

82d Airborne Division Maneuver and Fires Integration Program

By Major John P. Drago

The Combat Training Centers (CTCs) have identified many repetitive negative trends within the fire support battlefield operating system (BOS) in support of a brigade combat team (BCT). Foremost for all fire supporters is the trend identifying the failure to support forces in contact with responsive, accurate indirect fires. Many observations indicate that indirect fires often never make it into the fight.

There are many potential causes for these trends, not all of which are attributable solely to fire supporters. In planning, the importance of using indirect fires is seldom grasped. During rehearsals, calls-for-fire (CFFs) are seldom incorporated or their purpose accurately explained. During execution, communications routinely fail, CFFs are not processed or tactical patience is not practiced. Poor situational awareness causes slow clearance of fires in the company sector, and commonly, units become impatient and maneuver against the enemy without employing their indirect assets.

Squad leaders and platoon leaders often are not aware of or comfortable with CFF procedures and their employment. The result is that units fail to integrate indirect fires when in



contact, thus reducing the combat power ratio. This allows the enemy to break contact on his terms.

Although most units recognize that in many cases infantry units should employ mortars and artillery before rushing into a direct firefight, they don't always integrate fires into training. Training is often "stove piped," rarely providing the opportunity to fully synchronize and employ all available assets.

Instead of resourcing training to replicate the true capability of the combined arms team, more often than not, fire supporters sit on the observation post (OP) calling for fires, and company commanders and platoon leaders receive occasional instruction on CFF procedures and indirect capabilities. In most units, rarely do these teams train and execute operations using live artillery and mortars in relatively free-play maneuver exercises. In essence, many of our maneuver brethren don't gain a full appreciation of the magnitude of indirect fire effects and what they can do for their fight.

In view of our no-notice contingency mission and the necessity to maintain proficiency in integrating maneuver and fires, the 82d Airborne Division BCTs at Fort Bragg, North Carolina, execute a maneuver and fires integration certification program—the subject of this article. This program is designed to train and certify maneuver-fires teams at the company and platoon levels to

plan, coordinate, synchronize and execute integrated maneuver and indirect fires. Focused on a phased approach to teach fire support fundamentals and tactics, techniques and procedures (TTPs) for execution, an integral part of the program is the Observation Post (OP) 13 fire control exercise (FCX) or combined arms live fire exercise (CALFEX). This realistic live-fire exercise provides an ideal setting for infantry company commanders, platoon leaders and their respective fire support officers (FSOs) and forward observers (FOs) to build trust and confidence within the teams. Ultimately, by executing danger close



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fires, maneuver units gain an appreciation for the destructiveness of indirect fires and solidify the maneuver-fires relationship in planning and controlling these fires.

Preliminary Training. To ensure all teams are trained to a common level of proficiency before the mission cycle or before a live-fire exercise, units undergo preliminary training to provide the foundation for success and reinforce proper techniques. The first step in this process is instruction on fire support fundamentals.

Classroom Instruction. Brigade and battalion fire supporters provide classroom instruction to maneuver-fires team personnel. It includes fire support asset characteristics and capabilities, munitions characteristics and shell-fuze combinations, fire support coordinating measures (FSCMs), CFF procedures and when to use each mission, techniques for determining target and observer location and range and direction to a target, echelonment of fires, minimum safe distances (MSDs) and risk estimate distances (REDs), company fire support planning and execution procedures, clearance of fires and FO control options.

CFF Training. In this phase, units train the maneuver-fires team on conducting fire missions in the FO trainer simulator (FOTS) or Guard unit armory device full-crew interactive simulation trainer (GUARDFIST). Both infantry and artillery personnel meet minimum mission requirements on the training devices, primarily to reinforce the classroom CFF training and give company commanders and platoon leaders an appreciation for what their FSOs or FOs do to put rounds down range. Having the teams execute the training together also helps build a cohesive team.

If time and scheduling permit, a technique to improve this training is to include mortar and artillery fire direction centers (FDCs) and radios to work the entire fire mission processing chain on the appropriate radio nets.

Fire Support Planning/Rock Drill. The final phase in the program before the live-fire exercise focuses on training the team to plan and rehearse fires in support of maneuver operations. The company is issued a battalion order and allocated multiple fire support assets. The company commander and FSO then develop a concept of the operations and a fire support plan to support the commander's scheme of maneuver. This plan is briefed and rehearsed on a map or terrain board and then executed "dry" on the actual terrain or in a field location that provides the necessary maneuver space, if possible.

This training employs all teams operating on their standard radio nets and mortar and artillery FDCs replicating their procedures and radio transmissions. If the exercise is conducted on a terrain model, a useful technique is to include a howitzer section and mortar section in the training. This permits company commanders and platoon leaders to visualize the fire mission processing chain from the CFF through the section crew drill and understand the steps involved before receiving "Shot" and "Splash."

The infantry and artillery battalion commanders facilitate this exercise as senior observer/controllers (O/Cs), offering their insights and experience to improve execution.

Exercise Execution. After these preparation phases, the training culminates with the execution of an FCX, a live-fire tactical exercise without troops (TEWT), or CALFEX at OP 13. This exercise trains the combined arms team to execute a deliberate attack or movement-to-contact using multiple fire support systems. The event is a fully synchronized operation, employing every available asset and maximizing preparation,

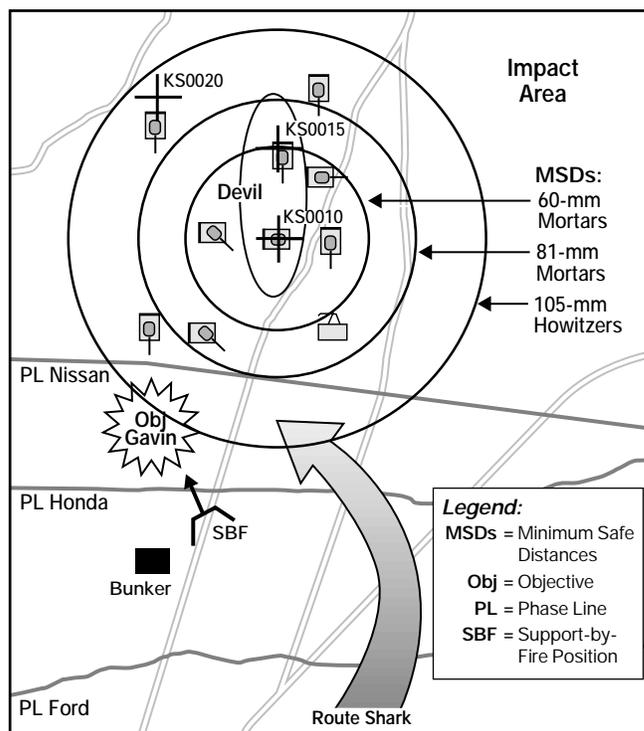


Figure 1: Training Lane Route Shark for the OP 13 Exercise. Targets KS0010 and KS0015 are in Series Devil.

planning and coordination. The goal is to make this exercise as free play as possible, allowing units to execute the echelonment of danger close fires.

OP 13 Scenario/Layout. The general layout of OP 13 provides the opportunity to create a realistic scenario to employ danger close fires (see Figure 1). The scenario can incorporate, in sequence, a deliberate attack, consolidation and reorganization, movement-to-contact, hasty attack and hasty defense.

A lane is established to allow the unit to move along an axis of advance toward and, if coordinated, into the impact. The enemy situation is developed and portrayed by existing targets in the impact area. The company commander's scheme of maneuver generates phase lines (PLs) used as control measures to help initiate, lift and shift fires.

Based upon the targets used to replicate the enemy engagements, MSDs for each weapon system are computed in accordance with AR 385-63 Policies and Procedures for Firing Ammunition for Training, Target Practice and Combat. These computations ensure the safe delivery of fires by identifying clearly on a map the point where targets become unsafe in relationship to the maneuver unit locations as the units assault the objective.

Figure 1 displays the MSDs plotted (not to scale) for several weapons systems on one target (KS0010). These same computations are developed by the FSO executing the lane, providing the basis for echeloning fires of different systems.

Exercise Control. Control is maintained via a separate control net linking the brigade commander, direct support (DS) artillery commander, battalion commander and S3 of the exercise company, and each O/C with platoon elements. The DS artillery battalion S3, infantry battalion assistant S3, battalion FSO and representation of any other assets, such as close air support (CAS) and attack aviation, man the OP bunker and monitor all respective fire support and maneuver nets. These nets allow the exercise controllers to drive the

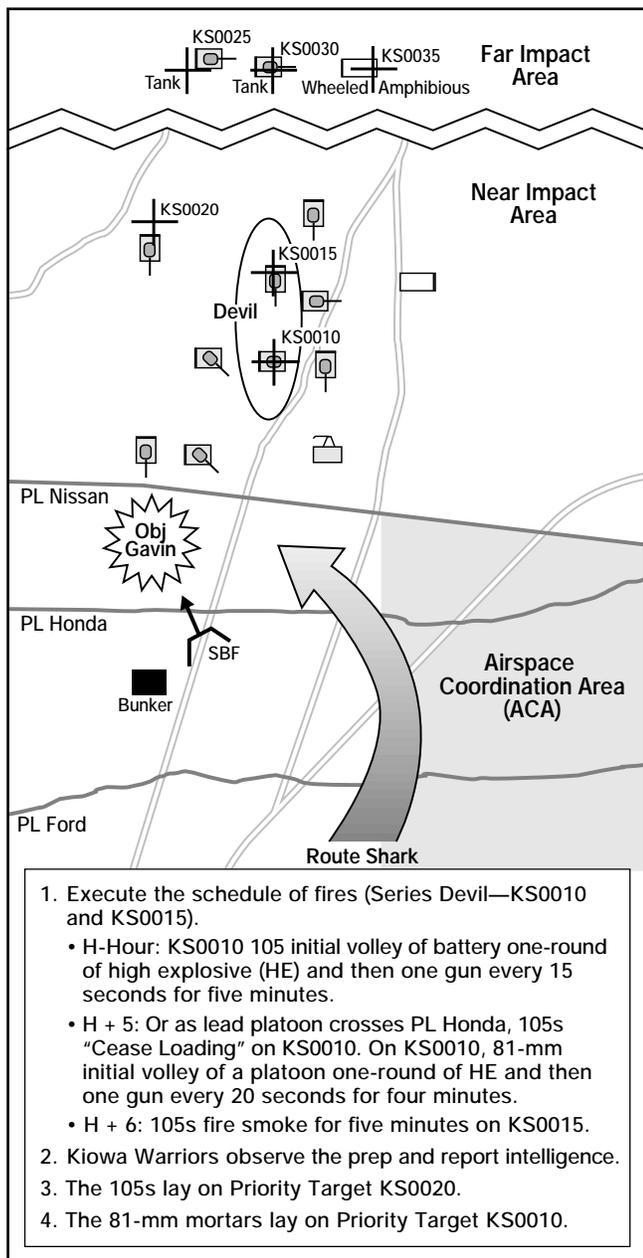


Figure 2: Scenario for the Deliberate Attack in OP 13 Exercise

scenario, control the pace of the exercise and maintain the unit's safety.

Execution of Fires. During this scenario, when supporting the deliberate attack, the FSO's plan likely will include the use of pre-assault/preparatory fires. Timing the arrival of the maneuver forces just as fires are lifted and shifted is the key to this task. Synchronizing the arrival of forces with the end of pre-assault fires allows the company to take advantage of the devastation and confusion created by the preparation.

These fires usually signal the beginning of the attack. If they are delivered early and not fully synchronized, infantry could maneuver at the critical moment exposed, without indirect fires.

In the OP 13 exercise, either a time or an event, such as crossing a phase line, triggers this initial engagement. As the lead platoon crosses a particular phase line, the platoon FO reports to the FSO (depending on the type of FO control option) who initiates firing on objective targets.

Another task typically employed with this operation is the synchronization of fires with the breach through suppression, obscuration, security and reduction (SOSR) fires. Suppressing fires allow the breach element freedom of maneuver to the obstacle by echeloning fires with artillery and mortars. The company commander and FSO lift and shift fires based on the MSDs, allowing maximum effects on target while minimizing risk to friendly forces.

For example, the fire plan may include suppression by multiple caliber weapons in range of the breach (possibly 105-mm, 81-mm and 60-mm). As the lead element approaches the MSD for 105-mm, the company FSO and fire support NCO (FSNCO), in coordination with the company commander, trigger "Cease Loading" on this system and shift the 105s to a deeper target. As the force continues its movement, echeloning of fires continues with 105-mm transitioning to 81-mm fires and then to 60-mm fires.

The trigger to lift or shift some of these fires may be linked to a control measure, such as a phase line or terrain feature. The key is to ensure that delivery systems overlap with no gaps in suppression. An asset should never be turned off but, rather, shifted beyond the objective.

Obscuration denies the enemy visibility of the support-by-fire (SBF) position and the breach element reducing the obstacle. These fires are executed by delivering a predetermined duration of smoke synchronized with all maneuver elements.

Based on the timing of these efforts, the company commander and FSO control the delivery of smoke and shifting of fires to allow the assault force to attack through the breach and gain a foothold on the objective. Tied to the advance of the infantry, fires focus on the task of securing the firing area to prevent the enemy freedom of maneuver, either to counterattack or reposition his forces.

As assets echelon off the objective, fires are shifted either to enemy avenues of approach or onto an enemy withdrawal. If Kiowa Warrior helicopters are available, they are integrated to attack the objective on routes previously deconflicted with gun-target lines. Finally, fires reduce the enemy forces, allowing the assault force to pass through the lane, and then support the assault force's destruction of the remaining enemy forces. This scenario and associated fire plan may be developed many ways.

Figure 2 depicts one scenario option on the OP 13 lane for the deliberate attack. As the lead platoon crosses PL Ford, the prep (target Series Devil) is initiated on Objective Gavin. The purpose of the series is to neutralize the enemy platoon in the vicinity of the objective and to screen the breaching force. The Kiowa Warriors provide the observation for firing Series Devil. Once Series Devil targets are fired, the 105s will lay on Priority Target KS0020 and the 81-mm mortars on KS0010.

The final task in the deliberate attack is for fires to prevent the enemy from moving to and from the objective by using blocking fires or final protective fires (FPF). The FSO and FSNCO adjust 105-mm FPF on the mounted avenues of approach, while the platoon FOs adjust 81-mm and 60-mm FPF on dismounted avenues.

As the enemy counterattack begins, the company commander may direct the integration of CAS. The battalion FSO fires white phosphorous marking rounds for the CAS, while the battalion air liaison officer (ALO) directs aircraft to conduct strafing and bombing runs to defeat the enemy mounted counterattack.

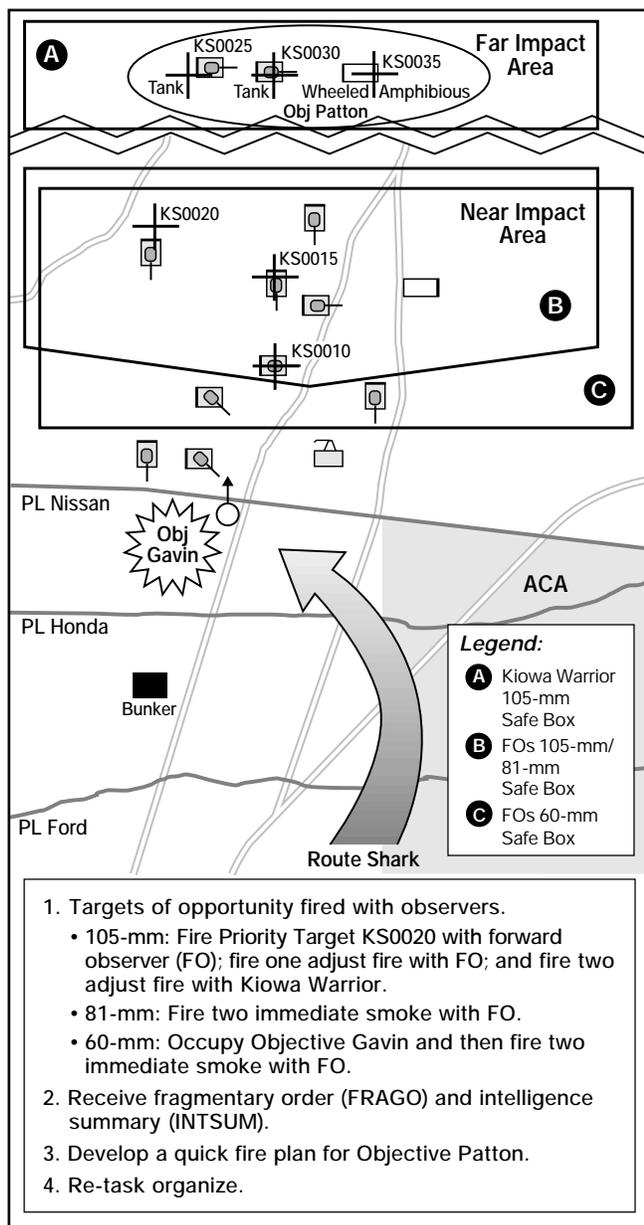


Figure 3: Scenario for Consolidate and Reorganize in OP 13 Exercise. After Objective Gavin is secured, fires disrupt and neutralize the enemy's ability to withdraw to supplemental positions. This phase ends when the lead elements cross PL Nissan. The safe boxes identify where in this scenario friendly forces can use indirect fires without endangering their troops.

Figure 2 shows the FSCM of an informal airspace coordination area (ACA) prohibiting the Kiowa Warriors from flying outside the designated area. The maximum ordinate of the 105-mm round is 850 meters; the maximum ordinate for the 81-mm mortar round is 1,100 meters. The A-10s for CAS will not fly below 4,700 feet above ground level (AGL).

When the remnants of the enemy formation approach (presented as targets of opportunity injects by the control cell), the company commander directs the FSO to fire the PPF. Moments later, the target erupts with a heavy volume of fire.

Once the objective has been secured, the company can reconstitute and reorganize (see Figure 3). During this phase of the exercise, the targets of opportunity can drive the integration and delivery of more indirect fires.

- Position firing units to avoid gun-target line conflicts with Army aviation and close air support (CAS).
- Select a lower charge to increase the angle of fall if aviation will fly under the gun-target line.
- Do not permit mortar overhead firing in peacetime.
- Ensure that coordination occurs for survey and meteorological data for battalion mortars.
- Coordinate with range control for a special impact zone and verify the target area survey from a surveyed laser position.
- Coordinate with explosive ordnance detachment (EOD) for a sweep of the maneuver areas if it extends into the impact area.
- Establish an administrative net to clear targets for firing to ensure absolute control of danger close fires.
- Compute the minimum safe distances (MSDs) by weapons system per AR 385-63 Policies and Procedures for Firing Ammunition for Training, Target Practice and Combat for each target to be fired to facilitate lifting and shifting of fires.

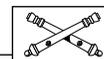
Figure 4: Training and Safety Considerations for Executing Live Fires in OP 13 Exercise

An example of some possible missions and the targets that are safe to fire (based on MSDs) are depicted in Figure 3. The consolidate and reorganization phase begins when Objective Gavin is secured. The purpose of fires is to disrupt and neutralize the enemy's ability to withdraw to supplemental positions. The FOs engage targets of opportunity with mortars and artillery. Kiowa Warriors fight the deep fight with 105-mm. Time and resource dependent, the lane can extend into a movement-to-contact, presenting targets of opportunity; and a hasty attack, requiring a quick fire plan; and culminate with a hasty defense.

Each of these scenarios can train the team to properly report, battle track, use priority targets and control the delivery, synchronization and echelonment of fires.

Safety. In an attempt to train as realistically as possible with danger close fires, the FCX and CALFEX present the potential for serious problems. Safety is vital to the successful execution of this exercise. There are several training and safety factors to consider when planning, coordinating and executing OP 13 exercise (see Figure 4).

Synchronizing fires and maneuver in the plan and ensuring the patience and discipline to execute the plan are the keys to employing effective indirect fires. Like no other exercise, OP 13 FCX/CALFEX provides this invaluable training. Working together, the combined arms team delivers timely, accurate, danger close fires and infantrymen gain an appreciation for what a devastating combat multiplier indirect fires are in the fight.



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