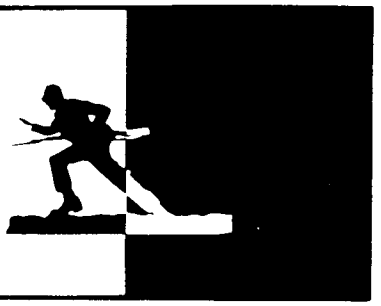
TRAINING NOTES



Walk and Shoot Training

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When an infantry company conducting a movement to contact in training makes contact with the enemy and comes under direct fire, the immediate response is often a headlong rush to close with and destroy the enemy. No thought is given to the fire support plans that have been developed and rehearsed to support the operation. Combat patience is rejected--along with the use of indirect fires to support movement and develop the situation.

In many cases, of course, infantry units should turn to artillery and mortar fires (among others) before rushing soldiers into harm's way. In other words, an infantry leader should not attempt to close with and destroy the enemy until advantageous conditions have been created-that is, until many of the enemy soldiers have been killed or wounded and the rest have their heads down and are no longer offering stiff resistance. Such situations always depend, of course, upon an analysis of METT-T (mission, enemy terrain, troops, and time available), and there are many cases, particularly in a movement to contact, where infantrymen should aggressively close with the enemy, maintain contact, and kill him with direct fires. Nonetheless, when the bullets are real and the penalties for "MILES courage" are more than a loud ringing noise, movement is much slower and indirect fires figure much more prominently.

Although we generally accept that fact, we don't always integrate fires into our training the way we should. We talk about using live artillery and mortars in relatively free-play maneuver exercises, but more often than not our training of company commanders and platoon leaders is little more than sitting on an observation post (OP) or in a defensive position and adjusting fires into an impact area to our front.

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Seeking a way to overcome this challenge and to train company commanders, platoon leaders, and their fire supporters on fighting with indirect fires, the 1st Brigade of the 82d Airborne Division conducted a "Walk and Shoot" tactical exercise without troops (TEWT) at Fort Bragg. The exercise--and the preparatory training for it--involved the company commander and his fire support officer (FSO), the platoon leaders and their forward observers (FOs), and all associated radiotelephone operators (RTOs). The exercise was conducted in an area adjacent to and extending into one of the post's impact areas. During the course of the training we probably just scratched the surface of a challenging training task, and we made plenty of mistakes; but we also learned a number of lessons worth sharing with others.

We offer here the objectives, train-up, training conditions, execution, and (most important) the major lessons learned in what turned out to be a great training exercise on the employment of indirect fires.

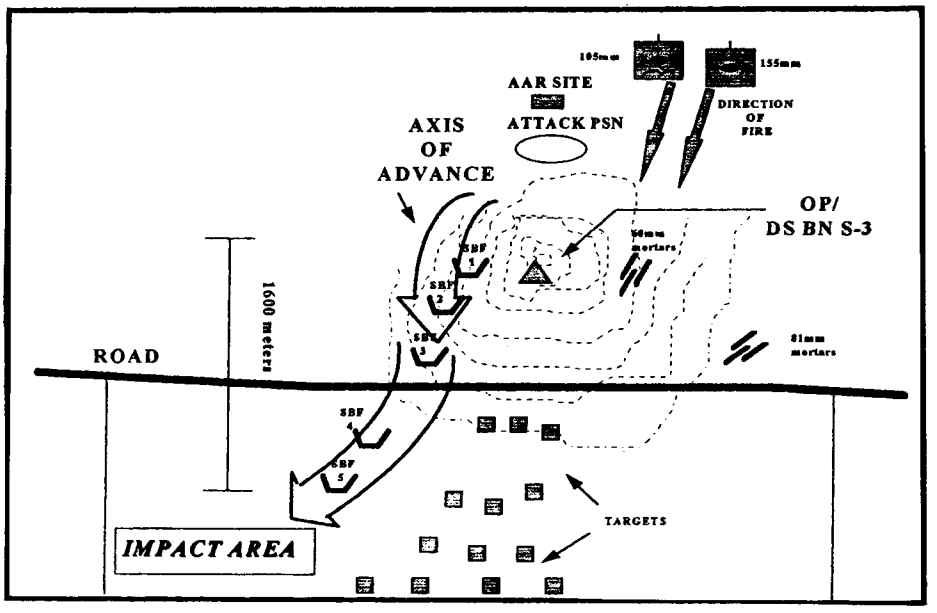
Training Objectives

The objectives of the brigade's Walk and Shoot were to train company commanders and platoon leaders on:

- Planning and executing a movement to contact (approach march).
- Planning and employing 60mm and 81mm mortars and 105mm and 155 mm howitzers in support of an approach movement to contact.

These objectives remained our

focus throughout the development of the training, and they kept us from trying to incorporate too many other tasks and assets (such as close air support, attack helicopters, and the like). Whenever one of us had another "good idea" on how to improve the training, we tested it by asking whether it contributed to the accomplishment of the established objectives.



Pre-Execution Training

Pre-Walk and Shoot training was conducted to ensure that company commanders, platoon leaders, their FSOs/FOs, and the RTOs, as well as the observer controllers (OCs), were properly trained before the actual live fire exercise. The exercise repeatedly reminded us that RTOs are key members of company and platoon command posts (CPs) and should be included in all preliminary training and the TEWT.

The preliminary training consisted of a class on fire support fundamentals and training in the forward observer trainer simulator. We soon realized that a third event, conducted on a sand table or on suitable terrain, would have reinforced the basics and allowed a smoother transition to the event itself. In the future, we will ensure that pre-Walk and Shoot training consists of a fire support fundamentals class, training in the FOTS, and a dry-fire TEWT or a sand table exercise.

Fire Support Fundamentals Class. The fire support fundamentals class should include a number of topics and should be scheduled for at least a three-hour block of time. It should cover the ranges, capabilities, and limitations of the various indirect fire weapon systems, including the types of rounds and fuses and a discussion of what situation or target array requires which shell and fuse combinations—such as variable time (VT) fuse for troops and other soft targets in the open.

The class should also include:

- The basic elements of the different calls for fire and when each of them should be used.
- A discussion of the techniques for determining target and observer location, and range and direction to a target using the precision laser GPS (global positioning system) receiver (PLGR) and the new AN/PVS-6 range finder, along with a map and compass.
- A description of the fire support coordinating measures (FSCMs) and their uses and effects on maneuver operations and use of fires.
- A discussion of all weather command and control aids and map boards that leaders should use to record information, track locations of friendly and enemy units, and maintain proper locations of FSCMs.

Forward Observer Trainer Simulator (FOTS). The FOTS gives leaders, fire supporters, and RTOs practical experience in calling for and adjusting fires. Companies should conduct FOTS training with all their leaders at one time, ideally using the same radios they use during tactical operations.

Additionally, the 60mm and 81mm mortar fire direction centers (FDCs) and their radios, the 105mm and 155mm FDCs with their radios, and the battalion fire support element with its radios should set up in a separate room or outside the FOTS building. This will ensure that the training audience is trained not only on the mechanics of calling for fire and making proper adjustments, but also on the procedures that must be followed and the different radio nets they will have to use to clear, request, and adjust the fires of all the indirect systems that support an infantry unit.

Dry-Fire TEWT of Sand Table Exercise. A dry-fire TEWT or sand table exercise conducted in addition to our work in the FOTS would have allowed leaders to further develop and practice the skills needed to control a tactical operation and to employ indirect fires. The old Dunn Kempf terrain board would be ideal for this, as would a large sand table; or a unit could conduct the training on the actual terrain or on any other terrain that provided enough maneuver space and observation. As with the FOTS training, the mortar and field artillery FDCs and the artillery fire support element should be present to ensure the exercise of the radio nets and communications skills that are critical to getting fires rapidly.

Execution

As with any other training event, setting the training conditions is critical to the success of a Walk and Shoot. We took the following steps to ensure that the training conditions were as good as we could make them.

First, several months before the training date we walked the ground, developed the general scenario, and submitted it to range control for approval. We then marked five support-by-fire positions on the ground along the route we thought the units would

follow, which we would use as reference points in developing the detailed scenario. We used these positions to determine which weapon systems could engage which targets in the impact area on the basis of the minimum safe distances (MSD) for each system. (We did not, however, restrict the units to those positions during the exercise. We occasionally steered them a bit, but generally tried to leave them free to maneuver as they saw fit.) Once the detailed scenario was finalized, we submitted it to range control for approval as well.

We coordinated well in advance for the howitzers and the mortars, and we ensured that the entire fire support structure—up to the direct-support (DS) artillery battalion tactical operations center—was prepared to support the exercise. We also worked with the firing units to determine the number of rounds available and then built that number into the tactical scenario.

Several months before the exercise, we asked the Fort Bragg emergency ordnance disposal unit to surface clear and mark a lane about 20-30 meters wide for 500 meters into the impact area. This was done shortly before the exercise, and it allowed the leaders to experience calling for fire on targets observed at ground level that were literally all around us; it also extended the length of our "lane" to about 1,600 meters. During the final weeks before the exercise, we also conducted the pre-Walk and Shoot training described earlier.

At the end of that training, about one week before the exercise, we issued a battalion operations order to give the company commanders the basis for the company plan they would develop and brief to the brigade commander during the first phase of the exercise itself.

Several days before the exercise, to ensure proper control and a suitable training environment, we established an after-action review (AAR) site in a GP medium tent. This site was complete with sand table, blow-up maps of the area, butcher paper, chairs, lights, and containers for hot soup and coffee. (We conducted the exercise in January and recognized that our leaders would not get much out of the pre-TEWT backbrief and the AAR if they were cold, hungry, or in the dark.)

Finally, the day before the first iteration we conducted a rehearsal with all Walk and Shoot indirect fire assets, the OCs, and the fire support system in place. (The OCs were the brigade commander—who walked with the company commander during the exercise—and the brigade S-3, FSO, and DS artillery commander—each of whom went with a platoon leader.) This not only helped us refine our scenario and our control concept but also completed the certification of the OCs on the training they would conduct.

Two companies per day participated in the actual live-fire Walk and Shoot. The exercise, which took six or seven hours per company, was conducted in three phases:

Phase I was the order backbrief by the company commander and his FSO to the brigade commander and the infantry and DS artillery battalion commanders at the AAR site. The backbrief included the company commander's task organization, assessment of the enemy situation, mission, and concepts for maneuver, fire support, command and control, and risk reduction (the latter focusing on the prevention of fratricide from both direct and indirect fires). The backbriefs proved to be excellent training for the company leaders, FSOs, and RTOs, particularly as the OCs' frequent interjections prompted discussions of the tactics, techniques, and procedures for the task at hand.

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Phase II was the actual live-fire Walk and Shoot TEWT. Tactically, this portion consisted of the unit—upon completion of final pre-combat checks—moving along an axis of advance (which took them toward and then into the lane that was cleared into the impact area) as the supporting effort in a battalion whose main-effort company was conducting a movement to contact on the exercise unit's flank. The exercise company's mission was to destroy enemy elements in zone to prevent them from inter-fering with the main effort. The company did not have priority of 105mm artillery fires in the battalion but was given priority of the battalion 81mm mortars.

To create the initial situation requiring the use of indirect fires, the OC with the lead element would point out a close target in the impact area and tell the platoon leader that he was receiving direct fire (usually machine-gun fire) from a suspected enemy OP at that location. The correct response was to report the contact on the command net and call an immediate suppression mission to the 60mm mortars on the company fire support net.

This was basically the pattern followed for all the subsequent actions: An element would move in response to instructions from the company commander; the element leader would be told by a controller that his element was under fire from the vicinity of one of the hulks in the impact area and would then take the appropriate actions. The controllers varied the scenarios to create situations that required the use of each of the different fire support means available and to exercise the element in the use of each of the different types of calls for fire.

The company commander was required to report as he normally would to his battalion commander (who had his RTO with him as well) and, as required, controllers would ask the battalion commander to give tactical instructions by radio to his company commander in order to prompt the unit to move or take other actions to facilitate the training ("need you to move out, the main effort is getting too far ahead of you").

The exercise control linkage was maintained through the use of a separate control net. The brigade commander, the DS artillery commander, and each of the other OCs,

along with the battalion commander of the exercise company, communicated over a control net using hand-held radios. (The battalion commander was included so that we could use him to prompt the company to take particular tactical actions.) The DS artillery battalion S-3, in the OP bunker with the battalion FSO, monitored each of the key fire support nets to ensure safety. The control net enabled us to ensure that, at least in the early stages of each iteration, we were not generating more fire missions than the tactical unit commander and his FSO could track. (We did tend to "pump up the volume" later as the unit's proficiency increased.) Additionally, it allowed us to keep track of the number of rounds remaining for each system, coordinate our actions, confirm the instructions the elements were receiving through their tactical nets, and mention other items to each other that should be brought up in the AAR (such as whether the unit shifted the priority target as needed and confirmed that fires near a no-fire area were properly cleared).

Phase III was the conduct of the AAR. The brigade commander conducted all but one of the AARs, and they proved to be great vehicles for reinforcing the many lessons the unit learned while preparing for and conducting the exercise. We always concluded by asking everyone who went downrange, starting with the junior man and working up to the senior man (OCs included), what major lesson he learned that day. That portion was always worthwhile. The structure of the AAR generally paralleled the organization of the following lessons-learned:

Maneuver:

• Movement formations and techniques must be in accordance with doctrine and appropriate to the enemy situation. Simplicity should generally be the order of the day; the more exotic formations (such as the company vee) prove difficult to control even in the daytime and should not be used unless the unit is quite proficient in dismounted movement.

• Given that an element should not bound farther than the range of the direct-fire weapons of the element overwatching its movement (no more than about 300-500 meters, terrain permitting), bounding at company level can be a slow process. Hence, a company should not begin bounding prematurely if it must keep up with units on its flanks that are moving fairly fast. (The movement technique, of course, depends on the likelihood of enemy contact that calls for bounding at squad or platoon level.)

•Sufficient graphical control measures are essential to the conduct of a movement to contact. Included among them should be objectives to orient unit movement, phase lines (which can help trigger the shifting of priority targets), checkpoints, axes or directions of attack, and so on. But these should be put on the map in such a way that leaders can still read the contour lines.

•Situational awareness is critical to ensuring speedy indirect fire support. Leaders, FSO/FOs, and RTOs must constantly be aware of their location and those of other friendly units, the location of the preplanned priority targets for each weapon system, and the enemy location in relation to friendly units and targets.

As a general rule, targets should be plotted about one per grid square, or slightly more, along the route of a movement to contact.

• We must use terrain to ensure force protection (using cover and concealment to go around a hilltop instead of skylining the element by going over the top) and to gain a position of advantage relative to the enemy.

Fire Support:

• As a general rule, targets sh-ould be plotted about one per grid square, or slightly more, along the route of a movement to contact. Additional targets should be planned around locations where the unit may consolidate, defend, or conduct an attack.

• Leaders must understand the importance of priority targets--the targets on which the tubes of each system are laid when not firing other missions. Moreover, leaders must know which target is the priority target for each system at any given time.

• Priority targets must be shifted before friendly units are closer to the target than the minimum safe distance of the particular weapon. As a general rule, 300, 400, 500, and 600 meters are reasonable and easily memorized MSDs for the 60mm, 81mm, 105mm, and 155mm, respectively. Using these MSDs, priority targets should be shifted as the unit progresses, based on the caliber of the indirect fire system and its MSD. (One technique is to have a 155mm priority target become the 105mm priority target and to have the 105mm priority target become the 81mm target). To ensure that targets are shifted as required, good triggers (such as phase lines or terrain features) must be established as part of the fire support plan. The key, of course, is to keep targets out far enough that the MSD for the system does not preclude their use and yet not so far out that they will be of little use if the unit should make contact with the enemy.

• If compasses are not already set to account for the declination constant, the grid-magnetic angle must be subtracted from (or added to, as appropriate) the compass reading before giving the observer-target direction

• Leaders, their FOs, and their RTOs must work as a team and must double-check every direction, location, and other piece of information before it is called to the higher headquarters or an FDC.

• The PLGR and the AN/PVS-6 laser range finder, together with a precise direction to a target taken off a good compass, can result in first-round hits using the polar plot method of calling for fire.

• Since FSOs and FOs often must communicate long distances when talking to FDCs or FSOs in higher headquarters, their radios should generally have long-whip antennas mounted. (Platoon leader radios, on the

other hand, can get by with short whips in most cases.)

• Fire support rehearsals, with radios, are critical to the smooth execution of a fire support plan on the ground, and leaders should take part in these whenever possible.

• The 60mm mortars, if not moving (or if moving with the lead element) are the most responsive fire support available to infantry platoons, but they have the fewest rounds available and are typically the least accurate and slowest to make adjustments. The 81mm mortars are the next most available, are more accurate, and generally have more available rounds than 60mm mortars. Artillery is the most accurate and quickest to make adjustments, but more work is required to get artillery support if the unit does not have priority of fires. Needless to say, the larger the round, the greater the effect.

• The quickest way to get several rounds on the ground is to fire the 60-mm mortar priority target as an immediate suppression mission; any required adjustments can then be made from this one.

•Everyone who can should observe the first round fired at any planned target; it tells observers where subsequent rounds fired at that target will land and which way the wind is blowing in the vicinity of the target.

• When using white phosphorus as a marking round, it is not necessary to adjust the round to the enemy location; the observer merely announces to the element that requested the marking round a cardinal direction and an estimated range from the point of impact to the enemy.

•Getting rounds on target can take time, but leaders can speed the process by having a well-rehearsed battle drill for situations requiring indirect fire. This will prevent them from getting rattled in such cases and will ensure that ranges, directions, and locations are determined as quickly and as accurately as possible–with all parties in the CP coordinating closely and confirming that the others' work.

Command and Control:

•The development of all-weather "heads-up" displays for leaders, FSOs /FOs, and RTOs is very important. Critical to the success of an element's CP are acetated maps, memory joggers, checklists for recording information such as friendly locations and the number of rounds of 60mm mortar ammunition remaining, overlays that contain critical information (checkpoints, targets, objectives, boundaries, enemy information) but do not obscure the map, and boards for recording fire mission adjustments and locations.

• Putting two handsets on a radio enables the RTO to keep one to his ear at all times and hand the other to his leader as required. This helps ensure that the RTO answers calls immediately and hears conversations when his leader is on the radio, which helps him maintain situational aware-ness and contribute more to the CP as a result.

• To further foster the concept of the leader, his FSO/FO, and his RTO as a team, each of the three should attend orders and participate in backbriefs and rehearsals.

• The importance of concise but thorough SALT (size, activity, location, time) reports on enemy activity must be emphasized and practiced.

• Brevity on the radio is a virtue, as is the elimination of unnecessary phrases (such as "anything further" and "how copy"). Beyond that, there is no need to insert "breaks" in transmissions when using frequency-hopping radios. Finally, we should refrain from using complicated lists of code words (also generally not needed with frequency-hopping radios).

• Leaders must be where they can best control their elements. That location is often one from which they can best see the battle. There is no reason to put a company CP down in a hole from which visibility is nil when 50 meters away there is a location from which the CP, without additional risk, can see the entire unit front.

Leader Business:

•Thorough pre-combat inspections, as always, are critical to a successful operation. In this case, checks that proved critical included radio checks on all command and fire support nets (60mm and 81mm mortar nets; FD1, 2, and 3; and the 155mm net) and presetting those nets on the appropriate radios; verification that all PLGRs are set on the correct grid zone indicator; and confirmation that radios, PLGRs, and PVS-6 rangefinders have fresh batteries.

• Leaders, their fire supporters, and their RTOs must work together as a team. Each must continually ask three questions (which should be stressed during each of the preliminary training sessions):

Where are we and where are other friendly units?

Where is the enemy?

Where are priority and other targets relative to the enemy and friendly units?

This Walk and Shoot exercise (including the preliminary training) did more to achieve the identified training objectives than any other training the participants had experienced. Training down to platoon level is key, because that is the level at which indirect fires are often requested and adjusted. Movement also added immeasurably to the learning achieved in this exercise, as it provided the dimension of maneuver and the resulting exercise of movement reports, shifting of formations and movement techniques, and even the use of land navigation skills. The end result was excellent training for the leaders and troopers who would be at the point of the spear in such a tactical operation--the leaders on whom the burden of fighting with fires would really fall.

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