plan.

The two essential ingredients of a brigade rehearsal are training down to the company commander level and carefully reviewing the details of the operation. It's recommended that the brigade conduct a minimum of two rehearsals. The first is a key leader rehearsal with a walk-through on a terrain model. The second is a full-scale, drive-through rehearsal which includes the company commanders. The brigade staff must prepare for the rehearsals by developing a script that describes the sequence of actions. An action-reaction format should be used, with the S-2 acting in the role of the enemy. While rehearsal techniques are beyond the scope of this article, engineer leaders should pursue combat rehearsals as a means of improving synchronization.

Conclusion

The Army must be able to bust through complex obstacle systems. For years, in-stride breaching techniques have been emphasized as a way of maintaining momentum and the initiative.

However, when an in-stride breach fails, or

analysis of the force ratios confirms an enemy situation is beyond the capability of a subordinate unit⁶, a deliberate breach must be conducted.

The four fundamentals outlined in this article will give the engineer officer a solid foundation for successful breaching operations. Detailed reverse planning focuses the force on mission accomplishment. Clear subunit instructions and effective command and control are essential to coordinating the actions of the support, breach, and assault forces—thus minimizing casualties. Lastly, a well-rehearsed force will have the agility to adapt to unexpected battlefield conditions.

By following these breaching fundamentals, engineer leaders and maneuver commanders can place combat power at the decisive point, and maximize their chances for a successful brigade deliberate breach.



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Notes:

¹Department of the Army, Field Manual 90-13-1, Combined Arms Breaching Operations. (Washington: U.S. Army, 28 February 1991).

²Ibid, pp. 2-7.

³Department of the Army, Field Manual 71-3, The Armored and Mechanized Infantry Brigade. (Washington: U.S. Army, May 1988), p. 2-5.

⁴Department of the Army, Field Manual 71-2, The Tank and Mechanized Infantry Battalion Task Force. (Washington: U.S. Government Printing Office, September, 1988), p. 2-21, 2-22.

⁵Department of the Army, Field Manual 71-1, The Tank and Mechanized Infantry Company Team. (Washington: U.S. Government Printing Office, September, 1988) p. 2-14.

⁶Department of the Army, Field Manual 90-13-1, Combined Arms Breaching Operations. (Washington: U.S. Army, 28 February, 1991), p. 4-1.