
Chapter 7

Situational Obstacles

This chapter outlines the procedures to determine the requirements for situational obstacles and to plan, prepare, and execute them. Situational obstacles are obstacles that units plan, and possibly prepare, before starting an operation; however, they do not execute them unless specific criteria are met. Unlike directed or reserve obstacles, a situational obstacle may never be executed. Normally, units plan several situational obstacles that rely on the same assets for emplacement. This allows the commander to shift scarce assets to the location where he needs them the most, based on the situation.

EMPLOYMENT PRINCIPLES

Commanders and staffs consider the following basic principles when planning, preparing, and executing situational obstacles:

- Identify the need.
- Plan for appropriate resources.
- Integrate the obstacle with friendly fires.
- Plan the obstacle.
- Identify obstacle execution triggers.
- Withhold execution of the obstacle until it is needed.

IDENTIFY THE NEED

The commander anticipates situations that require him to modify the maneuver and fire plans to defeat the threat, and he considers the use of situational obstacles to support these modifications. He can use situational obstacles as a combat multiplier for branch plans or sequels since they enable him to use economy-of-force measures. The commander can use situational obstacles to—

- Attack an enemy vulnerability.
- Exploit success.
- Separate follow-on enemy forces.
- Provide flank protection.

PLAN FOR RESOURCES

Obstacle emplacement is normally resource intensive. By their very nature, situational obstacles must be able to be installed quickly but still achieve the desired obstacle effect. Units normally use SCATMINES for situational obstacles, but they may use any type of individual obstacle. Staffs consider that emplacing the obstacle may require multiple assets. For example, using air Volcano requires helicopter transport to emplace the obstacle, soldiers to load the

Volcano mine canisters, and enough canisters to achieve the desired effect on the target.

INTEGRATE WITH FRIENDLY FIRES

Like any obstacle, units integrate situational obstacles into the fire plan. Since obstacle execution depends on development of an expected situation, integrating the obstacles with fires is difficult. Commanders and staffs consider where they can employ situational obstacles and ensure that the combination of fires and obstacles are sufficient to achieve the obstacle effect. Without fires, the obstacle may interfere with the enemy, but he can breach the obstacle at will. For example, using SCATMINES, without fires, to delay repairs to an enemy airfield will hinder the repairs; however, the enemy can identify and clear the mines without a major risk.

PLAN THE OBSTACLES

Situational obstacles are not used to attack targets of opportunity. Commanders and staffs identify them during the planning process. The time required to commit the asset and integrate the obstacle with fires normally exceeds the window of opportunity against a target. Also, the use of obstacle emplacement assets (such as ADAM/RAAM) against targets of opportunity may waste a valuable obstacle asset that the commander will need later during the battle.

IDENTIFY EXECUTION TRIGGERS

Situational obstacles are triggered based on friendly actions, enemy actions, or a combination of both. For example, the commitment of the friendly reserve may trigger the execution of situational obstacles to separate enemy forces. Another example of a situational obstacle trigger is identification of the enemy attempting to reposition during a

DATK. Finally, the commitment of forces along an AA and enemy movement to attack an assailable flank is an example of a combination of friendly and enemy actions that can trigger a situational obstacle (see *Figure 7-1*).

WITHHOLD EXECUTION UNTIL NEEDED

The commander withholds execution of a situational obstacle until the obstacle effect is required. Commanders and staffs consider that the obstacle assets, once committed, are no longer available to support other missions. They also consider that SCATMINES have a SD time. Emplacing the obstacle too early may result in self-destruction of the mines before the enemy arrives.

SITUATIONAL OBSTACLES IN THE DEFENSE

In the defense, the focus of situational obstacles is to help negate the attacker's initial advantage (see *Figure 7-2, page 7-4*). Some possible uses of situational obstacles in the defense are—

- Reinforce or repair tactical obstacles already emplaced.
- Emplace obstacles where previously there were none.
- Defeat penetrations in the rear area.
- Protect the flanks of CATK forces.
- Separate attacking enemy echelons.
- Reinforce existing (natural or cultural) obstacles on AAs or MCs used by the enemy.
- Shape the battlefield for the deep battle.

SITUATIONAL OBSTACLES IN THE OFFENSE

In the offense, the commander uses the flexibility of situational obstacles to help reduce risk, maintain the initiative, and preserve

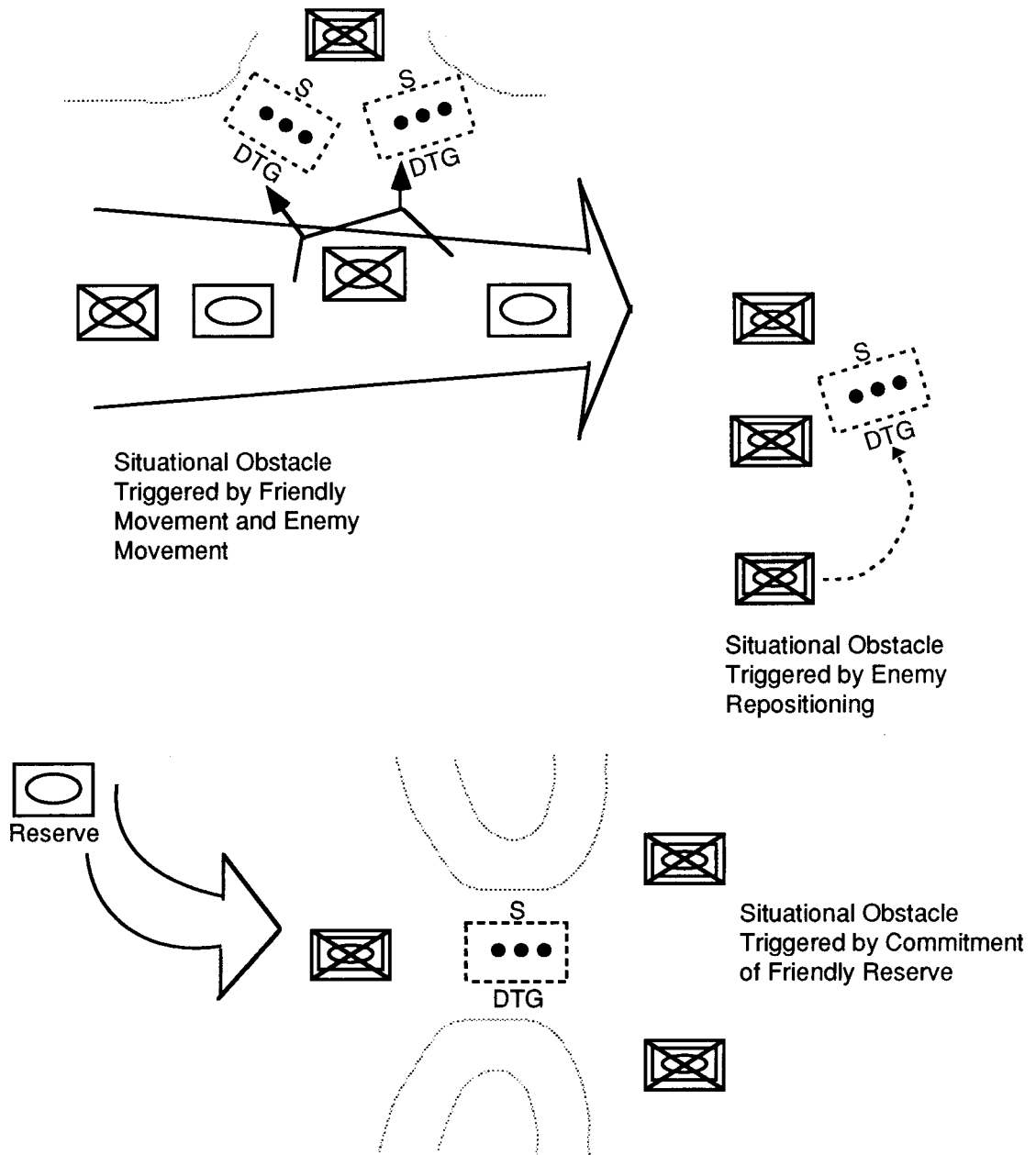


Figure 7-1. Situational obstacle event triggers.

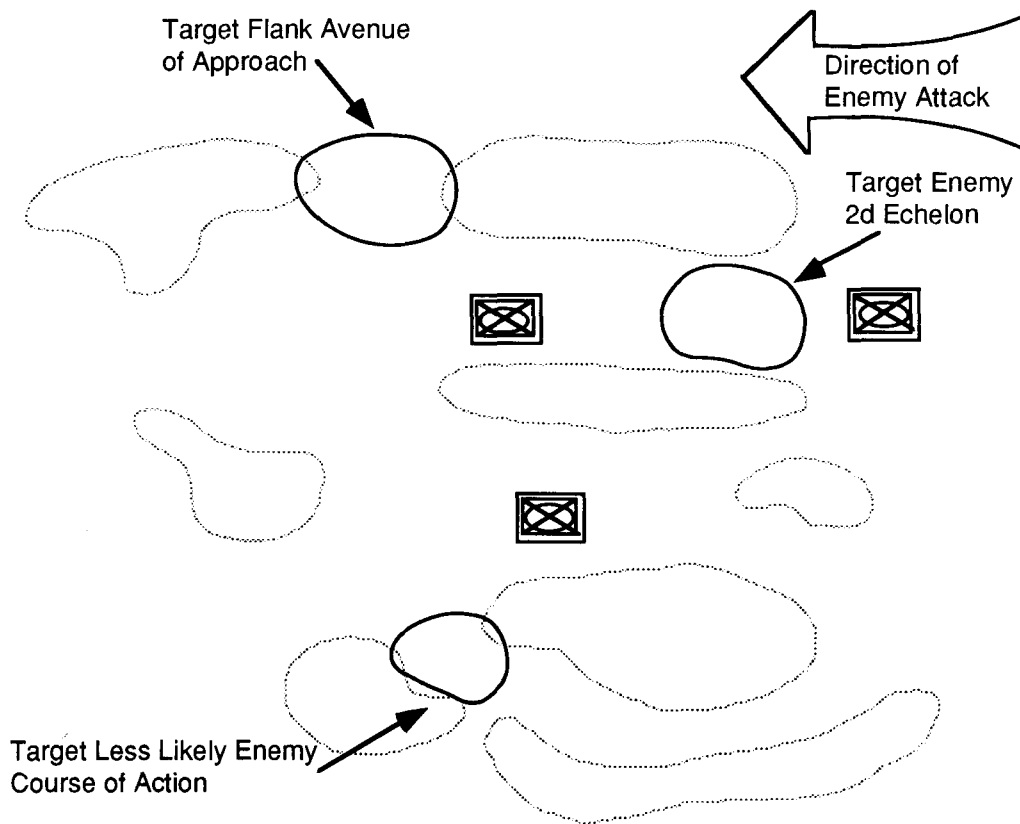


Figure 7-2. Situation obstacles in defense.

freedom of action (see *Figure 7-3*). Some possible uses for situational obstacles in the offense are—

- Interdict commitment of enemy reserves in conjunction with air interdiction (AI), close air support (CAS), or JAATs.
- Assist ground forces (follow and support) in defeating enemy CATKs threatening flanks or penetration.
- Obstruct enemy withdrawal or escape routes in conjunction with enveloping the force.
- Isolate adjacent forces from influencing or reinforcing the main effort.
- Transition to a hasty defense to allow force buildup or passage of fresh forces.

SITUATIONAL OBSTACLE PLANNING

The staff or the commander normally identifies the need for a situational obstacle during analysis of the COAs. However, the staff gathers information or conducts earlier planning which impacts on situational obstacle planning.

MISSION ANALYSIS

The staff gathers facts and develops assumptions during mission analysis. As part of the facts and assumptions, it—

- Determines the unit's capability to collect intelligence.
- Considers the friendly assets that the unit can use to emplace situational obstacles.

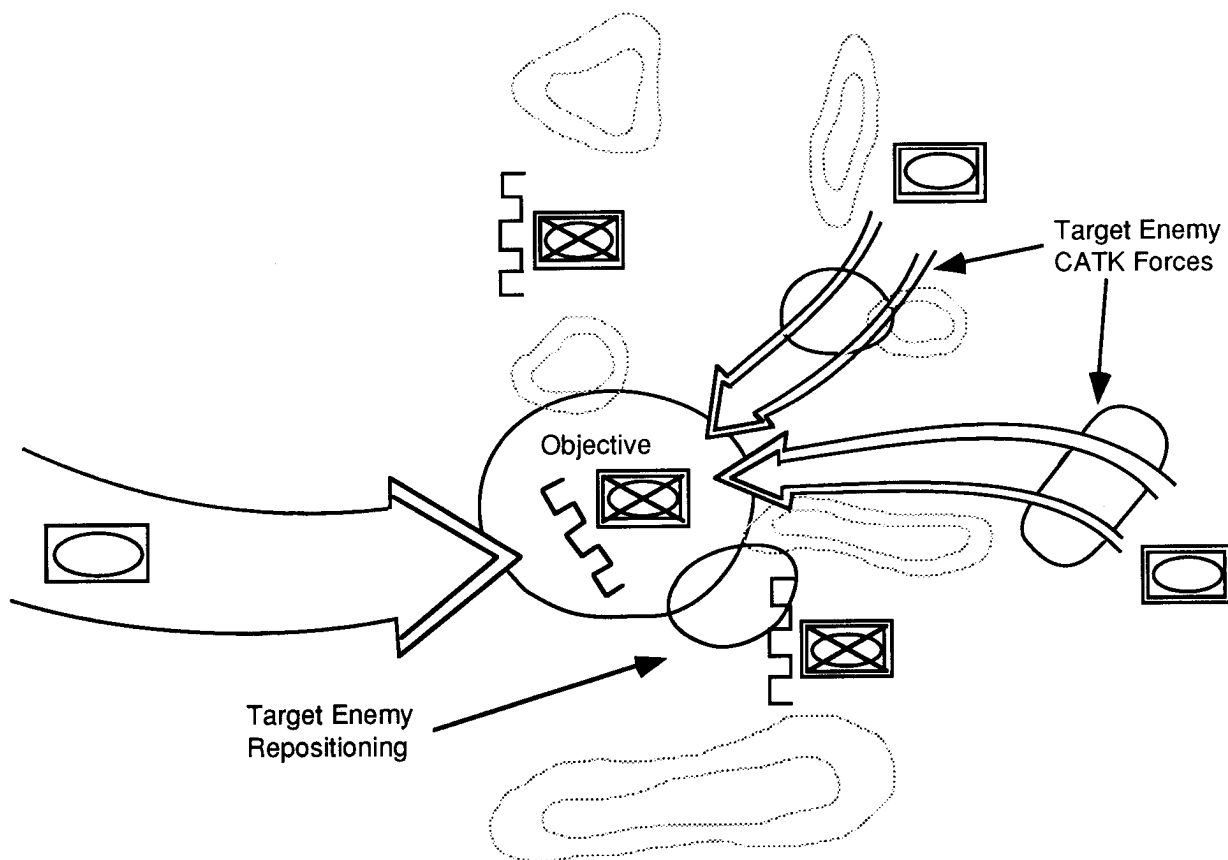


Figure 7-3. Situation obstacles in offense.

- Considers the assets from higher or adjacent HQ that may be available to support intelligence gathering or obstacle emplacement.
- Determines if there are any requirements from higher HQ to plan a situational obstacle.
- Determines if the higher HQ's scheme of maneuver implies the need for a situational obstacle.

COURSE-OF-ACTION DEVELOPMENT

As the staff develops the COA, it may make note of specific actions, or areas, where situational obstacles can support the friendly scheme of maneuver. However, it does the

actual obstacle planning in conjunction with the analysis of the COA.

COURSE-OF-ACTION ANALYSIS

The staff uses the event template and decision support template (DST) to assist in situational obstacle planning. The staff develops the event template and DST as part of the analysis of the COAs.

As the staff war-games a COA, it—

- Develops an event template that depicts NAIs which allow the staff to confirm or deny a particular enemy COA based on identification of an enemy activity or lack of enemy activity.

- Uses the event template to identify areas where fires and maneuver can influence the enemy and designates these areas as TAIs on the DST.
- Identifies DPs where the commander must make a decision whether or not to commit fires or forces to attack the enemy at the TAI.

Every TAI will not necessarily require, or be an appropriate location for, a situational obstacle. In some cases, the time that it takes the enemy to travel from an NAI to a TAI will be so short that triggering situational obstacle emplacement based on enemy

action may be impossible. If the threat of not having an obstacle in the TAI is great enough, the staff may decide to use a friendly action as the trigger for executing the situational obstacle. The staff focuses situational obstacle planning on those TAIs where obstacles can support friendly fire and maneuver (see *Figure 7-4*).

Fires Analysis

The staff analyzes weapon system ranges and effects to determine locations within TAIs where it can integrate fires and

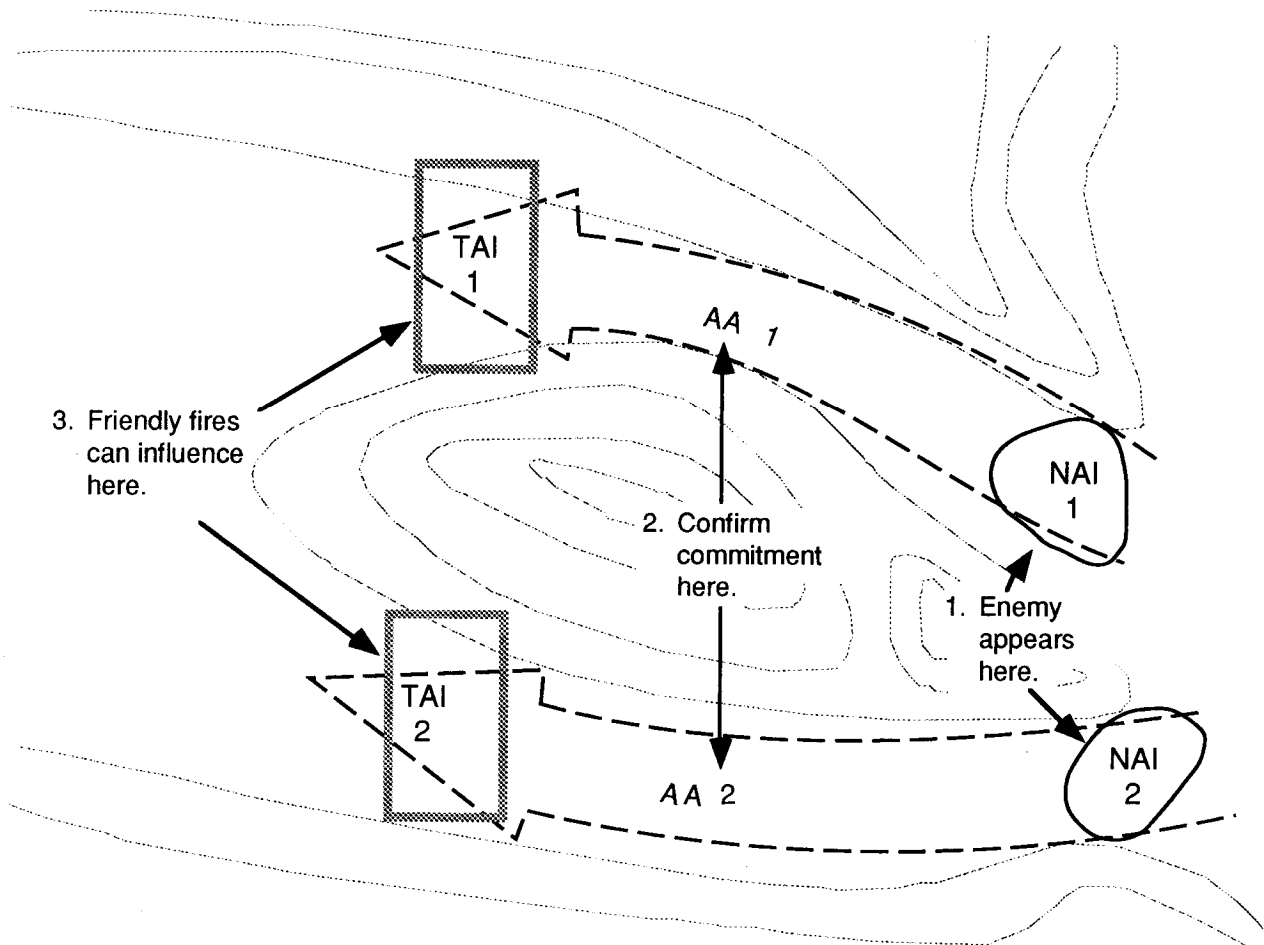


Figure 7-4. Identification of TAIs.

obstacles. The fire supporter, air liaison officer (ALO), and other special staff officers are involved in planning to ensure integration of CAS or JMT missions, if applicable.

Obstacle Intent Integration

After determining where they can use obstacles within TAIs, the commander and staff narrow planning even further by determining the obstacle intent within the TAIs. A TAI is a location where friendly forces can influence the enemy. That enemy is the target of the situational obstacle planned within the TAI. A general location for the obstacle is determined by the TAI and the range and effects of friendly weapons and forces allocated to the TAI. The mission of the friendly force drives the specific obstacle effect and refines the general obstacle location into a location relative to the friendly force or the terrain.

Obstacle Priorities

The commander and staff prioritize the situational obstacles. It is possible that they will develop several "be-prepared" missions for an obstacle emplacement asset. They use the priorities to constrain the situational-obstacle plan based on actual available assets. More importantly, they can use these priorities to assist in decision making during execution of the operation if two or more competing requirements for the same asset develop (see *Figure 7-5, page 7-8*).

Normally, the commander and staff plan for the same obstacle emplacement asset in several TAIs with the expectation that the enemy target will appear in only one. However, the unit controlling the obstacle emplacement capability must understand which obstacle has priority, should the situation call for the same asset in different locations at the same time. The commander and staff must ensure that the element with the

obstacle emplacement asset has sufficient time to plan and rehearse each mission.

Mobility Requirements

The commander and staff consider the impact of situational obstacles on friendly mobility. As a minimum, they should consider the impact on the following:

- Overall scheme of maneuver of the higher HQ.
- Branches or sequels in the higher HQ's plan.
- Specified or implied tasks for follow-on forces.
- Branches or sequels in their own plan.

The commander and his staff must ensure synchronization, unity of effort, and support to the overall plan. They must also consider any obstacle-control measures imposed by the higher commander's order. As with any tactical obstacle, situational-obstacle employment is authorized only within the higher commander's obstacle-control measures, unless the subordinate unit obtains approval to put obstacles outside of the control measure.

Obstacle Design and Resourcing

To select the size and type of situational obstacle required to best meet the commander's intent, the staff analyzes the target, the relative location, and the desired effect. It considers the following:

- Size of obstacle required to meet the obstacle intent.
- Location of the obstacle.
- Accuracy of the emplacement asset.
- Trigger for obstacle execution and the DP.
- Time for the enemy to move from the NAI to the TAI.
- Time to commit the obstacle emplacement asset to the TAI.

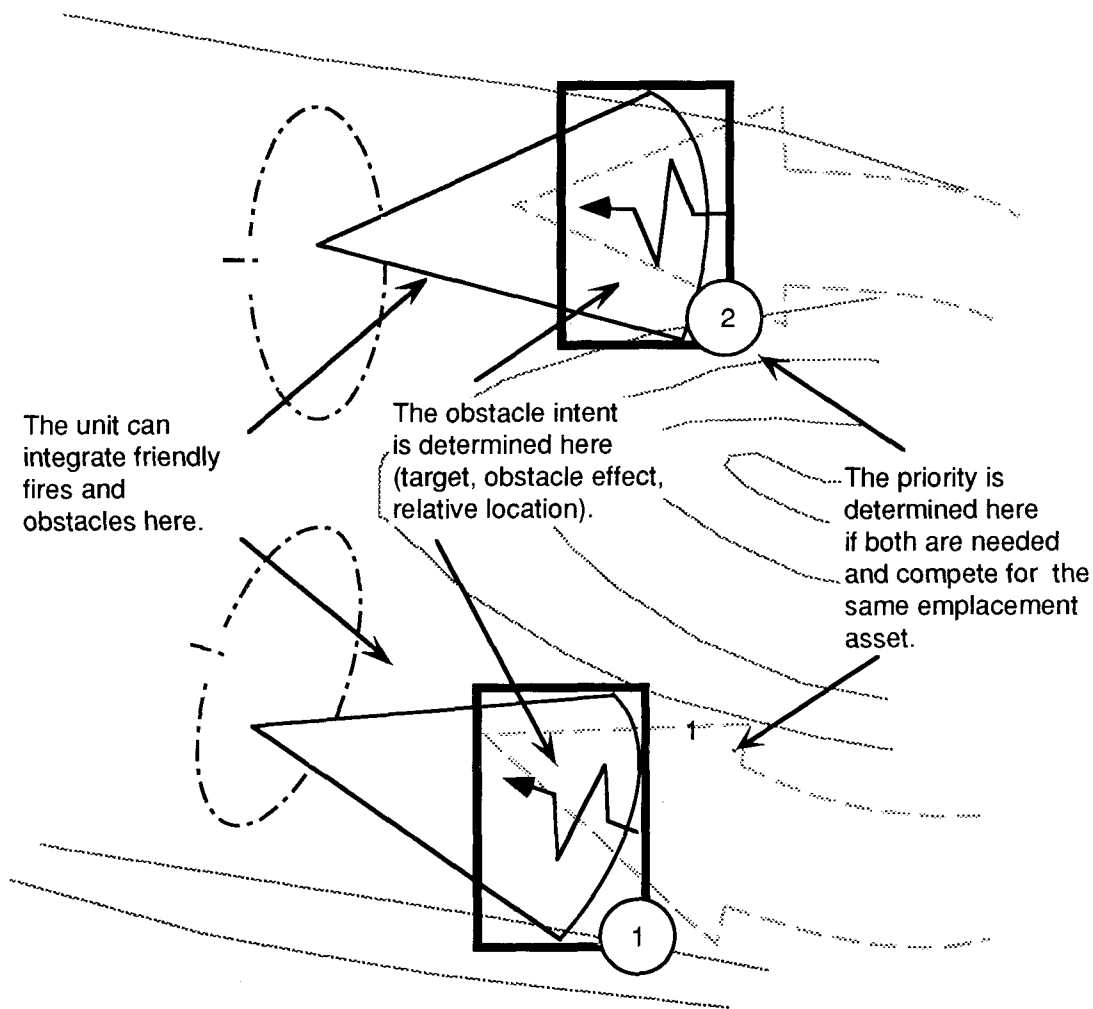


Figure 7-5. Fires analysis, obstacle-intent integration, and obstacle priorities.

- Time for the asset to emplace the obstacle.
- Arming and SD time for SCATMINES, if applicable.
- Time for allocated fires or force to cover the TAI.
- Availability of the obstacle emplacement asset.
- C2 requirements, to include observation of the NAI and reporting responsibilities.

The staff considers the feasibility of using obstacle assets based on the size and

location of the obstacle required and the requirement for accuracy in emplacing the obstacle. For example, locations far forward of friendly positions or behind enemy positions may eliminate the possibility of using conventional obstacles or ground-emplaced SCATMINES. The large size requirements of an obstacle could eliminate the use of ADAM/RAAM. The accuracy required may also eliminate ADAM/RAAM or Gator from consideration.

The trigger and time considerations reflect the necessity of having the obstacle emplaced and armed before the enemy

arrives at the TAI. The commander must be able to—

- Decide to emplace the obstacle.
- Move the asset to the TAI.
- Emplace the obstacle, to include ensuring that it is armed and has not reached its SD time.
- Ensure that the TAI is covered by friendly fires before the enemy arrives.

The staff must select an obstacle design and emplacement asset that can meet the time requirements.

The availability of an emplacement asset is a major consideration. The staff identifies other mission requirements that may compete for the same asset. For example, the artillery may not be able to fire ADAM/RAAM at the expected point in the battle because of other mission requirements.

The staff also determines who will observe the event that triggers the situational-obstacle execution. The unit must clearly identify the observer and a backup observer. If situational obstacles are tasked to subordinate units, they must have the observation platform to identify the target. The unit must also identify clear and concise execution criteria and ensure that communication links are understood. Control procedures should be clearly established. For example, if the higher commander retains the obstacle at his level, the C2 needed to gain approval at a later time should be clearly defined.

The staff relies on the expertise of special staff officers, depending on the assets needed, to emplace the obstacle. The engineer may work closely with the ALO or air mission commander in planning the delivery of air Volcano mines in the right configuration to achieve the desired effect. When planning ADAM/RAAM use, the FSO and FSCoord are involved to ensure that the batteries are in position at the right place and time with the right mix of ammunition to emplace the minefield.

DECISION AND EXECUTION

The staff provides subordinate units with information on the situational obstacle plan in the scheme of obstacles overlay and the situational obstacle execution matrix. Subunit instructions or the operational execution matrix refer appropriate subunits to the situational obstacle matrix.

Scheme-of-Obstacles Overlay

As with reserve obstacles, the staff uses the obstacle effect graphic and the specific individual obstacle symbols (because the commander normally intends to use a specific type of individual obstacle). This ensures that the force attacking the enemy in the TAI and the unit emplacing the obstacle understand the intent of the obstacle.

Situational-Obstacle-Execution Matrix

The situational-obstacle-execution matrix is similar to other obstacle-execution matrixes (see *Figure 7-6, page 7-10*). Information normally shown on the matrix includes—

- Zone/belt/group designation and individual obstacle numbers.
- Location (to include TAI designation and exact grid coordinates), effect, and priority.
- Emplacing and owning unit.
- Trigger for the obstacle.
- NAI/DP for the obstacle.
- Emplacing asset and its source.
- Unit responsible for observing and reporting on the NAVDP.
- Any special instructions for each group.

Rehearsals

Once the order is published, the next step is to rehearse the execution of the obstacle. The focus of the rehearsal is to confirm the timing requirements and ensure that all persons involved in the

obstacle execution understand their responsibilities. The situational-obstacle rehearsal normally is conducted as part of a larger rehearsal, although each situational obstacle is covered.

There may be several different rehearsals at several different levels. For example, a TF and an artillery battalion rehearsal might include the same ADAM/RAAM target. An air Volcano minefield might be covered during a brigade rehearsal and the aviation unit rehearsal.

The intent of the rehearsal is to synchronize the execution of the obstacle. The unit verifies and refines the timing requirements considered during obstacle design (see *Figure 7-7*). First, if the trigger includes an enemy action, the unit determines the time required for the enemy to move from

the NAI to the TAI. If possible, it does this by actually moving subunits from the NAI to the TAI at a doctrinal enemy movement rate. It modifies the movement rate based on expected weather and light conditions. The unit may need to adjust the location of the observation platform that is observing the NAI, based on the terrain or expected weather or light conditions. The location of the NAI or DP may require marking with a TRP.

Next, the unit verifies how long it will take to commit the obstacle asset to the target location. This includes the time required to—

- Report the trigger (enemy arrival at the NAI or friendly action that serves as the trigger).
- Decide to execute.
- Order the execution.

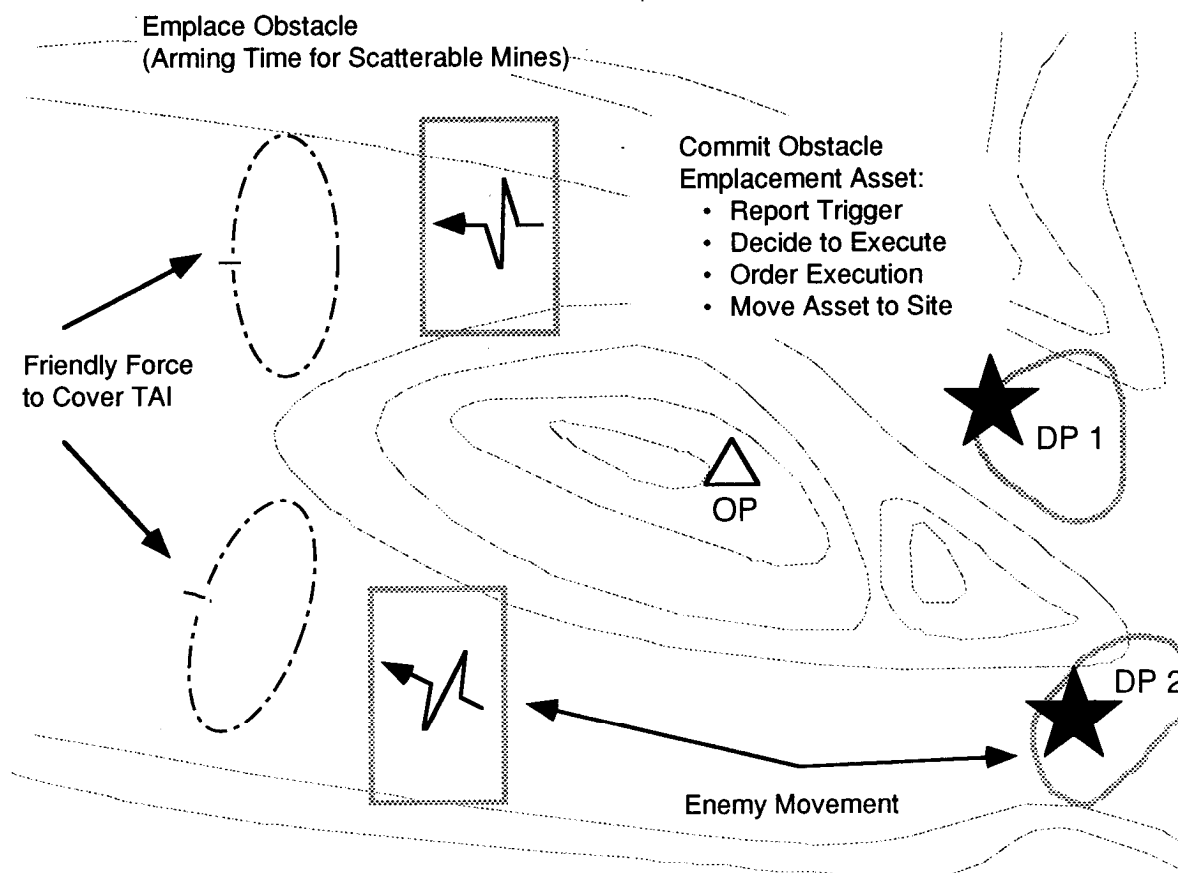


Figure 7-7. Time requirements.

- Move the emplacing asset to a location where it can begin emplacing.

The unit confirms the emplacement time of the obstacle. This may be determined by an actual physical rehearsal (such as how long it will take a ground Volcano system to drive the obstacle trace or a similar piece of terrain). The unit may need to estimate the emplacement time, based on previous experience or training, such as in the case of artillery-delivered ADAM/RAAM.

If the unit uses SCATMINES for the situational obstacle, it figures arming time into the total time required for emplacement. For example, it takes 45 minutes for a Flipper mine to arm. Another time factor the unit considers is the duration of the effect. The SD time for short duration ADAM/RAAM, for instance, is four hours from the time the mine is armed (the first mines will begin to SD after 3.2 hours). Consequently, it is important that the obstacle is not executed too early.

Once the unit verifies the total time required for the situational-obstacle execution, it compares this time with the time required for enemy movement from the NAI to the TAI. If the time to execute exceeds the enemy movement time, the unit may need to modify the emplacement plan. The unit may change the design of the obstacle, such as reducing the density of a scatterable minefield to

reduce emplacement time. The unit may change the DP location by accepting risk and putting the DP farther out than the NAI and deciding to execute based on a probable rather than a confirmed enemy action. The unit also can change emplacement asset numbers or locations, such as increasing the number of firing batteries for ADAM/RAAM or positioning emplacing systems closer to the obstacle location.

The unit also compares the emplacement time with the time required to integrate fires and maneuver with the obstacle. The unit ensures that the time requirements allow it to synchronize the effects of the obstacle with fires on the enemy at the TAI.

Another important element to consider during the rehearsal is the availability of assets. The staff must ensure that the assets necessary to emplace the situational obstacle are available for the mission. During the rehearsal, it is very important to determine the availability of the asset and potential situations where the asset may not be available. The priorities for all emplacing assets must be very clear.

Execution

Situational obstacles provide a tremendous capability to the unit. The success of situational obstacles depends on a good plan, rehearsed preparation, and disciplined execution.