HANDBOOK

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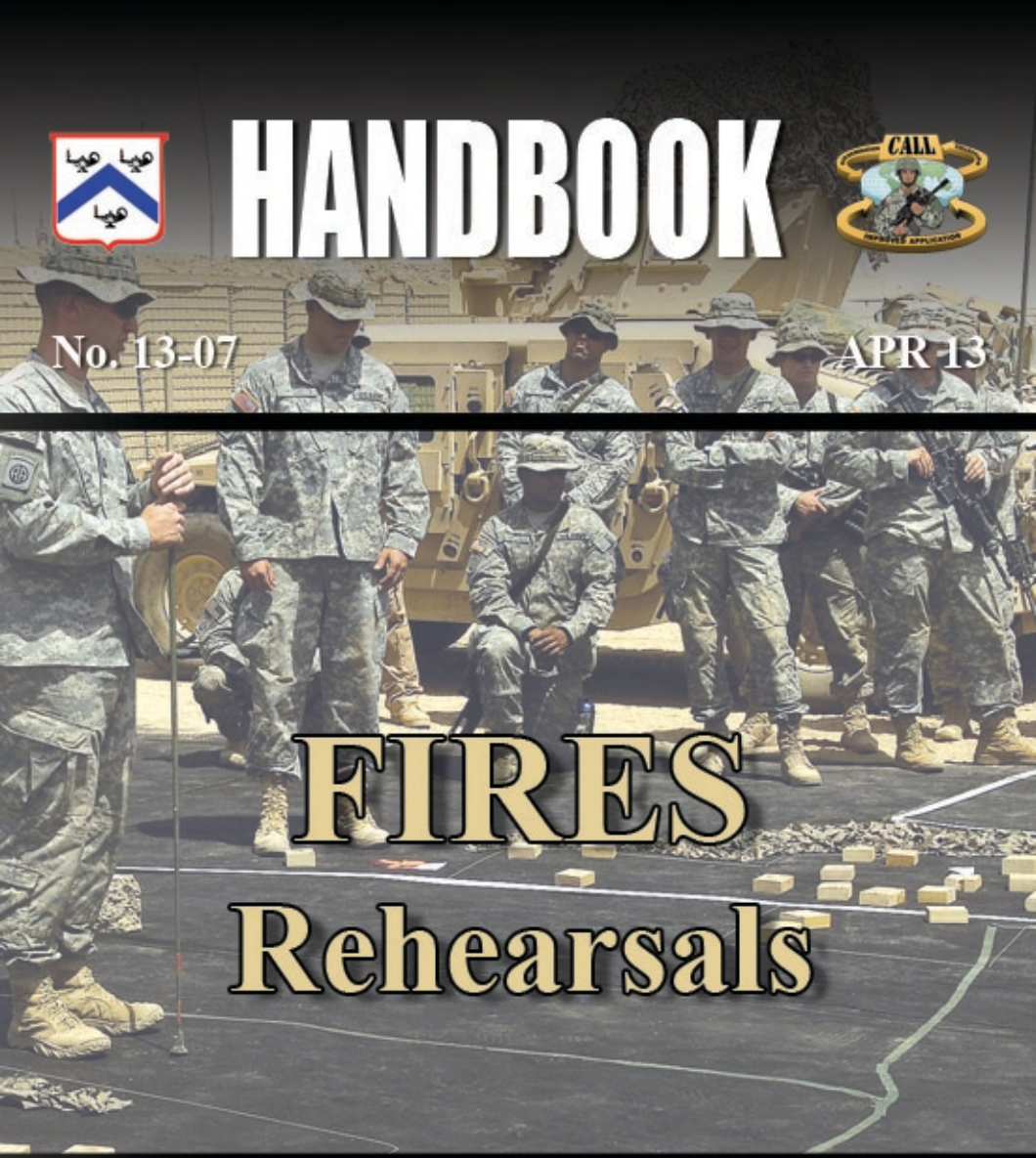

FIRES Rehearsals

Lessons and Best Practices

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CENTER FOR ARMY LESSONS LEARNED

SUPPORTING THE WARFIGHTER

Fires Rehearsals Handbook

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Fires Rehearsals Handbook

Table of Contents

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Introduction

"After conducting their infiltration and movement to the objective, the operational detachment alpha (ODA) finds itself trying to acquire a target with its organic stand-off optics (M22 binoculars, a spotting scope, and the telephoto lens of the KS-99). Problems begin to mount when they realize they cannot positively identify their target from their position 1,500 meters away. The detachment commander has no contact with the security team that is covering the avenue of approach to their flank. The security team has only one AN/PRC-126 radio. With his mind now racing, the detachment commander is trying to re-develop his plan "on the fly." The communication sergeant reports that the aircraft are on station. The ODA did not arrive to the laze site on schedule since they miscalculated the time needed to conduct movement. During movement, one member went down due to heat and the weight of his rucksack with mission load. No time is available to reposition. Does the detachment continue with the laze and call in the aircraft on what it thinks is the target? What are the implications if it is not the actual target? It would be nice to get closer and have an extra radio now! As actions on the objective start to unravel, the commander wishes now that he had paid closer attention to his rehearsal. If only he would have anticipated the problems he is now facing. He calls in the aircraft anyway, needlessly exposing the aircrew and the detachment to risk."

— LTC Metzgar (Retired)

Not me, you say! However, it happens more often than not at the Joint Readiness Training Center (JRTC) as detachments conduct mission analysis and execute the mission profile with few or no rehearsals. The actions described above are the experiences of retired LTC Metzgar when he was assigned as an observer/controller at JRTC.

Rehearsals are an integral part of the planning process. An effective rehearsal both practices and tests the plan.

Time availability is the critical element in conducting rehearsals. Warning orders provide subordinates enough lead time and details to synchronize their rehearsal schedules with battalion and higher rehearsals. A direct support field artillery (FA) battalion integrates its rehearsals into the maneuver force's rehearsal plan. An FA battalion with a reinforcing mission must coordinate rehearsals with the reinforced unit, while a general support battalion coordinates with its higher FA headquarters. All rehearsals should complement higher rehearsal plans. The principles for an effective rehearsal program include:

- Clearly identify rehearsal objectives (review commander guidance on type, scope, focus, and commander's intent for the rehearsal).
- Prioritize tasks and events focusing on fire support tasks and field artillery tasks.
- Establish high standards: What constitutes successful completion of a rehearsal event? Will the unit limit repetitious training to correct substandard tasks or to reinforce successful training?
- Conduct multi-echelon, synchronized rehearsals.
- Determine all rehearsal participants.

Chapter 1

Rehearsal Types

Each rehearsal type achieves a different result and has a specific place in the preparation timeline. The five types of rehearsals are:

- Confirmation brief.
- Backbrief.
- Combined arms rehearsal (CAR).
- Support rehearsals.
- Battle drill or standard operating position rehearsal.

Confirmation Brief

The confirmation brief is given by subordinate leaders to the higher commander immediately after receiving the operations order (OPORD). Subordinate leaders brief the commander on:

- Their understanding of his intent.
- Their specific task and purpose.
- The relationship between their unit's missions and the other unit's in the operation.

Who attends: The attendees of the confirmation brief vary little from the other rehearsal techniques. From the issuing headquarters, the commander and primary staff should attend the confirmation brief. The commander and S-3 are sufficient representation from the subordinate units. At the battery level, platoon and squad leaders give the confirmation brief. Because of its place in the military decision making process timeline immediately following the OPORD, all of the attendees are normally already present for the confirmation brief.

How long: The confirmation briefs should take no longer than 15 minutes. Leaders should be given a few minutes after the OPORD to talk to the staff. This allows the commanders to solicit information, but allows them to also set a time limit. The confirmation briefs should start on time. During the break, realign the chairs in the tactical operations center (TOC) if needed.

- Have all the players listen to the other confirmation briefs so they can get an understanding of what is happening around them. Ensure staff members are present if issues need to be clarified.

- If the best location for issuing the OPORD is overlooking the terrain on which it will operate, then the best place to perform the confirmation brief is at the same location. Use the same tools the scheme of maneuver was briefed on during the OPORD. This technique will provide instant feedback for the executive officer (XO)/ operations officer (S-3) to improve on the effectiveness of the OPORD presentation.
- Establish a logical order of the brief. One technique might be: reconnaissance (Scout/Combat Observation Lasing Team), maneuver units, fire support, maneuver control, air defense, military police, etc. Another technique would be: main effort, supporting effort, attachments, etc.

Technique: If time is severely limited, have the S-3 and XO listen to some of the briefs. For example, the direct support artillery battalion commander briefs the S-3 and fire support officer; the engineer commander briefs the S-3 and staff engineer; the military police, counter intelligence, etc., can brief the XO. Be careful when distributing the briefings. They may not be the best technique if the commander, S-3, or XO do not have the same understanding of the plan. Establish briefing points. Those who are briefing should know which key points the commander needs to know to ensure that it is understood what the unit was told to do. Although some points will be the same, most will be different depending on the battlefield operating system proponent.

Confirmation Brief Checklist: Place this format outline on a small chart near the map board so it can be easily followed:

- Explain the enemy's most probable course of action.
- Explain the higher commander's intent and concept.
- Explain any identified decisive points or actions.
- Unit task and purpose.

Backbrief

The backbrief is an event that occurs at the OPORD when subordinates repeat back to the commander what he wanted them to do and why.

The subordinate battery commanders and platoon leaders must identify all specified and implied missions and critical tasks, and give their restated mission. Subordinates should not leave the OPORD until this is accomplished. Everyone should understand:

- The mission.
- Commander's intent.
- Their role and timing to complete tasks.

This helps the commander clarify his intent early in the subordinates' tactical estimate process. It allows the higher commander to:

- Identify problems in his concept of the operation.
- Identify problems in a subordinate unit commander's concept.
- Reveal how subordinates intend to accomplish their mission.

The backbrief may be conducted throughout the military decisionmaking process, but is best used prior to the subordinate issuing his OPORD. The actual time must be established early (usually at the higher OPORD briefing) to ensure the subordinate has integrated the backbrief into his timeline so he will be prepared. The two most commonly used techniques used for the back brief are the sketch map and map rehearsal.

Who attends: The attendees at the backbrief vary little from the other techniques and are much the same as the confirmation brief. From the issuing headquarters, the commander and primary staff should be on hand for the backbrief. The commander, S-3, and fire support officer are sufficient representations from the subordinate units. At company level, the platoon/squad leaders and attached squad or section leaders provide backbriefs. If possible, have all the players listen to the other backbriefs so they can understand what is happening with the forces around them.

Technique: Use the same command post of the future (CPOF) area or concept sketch map used during the OPORD. The type of rehearsal being conducted and at which echelon will depend on whether an analog or digital briefback is conducted. If digital CPOF material was used, repeat the process using appropriately updated situational maps. If digital means are unavailable, add an acetate drop to the butcher chart or map. Have the subordinate commander brief and draw his concept on the common operating picture over the higher units' concept sketch with each unit using a different color. Have each unit write its task and purpose in the corresponding color on the drop. This provides a graphic product that stays in the TOC for later reference. Because of time and distance factors involved, it is not always possible to have everyone come together for the briefing simultaneously. When this situation occurs, this technique allows the briefer to at least see the concept of the other units that briefed earlier.

The higher commander travels to the subordinate TOCs or command posts using the CPOF common operating picture, butcher chart, or acetate drop in his high mobility multipurpose wheeled vehicles (HMMWV). When all the briefings are complete, the commander has one product with all the subordinate concept sketches drawn onto it. This provides a record for the TOC consisting of decisions and changes (such as approved graphic control measure modifications or a request to change a unit boundary).

How long: The backbrief by subordinate commanders should take no longer than 10 minutes each. The senior commander must remember and respect the subordinates' timeline. If the commander cannot get to every backbrief, then he must prioritize. The XO/S-3 could take the backbriefs from the supporting efforts or from the slice units such as the military police platoon or reconnaissance element.

Backbrief checklist: The commander establishes the sequence of briefings. Each backbrief should include:

- A copy of the subordinate units' graphics to allow the higher staff to begin the deconfliction process.
- An explanation of assumptions, task organization, mission statement, and concept cartoon.
- A discussion in detail of actions at critical points such as the breach or passage point. The commander may designate a sequence for discussing these events (i.e., passage, visual contact, direct fire contact, actions on objective) in order to present a common and easier to understand information sequence.
- A request for any additional resources or graphics changes.

Other backbrief uses:

- When instruction or planning guidance is given.
- When new commanders or staff members are assigned.
- When personnel are tired or fatigued.

CAR

The maneuver unit headquarters normally conducts the CAR, which is performed after subordinate units have issued their OPORD. The rehearsal ensures that subordinate plans are synchronized with those of other units and the plans achieve the intent of the higher commander. A CAR is particularly important when preparing for a complex breaching operation. It is very difficult to synchronize the actions of all the units involved in the operation.

Units should rehearse each phase of the operation, from the movement to and occupation of support by fire positions through the passage of follow-on forces. The rehearsal must ensure that each unit knows how its tasks are integrated into the overall plan in time and space. For example, the support force must understand how long the breach force expects the reduction effort to take so that the support force can ensure that its plan to suppress the enemy is adequate. At the same time, the breach force must understand its position relative to the support force when it is at the obstacle location. This ensures that the breach force, while moving to and reducing the obstacle, does not unnecessarily mask the fires of the support force.

Using a breaching operation as an example, the following should be addressed during its CAR:

- The latest information concerning the enemy obstacle system.
- Actions that the higher headquarters is taking to assist with the breaching operation.
- The time available for emplacing smoke and activating critical fire zones, including location and duration.
- The criteria for lifting/shifting direct and indirect fires.
- The commitment criteria for the breach force.
- The method used to reduce the obstacle system.
- The marking to be used. One technique is to have a marked lane near the rehearsal site. All participants should view and drive/walk through the marked lane when arriving at or departing from the rehearsal site. The marking system should also be shown at support rehearsals conducted by combat service support elements.
- The criteria and signals for the assault force to begin moving to created lanes.

Support Rehearsals

The support rehearsal helps synchronize each warfighting function with the overall operation. This rehearsal supports the operation so units can accomplish their missions. Throughout preparation, units conduct support rehearsals within the framework of a single or limited number of warfighting functions. These rehearsals typically involve coordination and procedure drills for aviation, fires, engineer support, or casualty evacuation. Support rehearsals and CARs complement preparations for the operation. Units may conduct rehearsals separately and then combine them into full-dress rehearsals. Although these rehearsals differ slightly by warfighting function, they achieve the same result.

Battle Drill or SOP Rehearsals

A battle drill is a collective action rapidly executed without applying a deliberate decision-making process. A battle drill or standard operating position rehearsal ensures that all participants understand a technique or a specific set of procedures. Throughout preparation, units and staffs rehearse battle drills and standard operating positions. These rehearsals do not need a completed order from higher headquarters. Leaders place priority on those drills or actions they anticipate to occur during the operation. For example, an M119A2 towed cannon platoon may rehearse a battle drill on reacting to an ambush while waiting to begin movement.

All echelons use these rehearsal types; however, they are most common for platoons, squads, and sections. They are conducted throughout preparation and are not limited to published battle drills. All echelons can rehearse such actions as a command post shift change, an obstacle breach lane-marking standard operating position, or a refuel-on-the-move site operation.

Chapter 2

Rehearsal Techniques

Techniques for conducting rehearsals are limited only by the commander's imagination and available resources. Generally, six techniques are used:

- Full dress.
- Reduced force.
- Terrain model.
- Sketch map.
- Map.
- Network.

These rehearsals can present operations security risks if the areas around the various rehearsal sites are unsecured. Assembled commanders and their vehicles can draw enemy attention. Units must sanitize, secure, or destroy any rehearsal materials after use. The sketch map and map rehearsal technique require less terrain than the full dress, reduced force, or terrain model rehearsal. A good site ensures that participants can easily find it, yet still stay concealed from the enemy. An optimal location overlooks the terrain where the unit will execute the operation.

Resources required for each technique range from broad to narrow. As listed from left to right, each successive technique takes more time and more resources. Each rehearsal technique also imparts a different level of understanding to participants.

Limiting Factors

- **Time**. The amount of time required to conduct (plan, prepare, execute, and assess) the rehearsal.
- **Echelons involved.** The number of echelons that can participate in the rehearsal.
- **Operations security risk**. The ease by which an adversary can exploit friendly actions from the rehearsal.
- **Terrain**. The amount of space needed for the rehearsal.

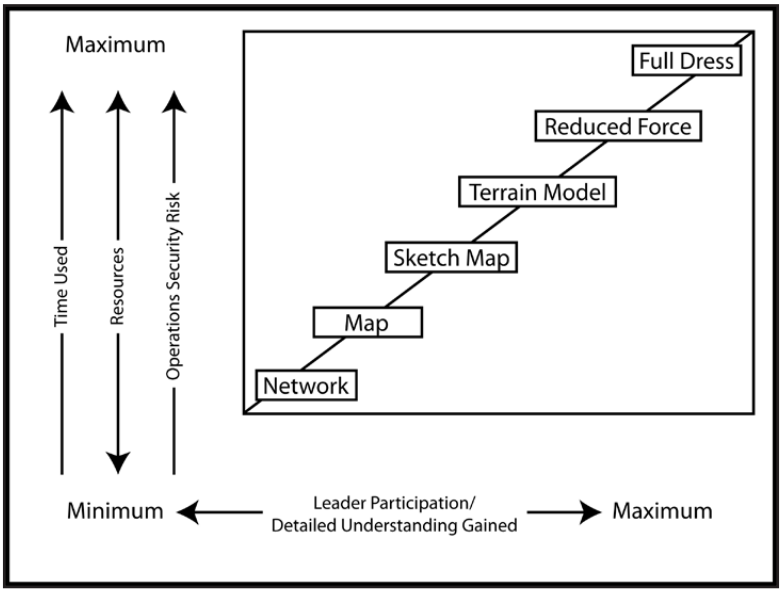

Figure 2-1

Full Dress

Conditions

- All personnel are available/attend.
- At every level, units should replicate as closely as possible their actions under realistic conditions.

Ideally, a unit would do a simulated combat rehearsal or a force-on-force multiple integrated laser engagement system rehearsal.

Example: A division or brigade river crossing.

When time is available, rehearse where there is good visibility on open terrain before gradually increasing to more realistic conditions. As the rehearsal goes full speed, conduct it with full combat loads in similar conditions of terrain and visibility.

- For a platoon-size element, all personnel should attend and all major tasks should be rehearsed.
- For a larger unit, such as a battalion task force, some tasks may have a reduced force type of rehearsal.

Reduced Force

Conditions

- A smaller number of personnel can attend the rehearsal.
- Units replicate their actions on mock-ups, sand tables, or pieces of terrain smaller than the actual operation.

If time is limited or the tactical situation does not permit everyone to attend, then the rehearsal is conducted with a reduced force.

Example: Only the commanders and key staff members, or at platoon level only the squad leaders.

A reduced-force rehearsal should be conducted prior to a full-force rehearsal when time is available to complete both.

Terrain Model

The terrain model rehearsal is the most popular rehearsal technique. It takes less time and fewer resources than a full-dress or reduced-force rehearsal. A standard terrain-model rehearsal takes a proficient brigade between one to two hours to execute. An accurately constructed terrain model helps subordinate leaders visualize the commander's intent and concept of operations. When possible, commanders place the terrain model in a location that overlooks the actual terrain of the area of operations. However, if the situation requires more security, then place the terrain model on a reverse slope within walking distance of a point overlooking the area of operations. The model's orientation should coincide with that of the terrain. The size of the terrain model can vary from small (using markers to represent units) to large (upon which the participants can walk). A large model helps reinforce the participants' perception of unit positions on the terrain.

Oftentimes, construction of the terrain model consumes the most time during this technique. Units require a clear standard operating procedure (SOP) stating how to build the model to ensure it is accurate and, large and detailed enough to conduct the rehearsal. A good SOP also establishes the staff's responsibility for building the terrain model and sets a timeline for its completion.

Because a terrain model is geared towards the echelon conducting the rehearsal, multi-echelon rehearsals using this technique are difficult.

Sketch Map

Commanders can use the sketch map technique almost anywhere, day or night. The procedures for the sketch map technique are the same as a terrain model rehearsal except a sketch map is used by the commander instead of a terrain model. Large sketches ensure all participants can watch as each participant walks through the execution of the operation. Participants move markers on the sketch to represent unit locations and maneuvers.

Sketch map rehearsals take less time than terrain model rehearsals and more time than map rehearsals.

Units gear a sketch map to the echelon that is conducting the rehearsal. Multi-echelon rehearsals using this technique are difficult.

Map

A map rehearsal, whether digital or manual, is similar to a sketch map rehearsal except with a map rehearsal, the map and operation overlay the commander uses to plan the operation are of the same scale.

The map rehearsal itself consumes the most time. A map rehearsal is normally the easiest technique to set up since it requires only maps and graphics for current operations.

Units gear a map rehearsal's operation overlay to the echelon conducting the rehearsal. Multi-echelon rehearsals using this technique are difficult.

Network

Units conduct network rehearsals over wide-area networks or local area networks. The command post of the future is a popular means of conducting a rehearsal using a network. Commanders and staffs practice these rehearsals by talking through critical portions of the operation over communications networks in a sequence established by the commander. The organization rehearses only the critical parts of the operation. These rehearsals use all information systems needed to execute that portion of the operation. All participants require working information systems, the operation order, and overlays. Command posts can rehearse battle tracking during network rehearsals.

This technique can be time efficient if units provide clear SOPs. However, if the organization's SOPs are unclear, or has units not operating on the network or without working communications, this technique can be time-consuming.

This technique lends itself to multi-echelon rehearsals. Participation is limited only by the commander's intent and the capabilities of the command's information systems.

If a unit executes a network rehearsal from current unit locations, the operations security risk may increase. The enemy may monitor the increased volume of transmissions that can potentially compromise information. To avoid such compromise, organizations should use different frequencies from those planned for the operation. Using wire systems is an option but does not exercise the network systems, which is the strong point of this technique.

Terrain considerations are minimal if a network rehearsal is executed from unit locations. If a separate rehearsal area is required, then considerations are similar to those of a reduced force rehearsal.

Chapter 3

Conducting the Rehearsal

Scheduling

The field artillery battalion must coordinate and synchronize its rehearsal schedule with the maneuver brigade combat team headquarters. Units can conduct rehearsals in a top-down or bottom-up approach. The bottom-up method better prepares subordinates for the higher headquarters' rehearsals. An example of bottom-up rehearsals is the nested rehearsal technique that is designed to facilitate bottom-up rehearsal planning.

Before the Rehearsal

Units should accomplish the following prior to the rehearsal:

- Determine objectives, standards, and the scope of the rehearsal.
- Rehearsal type and technique.
- The participants, date, time, and place for the rehearsal.
- Coordinate rehearsal schedules by unit echelons.
- Disseminate rehearsal information. Include a list of personnel, equipment, information, and/or materials they need to bring.
- Prepare rehearsal support items: models, maps, sketches, overlays, and copies of key documents (e.g., operation orders, matrices, or handouts).
- Review the agenda and identify decision points, branches, and repetition requirements.
- Validate time required with time available and modify as necessary.
- Coordinate adequate representation of any elements that cannot attend.
- View and prepare the rehearsal site as appropriate.

During the Rehearsal

The following steps provide a generic sequence of events.

Step 1: **Review Ground Rules** – Participants, sequences, times.

Step 2: **Deploy Enemy Elements** – Briefly describe key factors.

Step 3: **Deploy Friendly Elements** – Briefly describe key factors.

Step 4: **Initiate Action Sequence** – Enact friendly and enemy events.

Step 5: **Identify Decision Points** – Both friendly and enemy.

Step 6: **Identify End State** – For the course of action or branch.

Step 7: **Re-cock** – Repeat for all decision points, branches, and courses of action.

Step 8: **Rehearsal Review** – Identify and resolve outstanding issues.

The staff ensures all changes, coordination, and new requirements resulting from the rehearsal are clearly understood by all participants and documented by the recorder.

After the Rehearsal

The staff must translate modifications identified during rehearsals into verbal and/or written changes to previously published plans, orders, and even any standard operating procedure. After the rehearsal, actions may include the following:

- Revise the fire support plan, functional area strategic plan, schedules of fires, pre-planned and on-call target lists, rapid decisive operations, fire support tasks, and field artillery tasks.
- Notify key personnel not in attendance of the results from the rehearsal and all changes or issues.
- Disseminate a verbal or written fragmentary order and supporting documents as necessary to document and disseminate the changes.
- Coordinate changes with supporting/supported elements.
- If time is not available to properly incorporate all target changes, designate new targets as on-call targets.
- When time becomes available, conduct an internal/staff after action review to identify necessary changes to the rehearsal process and the standard operating procedure.

Chapter 4

The Nested Rehearsal

The nested rehearsal technique maximizes the use of time by initiating the rehearsal process immediately upon receipt of the first warning order (WARNO). The goals of the nested rehearsal are to:

- Ensure all types and echelons of rehearsals are prioritized.
- Ensure all rehearsals are fully time resourced.
- Ensure leader involvement in subordinate rehearsal processes.
- Provide command-driven, bottom-up refinement of all plans.
- Prevent procrastination during rehearsal processes.

Before implementing the nested rehearsal concept:

- Identify mission/task specific pre-combat checks and pre-combat inspections.
- Revise the battalion battle book to include detailed battery through section level rehearsals and drills.

> Standardization of battle drills in the battalion tactical standard operating procedure ensures all leaders will understand what type of rehearsals and standards are expected at critical phases of the planning process.

Several key principals guide the nested concept:

- Higher rehearsals occur last in the timeline.
- Lowest level drills occur first and as soon as possible.
- All orders and rehearsal date/time groups are directed by the higher headquarters.
- Stagger same-echelon rehearsals to facilitate leader supervision.
- Leaders and key personnel attend all subordinate echelon combined arms rehearsals.

Example: The Nested Rehearsal

This section uses the maneuver brigade and its field artillery (FA) battalion as an example in describing the nested rehearsal process.

Phase One: WARNOs

Initial brigade WARNOs go out giving all units broad mission, task and tentative operation orders (OPORDs), and rehearsal timelines. The FA battalion receives the brigade WARNO and issues its FA battalion WARNO which provides:

- The nature of the mission.
- Approximate date/time groups of the brigade OPORD and the FA battalion field artillery support plan (FASP).
- The tentative date/time groups of the brigade fire support and combined arms rehearsals.
- Battalion support rehearsals and battery rehearsals.
    - Battery commanders review the battalion WARNO and issue guidance concerning battery, platoon, and section rehearsals and anticipated field artillery tasks (FATs).
    - Platoon and section leaders review the commander's guidance and begin developing their rehearsal plans.

Phase Two: Planning/Preparation

The brigade and its FA battalion develop and wargame their plans and assemble the detailed information for OPORDs, fire support plans, and the FASP. The military decisionmaking process and sequential WARNOs will provide further clarification for mission, tasks, fire support tasks, and FATs. Rehearsal times may also change, which can cause a ripple effect in all rehearsal timelines. Synchronization of all higher parallel and subordinate rehearsal schedules is a major task for leaders at all levels.

Units should issue as much detailed information as possible before section and platoon rehearsals begin. The most critical information includes the type of tasks and the conditions under which they must be performed (e.g., night time, mission oriented protective posture gear at level 4, digital versus voice, Advanced Field Artillery Tactical Data System interface, and any changes from the standard operating procedure).

Phase Three: Rehearsals

The rehearsal process begins with section and platoon pre-combat checks, drills, and rehearsals, which should be attended to when possible by battery leadership. These lower level rehearsals may begin even before the FASP is published.

Lower rehearsals complement and help build toward higher rehearsals. Units may modify plans based on feedback from lower level rehearsals.

Staggering battery rehearsals can facilitate battalion observation. Additional section through battery level rehearsals can occur when the battery is not conducting its formal rehearsal. However, units must balance rehearsal time with planning and preparation time.

Nested Rehearsals and Example Timeline

The Nested Rehearsal by SFC Robert M. Castillo

"How would you guys like to come here to the National Training Center (NTC) and get at least five hours of sleep each night?" asked the NTC commander of a group of officers and noncommissioned officers attending the NTC Leader's Training Program. As expected, everyone in the room answered with a hearty and enthusiastic, "Yes, sir, we would!" Each month, this is how the NTC commander introduces units to the newest tool of the NTC: the nested rehearsal.

This section explains the basic concept of the nested rehearsal technique and how it enhances the time battalion/battery commanders and their noncommissioned officers spend on rehearsing the actual battle plan, and the platoon sergeant and his section chiefs in the preparation of the battery to accomplish its FATs.

The NTC trends indicate that units that do not conduct proper rehearsals are units that do not meet their directed FATs. Failure can be directly attributed to improper use of and/or improper allocation of time during the early stages of the orders process.

"The purpose of the nested rehearsal is to achieve a common relevant picture of the unit mission, enemy, terrain, troops, and time available, refined from the bottom up through each echelon of command."

— NTC Commander

The nested rehearsal can be defined as an orchestration of directed rehearsals that are mission specific in the absence of an official OPORD. Instead of waiting for the 80 percent solution, the nested rehearsal ensures that the wheels of motion are in place as the WARNO is being given to the respective battalion commanders and their staffs.

The goals of the nested rehearsal are:

- To ensure all types and echelons of rehearsals are prioritized.
- To ensure all rehearsals are fully time-resourced.
- To ensure leader involvement in subordinate rehearsal processes.

- To provide for command-driven, bottom-up refinement of all combined arms plans.
- To prevent procrastination of rehearsal processes until final refinement of tactical plans.

> "The idea behind the nested rehearsal is to manage the brigade's timeline in such a manner as to ensure subordinate units can conduct rehearsals. This allows a unit to rehearse early on and make any changes to a plan before a unit commits itself to a flawed effort that will not succeed."
>
> — NTC Commander

There are some requirements which must be accomplished prior to implementing the nested rehearsal concept. These requirements for the field artillery battalion and/or battery are:

- A revision of the battalion tactical standard operating procedure to include detailed battery rehearsals and battle drills.
- Mission-specific pre-combat checks and pre-combat inspections.

The above will ensure that the battalion can easily direct rehearsals based on the type of mission that will, in turn, allow the battery leadership to conduct rehearsals immediately after the initial WARNO.

The purpose of the detailed battle drill standing operating procedures:

- To ensure participants understand techniques or procedures.
- To allow leadership to select drills based on anticipated missions.
- To set standards that will identify weaknesses.
- To validate unit standing operating procedures.

The standardization of the battle drill will ensure that all leaders throughout the unit will understand what types of rehearsals are expected at critical phases of the planning process. To explain the concept of the nested rehearsal, first a few ground rules must be defined:

- Higher rehearsals occur last in the timeline.
- Lowest level (platoon/section) drills occur first and as soon as possible.
- All orders and rehearsals date/time groups are directed by the next higher headquarters.

- Same-echelon rehearsals are staggered to allow higher attendance.
- Leaders and deputies attend all subordinate echelon combined arms rehearsals.

Nested Rehearsal Timeline Example

Phase One: The brigade combat team's WARNO directs the following:

- The nature of the mission.
- The date/time group of the brigade combat team's OPORD.
- The tentative combined arms rehearsal for the brigade combat team.
- The battalion/task force (in this case, the FA battalion) OPORD no later than times.

Phase Two: The FA battalion conducts simultaneous operations based on the following graph:

FA Battalion Timeline: Nested Rehearsal

FA Battalion Timeline	Nested Rehearsal
1900	Brigade combat team WARNO with directed rehearsals.
2000	FA battalion WARNO.
2100	Mission analysis begins.
2300	Battery commanders receive WARNO.
0000	Mission analysis brief.
0300	Course of action development brief.
0500	Second WARNO with FASP time. Battalion wargame begins.

FA Battalion Timeline	Nested Rehearsal
0800	Reproduction of order/FASP rehearsal. Third WARNO with mission-specific rehearsal.
0900	Issue FASP.
1000	Battery commanders receive rehearsal times.
1200	C Battery rehearsal begins FAT 1. Battalion commander attends. B Battery rehearsal begins FAT 2. Battalion S-3 attends. Any changes sent to FA tactical operation center.
1500	FA battalion rehearsal begins.
1700	Brigade fire support rehearsal begins.
2100	Battery commander backbrief to battalion commander.

Concurrently, the FA battalion will confirm the following information to the brigade combat team at the OPORD:

- Times and locations of the FA battalion-directed rehearsals.
- Times and locations for the FA battalion support rehearsals.

The brigade combat team establishes who will attend the FA battalion/fire support rehearsals, and more importantly, with the above timeline, spells out to the battery commanders the basic requirements for all drills, rehearsals, and expected times for his attendance during the critical phases of the planning. This detailed information will enhance the amount of time the commander will have to access his battery's ability to accomplish his assigned FATs.

Phase Three: The Charlie Battery commander breaks down his timeline in this manner:

Charlie Battery Timeline: Nested Rehearsal

C Battery Timeline	Nested Rehearsal
1500	Battery is moving to follow-on position area route of movement in route.
2200	Charlie commander receives WARNO. Charlie Platoon leadership receive directed drills: 1. Roll Over. 2. React to indirect fire. 3. Preventive Maintenance Checks and Services.
2200-0400	Sleep plan implemented. Wake up at 0400.
0500	Second WARNO with FASP time. Charlie begins drills.
0800	Reproduction of order/FASP rehearsal. Third WARNO. Field artillery scatterable mines (FASCAM) 800 x 200 meters proposed for Charlie. FASCAM drills reviewed.
0900	Issue FASP.
1000	Brigade commander's driver sends rehearsal time to platoon leadership. Fire direction center received AD9000.
1200	C Battery rehearsal begins FAT 1. Battalion commander attends. B Battery rehearsal begins FAT 2. Battalion S-3 attends. Any changes sent to FA tactical operations center.
1300	FA battalion rehearsal begins.
1700	Brigade fire support rehearsal begins.

FA Battalion Timeline	Nested Rehearsal
1900	Brigade rehearsal begins.
2100	FA tech rehearsal FM. Brigade commander back brief to battalion commander.

Although in this case, Charlie Battery higher headquarters directed the type of rehearsals, and it is the Charlie Battery commander who must establish a realistic timeline to facilitate the backward planning needed to ensure the success of the battalion's timeline and preparation phases of operation. The brigade commander therefore must conduct his own mission analysis and course of action to ensure that his battery can accomplish its assigned FAT. This will allow the brigade commander to address the two-fold problems of what must be accomplished at the directed rehearsal and give mission-oriented guidance to allow his subordinates to focus and prioritize.

Phase Four: Mission-oriented guidance to subordinates.

The strength of the nested rehearsal lies in its ability to allow rehearsals at the lowest level to be conducted early on and to allow sufficient time to change any identified problems. What does this mean to the platoon leader and platoon sergeant? It means these leaders must be committed to the general principles of a rehearsal which include:

- Prioritizing tasks or events.
- Determining key participants and their role.
- Tying the battery mission to the battalion and/or brigade's intent.
- Facilitating the development of a stronger and more detailed standard operating procedure.
- Providing feedback to the commanders.

Providing feedback to the commander about the plan or perceived plan can only be accomplished if these junior leaders are prepared to conduct the rehearsals at the intended time. The very presence of the brigade commander at the battery rehearsals demonstrates that time is the most precious commodity to have on the battlefield.

The nested rehearsal also defines the role of the platoon leader and sergeant as the new standard bearers for all rehearsals conducted at the platoon level. It requires all leaders to commit to the following at all levels:

- Discipline of preparation.
- Strict time management.
- Battlefield circulation of the commander and his staff.
- Motivating confidence in the training value of the original plan.

It also allows more predictability down to the section level for its own timeline to allow soldiers time to eat and sleep, and attend to personal hygiene. These everyday tasks are essential to soldier morale, but are often not fulfilled because of the battalion's inability to send the entire plan to the batteries at a given time. The section chief will also understand what he is required to do the entire day because of the brigade commander receiving his timeline early in the planning process. With the nested rehearsal concept, preventive maintenance checks and services are given priority early on. This will enhance the rehearsal because the preventive maintenance checks and services will not affect the battery in the later stages of the planning process.

Conclusion: It is recommended that soldiers commit themselves to the nested rehearsal concept and the development of the battalion battle drill book to ensure that standards are set for all rehearsals based on specific missions and their requirements. This concept works and it has proved to be a great deal of success.

The book *Into the Storm* by Tom Clancy about GEN Fred Franks states how his units conducted nested rehearsals based on their pending deployment to the Gulf in 1991. During the Advance Warfighting Experiment, conducted at the NTC, GEN Franks' units of the 11th Cavalry Regiment conducted nested rehearsals prior to their fight with the soldiers of the opposing forces. This concept will allow soldiers at the lowest level to affect not only the plan but also the execution of that plan because their commanders will be allowed to see first-hand how the platoon leaders and sergeants will accomplish their assigned FATs based on the rehearsals.

And yes, everyone will get five hours of sleep each night.

Chapter 5

Field Artillery Tactical Rehearsal

Commanders who thoroughly plan rehearsals will dramatically improve their subordinates' understanding of an operation. Field artillery (FA) tactical rehearsals should therefore be conducted regularly in conformance with well-written and detailed standard operating procedures (SOPs), even when planning and preparations are compressed. They should be distinctly different from preceding wargames in the course of action analysis phase.

To improve combat rehearsal effectiveness, commanders must understand available rehearsal options contained in chapters one and two. They must know the cost in time and resources, operations security compromised risks, ambient light conditions, benefits in leader participation, and the resulting detailed understanding by their subordinates. To make rehearsals work to their advantage, commanders must train their staff in peacetime to extract the maximum benefit of each technique. Waiting for actual combat operations to practice will be too late.

Selected FA personnel (FA G-3s/S-3s, fire support officers, fire support teams, etc.) should, whenever feasible, attend and participate in combined arms rehearsals. Corps and division fire cells, and FA brigade commanders also stage and execute companion FA internal rehearsals to prepare for the effective delivery of FA fires.

The following information provides broad guidance and possible techniques for a field artillery tactical rehearsal. Timeframes mentioned are rough estimates based on lessons learned feedback from observations, insights, and other published documents. Actual rehearsal techniques, schedules, and time frames will vary depending on the situation and unit SOPs.

Who attends: Participants in the FA battalion rehearsal include the fires support coordinator, executive officer (XO), S-1, S-3, assistant S-3, S-2, S-4, fire direction officer, chemical officer, battery commanders with fire direction officers, radar technician, reconnaissance and survey officer, meteorological chief, battalion maintenance officer, public affairs, and signal officer. Whenever possible, the firing batteries and platoons, down to the individual section level, should participate.

How long: The entire rehearsal should take no longer than one to two hours. Participants must arrive on time and be ready to rehearse. The rehearsal must be planned into the battalion timeline to ensure all the key players are present.

FA Rehearsal Objectives

An effective FA rehearsal should:

- Identify problems and omissions, focusing on actions and decision points critical to mission accomplishment. Key personnel must be thoroughly familiar with restrictive and permissive fire support coordination measures, FA target lists and schedules, trigger points and events, movement/displacement plans, combat service support provisions, and command, control, and communications handover requirements.
- Confirm communications links among FA command post elements (tactical operations center, administrative-logistics operations center, etc.), force command posts, sensors, and firing elements.
- Confirm availability of FA delivery units and availability and type of ammunition stocks.
- Enhance coordination, synchronization, and improve battlefield awareness to assist in the preclusion of fratricide.
- Ensure a clear understanding of the rules of engagement and procedures for clearing fires.
- Refine the plan and make necessary changes if problems are found. Do not wargame and rewrite it. Significant changes late in the preparation phase can have severe consequences for the integration and synchronization of FA contributions.
- Ensure subordinate commanders explicitly understand their mission, how their missions relate to each other, and how each mission relates to the force basic and fire support plans.
- Indicate potential contingencies and conditions that might necessitate execution of branch plans.
- Determine movement and reaction times, routes, and the order of march for supporting FA assets in relation to maneuver operations.
- Increase the confidence of subordinate leaders and soldiers.
- Provide feedback to senior commanders.

Rehearsal Preparations

During rehearsals, the commander's role is crucial. He is the driving force in the interactive exchange of action, reaction, and counteraction that cements the plan in his subordinates' minds. He focuses his staff to create the rehearsal conditions that best replicate the future battle. Whether or not

the commander (or his chief of staff/XO or G-3/S-3) conducts the rehearsal himself, the effectiveness of the rehearsal is the commander's responsibility. The FA commander and staff should begin detailed rehearsal planning as soon as the force commander approves his preferred course of action.

In the first step of planning, the FA commander selects the rehearsal technique when he issues his planning guidance. This enables the staff to begin preparing the rehearsal site (selection, security, and construction as required). As part of the FA support plan approval process, the FA commander decides whether to conduct a rehearsal that includes the entire FA support plan or one that covers only critical portions. Reducing the rehearsal to critical portions saves time but might sacrifice comprehension of the whole plan. Time will be the driving factor in the commander's final decision.

The commander next refines the time plan that the staff prepares for the execution of the mission. The time plan consists of time/distance calculations of the unit's planned events. In an offensive operation, the time plan should begin with the first offensive action — when command posts, FA delivery units, and target acquisition assets displace from the assembly area to conduct a passage of lines and cross the line of departure. In a defensive operation, the time plan begins with an H-hour time stemming from the first expected enemy event and FA actions to counter enemy offensive operations.

In the next planning step, the commander and staff develop a short list of action, reaction, and counteraction events. They base this short list on their understanding of possible enemy actions projected during the wargame. This list becomes the script for the rehearsal and guides the commander through major events. Use of a decision support template, artillery gun module and/or FA synchronization matrix helps.

The last planning step is to conduct the rehearsal. The commander or his designated representative (chief of staff/XO, G-3/S-3) plays the role of controller and commander. He arranges the action by time or event just as he would in combat. The FA intelligence officer plays the role of the enemy FA commander (actions and reactions). This allows the unit to rehearse each critical phase, calling for the delivery of FA fires, practicing contingencies and branch plans, and verifying planning factors. One staff member becomes the recorder to document any adjustments to the plan or unresolved questions that the rehearsal may produce.

FA Rehearsal Script

Agenda: Use the fire support execution matrix.

Response sequence: Establish this in the unit SOP. Post the unit SOP where it is accessible to all participants.

Sequence of events: In step two, the S-2 should discuss mobility corridors/avenues of approach down to the company level. From the enemy perspective, he discusses the most likely course of action: enemy position, phases of fire, decision points, reconnaissance assets and missions, target acquisition capabilities, probable chemical/field artillery scatterable mines strike locations, and air assault locations. In step three, the units deploy onto the rehearsal product.

Battery commanders: State task and purpose (one time only), location, azimuth of fire, projected combat power, critical fire support tasks at that point of the operation, number of targets in file, alternate location and trigger for movement and required movement time, ammunition status, status-of-position improvement, and casualty evacuation plan for position.

Radar: State task and purpose (one time only), position, movement trigger, active zones, cueing corresponding to the zones, adjacent unit security, general schedule fire and radar support.

Combat trains commander: State task and purpose (one time only), location/trigger for movement, battalion aid station, ambulance exchange point, forward and main aid station locations, mass casualty mutual support plan, location of recovery and unit maintenance collection point, Class V status in combat trains, other combat service support triggers.

Field trains commander: State task and purpose (one time only), location, Class V on hand, ration cycle, long range patrol/time and location, targets supporting the brigade support area, combat service support triggers.

Battalion fire direction officer: Scheme of fires, target assignment/volume and desired effects, mobile enviromental team schedule/status, fire order standards, method of communication (voice or digital), primary and secondary observers.

Chemical officer: Mission-oriented protection posture status, decontamination assets, linkup points and location, dirty routes.

Signal officer: Retransmission location and movement triggers, emplacement times.

The result: At the conclusion of the FA battalion rehearsal, each member of the battalion team should leave with a clear understanding of required actions and critical field artillery tasks by phase or event. The FA battalion rehearsal synchronizes the battalion's command and control and the logistics and delivery assets to the brigade's scheme of fires, ensuring that the FA battalion can support the brigade commander's intent.

Chapter 6

Fire Support Tactical Rehearsal

Purpose: Fire support rehearsals verify synchronization of the fire support plans (FSPs) with the scheme of maneuver. They focus on the execution of fire support tasks (FSTs) and the fire support execution matrix (FSEM), the effectiveness of fire support coordination measures, and the timing and synchronization of all fire support efforts. Fire support rehearsals are most applicable to field artillery battalions.

Types: The two possible types of fire support rehearsals are:

- A maneuver brigade fire support rehearsal that involves the brigade staff and all other elements involved in the fire support process. It rehearses all FSTs, or when time is limited, those designated by the maneuver commander. This rehearsal can be used prior to the combined arms rehearsal (CAR) as a preparation tool, after the CAR to reinforce previous rehearsals, or to address weaknesses or changes identified during the CAR.
- A small-scale rehearsal that involves only the field artillery fire support personnel in fire support elements (FSEs), fire support teams (FiSTs), other certified joint fires observers (JFOs), Strykers, and possibly the field artillery battalion tactical operations center. This rehearsal focuses on how the fire support chain functions. Units use these rehearsals to prepare for other rehearsals to reinforce training or when time is limited.

Agenda: Use the FSEM and decision support template to focus on critical FSTs. Normally, prior to rehearsal, the decision support battalion fire direction officer will announce a consolidated target list. For each target or FST in the FSEM, address location, trigger point, engagement criteria, primary or backup observer and communications methods, clearance of fires, method of engagement, and attack guidance. CARs are excellent opportunities to identify terrain and route management issues. Ensure that the field artillery battalion S-3 presents field artillery movement plans. The sequence should usually mirror that of the CAR, following all necessary branches and decision points. However, the fire support coordinator or brigade fire support officer (FSO) may determine the specific sequence.

Who attends: Normally, the brigade sends the executive officer, S-3, S-4, S-2, brigade engineer, brigade FSO, and a representative from the forward support battalion. Whenever possible, the brigade commander should participate as well. Although this is an fire support rehearsal, the brigade S-3 must be closely involved to ensure synchronization of the FSP with the maneuver plan. Key representatives from the artillery battalion

should include the commander, S-3, S-2, battalion fire direction officer, radar supervisor, and multiple launch rocket system liaison officer. The artillery battalion commander normally conducts this rehearsal for the brigade commander. He is assisted by the brigade FSO. Key representatives from the maneuver elements include the S-3, FSO, Scout platoon leader, mortar platoon leader, and commanders when available. The senior noncommissioned officer of the brigade combat team/battalion effects cell, company fire support noncommissioned officer, JFOs, Army aviation liaison officer, and U.S. Air Force joint tactical air controllers (JTAC) should attend as well.

How long: Plan for one to two hours for the fire support rehearsal. There is seldom time to rehearse every target. Rehearse at a minimum the priority targets. The purpose of the fire support rehearsal is to ensure synchronization of the fire support effort within the unit and to ensure that the FSP supports the commander's intent. Fire support rehearsals normally occur after the CAR. Normally, the technique selected for the rehearsal is the radio technique, although the terrain model technique works as well. Performing the brigade fire support rehearsal up to the howitzer level is very effective, but carries a high cost in the amount of time required.

Technique: Units must gain proficiency on the radio technique at their home station. Attempting to perform this technique for the first time in the field is ineffective. Use the crawl, walk, run method. Try the technique face-to-face the first time to work out any complications. In the walk phase, move the players into different rooms within the same building; for the run phase, move them out to radios.

Rehearsal Script

Agenda: Use the FSEM. Prior to the rehearsal, the fire direction officer will usually announce the brigade consolidated target list by number or grid and will give any special instructions for the targets.

Response sequence: Establish the response sequence early and then review it in step one. Post the response sequence where it can be viewed by all participants.

Technique: Often when using the radio technique, it becomes difficult to keep the rehearsal moving because the players cannot see each other. Establishing a response sequence by standing operating procedure will help significantly.

Technique: Units respond as they are deployed front to rear. Units with no targets state so and backup observers are allowed to fire targets. The issue with this technique is that often backup observers call the target prior to the primary, but this technique ensures each "looker" rehearses every target

for the phase. Another technique is to fire the targets in the probable order in which they will be fired. This generally takes longer and often leads to confusion as to which unit follows in the sequence.

Unit actions: See box for an example.

Friendly Unit Actions

- When are the conditions or trigger met?
- Where is the target and from where will it be observed?
- Who is responsible for the target, the backup, which radio net and backup?
- What is the purpose of the target?
- What are the desired effects?

Sequence of events: If the fire support rehearsal occurs prior to the CAR, then the selection of branches that will rehearse is done by the fire support coordinator or the brigade FSO. If the fire support rehearsal occurs after the CAR, then the sequence in which the branches rehearse should mirror that of the preceding CAR.

Step two may include an intelligence update.

In step three, the fire support coordinator/brigade FSO states the fire support coordination measures in effect at the starting point of the rehearsal and provides last-minute guidance.

In step four, the artillery battalion S-2 advances the enemy or the friendly units, one critical event at a time. When the S-2 finishes describing the event, all fire supporters will execute the portion of the FSP triggered by the action.

Example Scenario

The following uses the previous deliberate attack example. The response sequence is front to rear; several units were left out for brevity. The sequence is: brigade FSE, Task Force (TF) Mech, TF 1-1, executing JFO, and S-2.

The direct support battalion S-2 states: It is now h+6. Support by fire (SBF) Mech has been established; all three enemy platoon positions are being obscured by smoke and suppressed by SBF Mech. TF 1-1 is moving on Axis Slam just approaching Precise Point (PP)1.

The brigade FSE would respond by saying: This is brigade FSE 2; I am backup for Target AE0005 vicinity NA123456. TF 1-1's closure on PP1 is the trigger to fire. I will observe the target from vicinity NA 345678 and call it on fire support net. The alternate method is…The target purpose is… The desired effects are…Break…Fire direction center, this is brigade FSE 2, fire target AE0005, over. The fire direction officer would repeat the call for fire and issue a message to observer to include time of flight. The observer would end the mission.

The TF Mech FSO would respond: No action.

The TF 1-1 FSO would respond: This is TF 1-1 FSO. I am the priority for Target AE0005. Our closure on PP1 is the trigger to fire Target AE0005, NA 123456. Alpha Team FiST will observe the target from vicinity NA 234567 and call it on the fire support net. The alternate method is…The target purpose is…The desired effects are…Break…Fire direction center, this is TF 1-1 FSO fire Target AE0005, over. The fire direction officer would repeat the call for fire and issue a message to observer to include time of flight. If the Alpha Team FiST is participating, then he would fire the target instead of the TF FSO. The observer would end the mission.

The JFO would state: This is the executing JFO, TF 1-1 closure on PP 1 is my trigger. Four A-10s with Mavericks are at Initial Point Cheese. The JFO would continue with magnetic heading from initial point to the target, target description, location, and elevation, method of marking location of friendly zones, egress, time from the initial point to the target. Any suppression of enemy air defense or airspace control areas or changes in support of close air support should be rehearsed with the close air support mission.

The S-2 states: Radar, this is S-2. TF 1-1 closure on PP 1 is my trigger, call for fire zone number 1, and critical friendly zones four, five, and six are in effect now. Cue radar schedule Jane, 12 minutes, over.

The radar would respond: S-2, this is radar, call for fire zone number one, and critical friendly zones four, five, and six are in effect. Cue radar schedule Jane, 12 minutes, out.

For each target, rehearse the address grid location, trigger point, engagement criteria, primary and backup observer and communications method, and the method of engagement and attack guidance. Ensure the battalion S-3 presents the battery movement plans and out-of-action cycles. Rehearse the radar target handoff and include clearing the fires at the task force level if task force FSOs are involved. Rehearsal of counter fire during the rehearsal of priority targets is necessary in order to rehearse priority targets. Have the radar insert one or two acquisitions per phase of the rehearsal.

The result: This rehearsal ensures the validity of the FSP. It illustrates why fires are needed in relation to specific maneuver events and what they are intended to accomplish. It crosswalks lookers with shooters and ties them to a condition or event on the battlefield. It will ensure that fire support performs the missions assigned and meets the commander's intent. When properly performed, the rehearsal practices the redundancy of observers and nets by having both the backup and primary shoot the targets. The FSP is validated with the scheme of maneuver, the commander's intent, and attack guidance. It ensures the obstacle plan is coordinated with the FSP and ensures that both these plans support the maneuver plan. Finally, it ensures the control measures for protecting and controlling aerial and ground forces are in place, integrated, and understood by all.

Chapter 7

Field Artillery Technical Rehearsal

The field artillery (FA) battalion conducts the technical rehearsal to verify that all of its subordinate firing units can support the brigade scheme of fires. This rehearsal should be conducted prior to the brigade fire support rehearsal, which will assist the S-3/battalion fire direction officer (FDO) in making changes to the scheme of maneuver if targets are out of range or to identify problems with target shift times. All special missions such as Excalibur, Smoke, and family of scatterable mines should be verified.

Who attends: The FA technical rehearsal is normally conducted by the battalion FDO. The participation level is down to the howitzer level. All attached or reinforcing firing units should also participate.

How long: A well-prepared technical rehearsal should take no longer than one hour.

Rehearsal scripts: The rehearsal should begin by polling each firing unit and equipment status, specifically verifying unit location, azimuth of fire, tube strength, and ammunition on hand. The FDO will restate the battalion fire order standard. The battalion FDO verifies the target list data by polling the fire direction centers (FDCs) by target number to ensure all units have the correct target list on hand. The last administrative data is to verify all known fire support coordination measures (FSCMs). The actual rehearsal structure will follow the brigade combat team designated events or phases. The battalion FDO initiates each mission by announcing the brigade combat team trigger and target number in the scheme of fires sequence. A battery FDO, specified by the battalion FDO, will follow up with the volume of fires and units to fire throughout the rehearsal.

The result: Assignment of units to fire and volume of fire as rehearsed during the FA battalion rehearsal will be verified and refined. The FA battalion will now be prepared to participate in the brigade combat team fire support rehearsal. Any issues such as shift times, range limitations, angle of fire, and ammunition distribution should have been identified and resolved.

Purpose: FA technical rehearsals are used to ensure that the functional area strategic plan properly addresses the FA technical fire direction and to exercise the technical fire direction process. FA technical rehearsals focus on:

- The technical execution of field artillery tasks (FATs) and the field artillery support matrix (FASM): sensor-to-shooter links and primary and backup methods (FDC focus). Rehearsal of backups includes evaluation of reactions to catastrophic loss of an FDC (battalion or battery) and loss of digital or voice capability.
- Integration of tactical and technical fire control processes and computation of firing solutions to include the communication and interaction between fire support, fire direction, and firing elements.
- Identification of technical fire direction issues: high angle fire, minimum safe distance, target, munitions, range, and FSCM conflicts.
- Digital database verification: setup, communications, positions, FSCMs, target and attack guidance, mission routing and intervention points, target list, and scheduling data.
- Digital concept of operations: minor and catastrophic.
- Digital interface requirements: Advanced Field Artillery Tactical Data System (AFATDS) version differences and any other digital systems.
- Integration of voice and digital operations to include backup plans.

Types: FA technical rehearsals can include the following:

- A robust, detailed digital rehearsal designed to exercise the entire FA digital communications system, verify databases, and ensure interoperability of different digital systems. This rehearsal verifies that all nodes can effectively communicate, all message formats can be passed, and fire mission routing will execute as required.
- AFATDS. **Note:** In AFATDS, a unit cannot rehearse a plan digitally until it is implemented into the current situation. Before each phase can be rehearsed, it must be implemented by all AFATDS operational facilities involved in the rehearsal.
- A rehearsal focused on technical fire direction, to include the fire support/operations/FDC mission routing/handoff process. While fire support personnel may be involved, the focus is on the exchange of fire mission data and timing issues rather than the tactical decision-making process.
- An FDC rehearsal from the battalion FDC down to firing sections.

Agenda: The agenda and sequence will vary depending on the focus. In a technical rehearsal with a fire direction focus, the FASM and FATs may be the key reference. For rehearsals focused on digital operations, the unit may use a combination of the FASM and a digital rehearsal standing operating procedure. The latter would identify the major digital communications events to be rehearsed and the database elements to be verified.

Levels of Digital Rehearsals

Level III Rehearsals

Level III full-scale digital dress rehearsals are conducted either in conjunction with combined arms, FA tactical rehearsals or completely separate. They involve the use in real-time of fire support platforms over actual or similar terrain. These rehearsals are generally conducted in a deliberate/hasty defense or limited offense. Level III rehearsals are resource-intensive and, although the most desirable, rarely feasible at FA brigade or battalion level. Some of the more significant benefits include:

- Database verification for fire support digital systems.
- Validation of the supporting communications architecture. Mobile digital platforms spread over a geographic area present unique challenges that can be difficult to replicate with static platforms in an assembly area.
- Verification of the maneuver terrain management plan and time-space relationships between FATs and FA movement plans. The intent is to ensure units are in place to mass during critical periods.
- Rehearsal of triggers on the ground, both for movements and for the initiation of fires by primary and backup sensors or observers.

Level II Rehearsals

Level II digital rehearsals are conducted separate from combined arms/FA tactical rehearsals. They are conducted from actual fighting position areas, where "electronic movement" of units and icons in the AFATDS situation screen would adversely affect the current mission. This may be a partial digital rehearsal in that only actual targets within range of friendly assets can be rehearsed and processed between AFATDS operational facilities. Targets outside the range of friendly assets cannot be processed in AFATDS, even for rehearsal purposes. For these targets, their information should be verified by "voice" (e.g., target number, grid, trigger, attack guidance, firing units, etc.).

Level I Rehearsals

Level I full digital rehearsals are conducted separate from combined arms/FA tactical rehearsals similar to a normal command post exercise from an assembly area. The database can be rehearsed "electronically," moving units and icons in the AFATDS situation screen. Movement of the icons on the screen gives rehearsal participants an "electronic visualization" of how the operation will unfold and how the fire support plan will be integrated. However, before conducting this type rehearsal, units must be certain that it will not interfere with "real world" missions.

Digital Rehearsal Challenges

The effect of automatic data distribution during digital rehearsals is potentially far reaching. As digital systems are designed to disseminate information automatically, safeguards must be in place to separate digital rehearsals from "real world" events. In Level I and III rehearsals, AFATDS operational facilities "electronically move" unit icons in AFATDS from assembly areas or battle positions into planned battle positions to range targets for the rehearsal. **Note:** To process targets in AFATDS, units must be able to range respective targets. Preferably, rehearsal missions must be distinctly separate from "live missions." Otherwise, digital rehearsal missions and associated "exercise" messages should not be automatically passed to addressees unless they are rehearsal participants or are aware of the rehearsal and able to differentiate between "real" and "rehearsed" information. Alternatively, non-participating net members may have to leave the net for the duration of the rehearsal.

Safeguards must also be taken to prevent live rounds from being fired at rehearsal targets while maintaining the capability to react to real threats. Units must retain the ability to terminate or postpone rehearsals instantly when a "real world" fire mission needs to be processed.

Although AFATDS permits dividing plans into distinct phases, creating and switching among multiple phases during rehearsals create the potential for introducing database errors. Therefore, phases within a plan should be kept to a minimum and created only when necessary.

Chapter 8

Fire Support Frequency Modulated Technical Rehearsal

General. The brigade fire support frequency modulated (FM) rehearsal is conducted to verify the same information that the fire support rock drill confirms and it also verifies the communication links for the mission execution. **Note:** The FM rehearsal will usually be conducted on the brigade fire support net. If the brigade is operating in a single channel mode, an alternate frequency will be used for the rehearsal. The FM rehearsal will verify:

- The target list, including any refined target locations.
- The observation plan, including primary and alternate observers, primary and alternate observation posts, the task and purpose of each target, and the engagement criteria for each target.
- Triggers for all fire support events.
- Sequence and timing of all events, ensuring that enough time is allotted between events.
- Firing unit assignment and volume of fire, ensuring that the volume of fire is sufficient to meet the commander's intent.
- Priority of fires by phase of the operation.
- Priority of targets, ensuring that everyone understands the priority of engaging targets if two targets must be attacked simultaneously.
- Primary and alternate communications nets including an anti-jam plan.
- Fire support coordination measures, ensuring they are deconflicted.
- That all brigade obstacles are covered by fire/targeted.

Participants. The following will participate in the brigade fire support FM rehearsal:

- Fires battalion commander/fire support coordinator (FSCOORD).
- Brigade combat team fire support officer (FSO).
- Assistant brigade FSO.
- Battalion FSOs.
- Company/team FSOs.

- Joint fires observers (JFOs) or forward observers (FOs).
- Fires battalion S-3.
- Fires battalion fire direction officer (FDO).
- Platoon FDOs.
- Brigade combat team air liaison officer.
- Joint tactical air controller (JTAC).
- Brigade aviation element representative.
- Q36/Q37/53 radar section leaders.
- Any other personnel who have responsibility to execute a portion of the fire support plan.

Although not participating in the brief, it is highly suggested that all senior noncommissioned officers of the brigade combat team/battalion effects cell, company fire support noncommissioned officer, or participating elements observe/listen to the FM rehearsal.

Procedures

- Net call. The FM rehearsal begins with the brigade combat team assistant FSO conducting a net call. Each battalion FSO will ensure that the company FSOs and JFOs are present. Stations will respond in their established order. At the completion of the net call, the fires battalion FDO will give a time hack using Global Positioning System time as the standard.
- Brigade combat team assistant FSO reviews the rehearsal agenda.
    - Fire support task review is in accordance with scheme of fires.
    - FSCOORD guidance.
    - Consolidated target list review (fires battalion FDO).
    - Fire support coordination measure, priority of fires by phase.
    - Field support team execution, (target, trigger, location, observer, delivery systems, attack guidance, communications network).
    - No-fire area review.

- Critical friendly zone and call for fire zone review.
- Issues.
- Digital execution.

- Fire support tasks. The brigade combat team FSO will then state the number of phases in the operation and designate the fire support tasks for each phase in accordance with the scheme of fires. At this time, the FSCOORD may provide any additional guidance as required. Following the brigade combat team fire support tasks, each battalion FSO will state his battalion fire support tasks.
- FSCOORD guidance. The FSCOORD will review the overall mission for the fires battalion and the fires warfighting function. He will highlight the keys for success by focusing on fire support task guidance.
- Target list review. The FDO will then announce the brigade combat team's consolidated target list by target number, grid, munitions, volume of fire, and special instructions. **Note:** It is crucial that target refinement is accomplished by subordinate level fire supporters prior to the brigade combat team's integrated rehearsal so that any changes were synchronized prior to the brigade combat team FM rehearsal. After completion of the target list, all major stations (brigade combat team FSO and battalion FSOs) will acknowledge receipt. Any elements requiring clarification of the target will ask for that clarification at this time.
- Priority of fires and fire support coordination measures. After the target list has been verified, the brigade combat team assistant FSO will state the fire support coordination measures that are in effect for that phase and priority of fires by phase.
- Fire support task execution. The brigade combat team FSO and/or the brigade combat team S-2 will then drive the rehearsal by stating the sequential critical enemy events or critical friendly events and the associated time with those events.
  - Target execution. Target execution will be rehearsed in accordance with the scheme of fires. The battalion FSOs will announce activation and deactivation of their associated radars zones.
    - When appropriate, the primary observer (or battalion FSO if that observer is not required to be on the network) executes his assigned target by stating:

- ♦ Target, trigger, location, observer, delivery system, attack guidance, communication network and send the call for fire.

- ○ The fires battalion FDO will repeat the call for fire, and then issue a message to the observer to include the time of flight. He will also read the primary shooter, volume of fire, and ammunition for the fire support team.

- ○ Following the message to the observer, the alternate observer will announce his responsibility for execution:

  - ∗ Target, trigger, location, observer, delivery system, attack guidance, communication network, and the number of call for fire sent.

- No-fire area review. The consolidated no-fire area list will be read and reviewed by the brigade combat team fire support element to ensure that all battalion fires cells, JFOs, JTACs, and firing units have an accurate list. Following the review, all agencies may add or delete no-fire areas.

- Counter-fire radar zone management. Just as with all other fire support actions, cueing the radar, refinement of zone location, and activation of zones, should occur at the appropriate trigger during the rehearsal. The brigade combat team targeting officer will review the critical friendly zones, call for fire zones, and activation triggers.

- Issues and conclusion of the FM rehearsal. After all actions have been rehearsed in the sequence that they will be executed in and all the objectives of the rehearsal have been met, the brigade combat team FSO will clarify any remaining issues. The FSCOORD will then restate his guidance as needed and provide concluding remarks.

- Digital execution and sensor to shooter. At the completion of the voice rehearsal, a digital rehearsal of the fire support plan will be done from sensor to shooter. Observers responsible for target execution will execute their targets digitally.

Chapter 9

Field Artillery Combat Service Support Rehearsal

Purpose

Combat service support (CSS) rehearsals verify and reinforce field artillery CSS planning and synchronization and ensure that the functional area strategic plan and the field artillery support matrix (FASM) address essential CSS tasks. Field artillery CSS rehearsals address:

The CSS is required to support the execution of field artillery tasks and the FASM — primary and backup methods.

- Positioning and movement of the battalion trains — synchronization with the FASM and higher and subordinate CSS locations and operations.
- Ammunition distribution, positioning, expenditure, and resupply.
- Maintenance and recovery operations — when, where, how.
- Refueling and resupply requirements — when, where, how.
- Medical treatment and evacuation procedures.
- Enemy prisoner of war procedures.

Types

Field artillery battalion CSS rehearsals may include:

- A robust rehearsal involving the tactical operations center, administrative and logistics operations center, battalion support operations center, CSS leaders, firing batteries, reinforcing units, and possibly the brigade fire support element.
- A limited rehearsal conducted in the administrative and logistics operations center, by the executive officer, and involving primarily leaders from the CSS sections.

Agenda

Useful guides include a CSS rehearsal checklist and the FASM; however, the agenda may vary depending on the focus of the rehearsal.

Chapter 10

Integrated Rehearsal

Units may integrate fire support and field artillery tactical, technical, and combat service support (CSS) rehearsals to maximize use of limited time. The commander will determine the amount of focus that should be placed on each major area.

At a minimum, integrated rehearsals usually:

- Verify fire support tasks (FSTs)/field artillery tasks (FATs) planning to include:
  - Each high-payoff target, its number, location, purpose, and priority.
  - Primary and triggers, observers, sensors, and alternate triggers.
  - The unit that will deliver fires.
  - Attack guidance — shell-fuse combination, number of volleys, and units to fire.
  - Method of engagement is specified — time on target, at my command, when ready.
  - Time-space relationship between unit response time, duration of fires, and scheme of maneuver.

Rehearse the mission thread from the observer or sensor to the firing unit for each FST/FAT. Validate the following:

- Primary and backup sensor-to-shooter communication links are coordinated with supported units, observers (ground/air), fire support elements, fire direction centers, firing sections, radars, and intelligence assets.
- Correct solution of the fire support system.
- Attack methods (shell, fuse, unit).
- The use of intervention points in automated fire support systems.
- Correct function of mission routing information.
- Coordination and deconfliction of targets if required.

Identify key field artillery actions that support each phase to include:

- Movement requirements, especially the trigger events that initiate movements and their relationship with the fire support tasks FSTs and FATs. Discuss survivability and criteria of movements.
- Verification of time-space relationships between FATs and field artillery movements to ensure units are in position to mass together during critical periods and to verify the terrain management plan.
- Logistic requirements, especially CSS tasks.
- Verify fire support coordination measures (FSCMs) and coordination requirements for critical targets.
- Review who has priority of fires during each phase.

Integrated Digital and Tactical Fire Support/Field Artillery Rehearsals

The Advanced Field Artillery Tactical Data System (AFATDS) offers a unique ability to merge digital and fire support/field artillery tactical rehearsals. The following is an example of such a merger. Individual preferences should be reflected in unit standard operating procedures emphasizing particular strengths and weaknesses.

The rehearsal net must allow all participants to eavesdrop and follow the rehearsal. Regardless of the net, the force fire support center/fire support element should be the net control station and run the rehearsals. To provide the conceptual framework, the rehearsal should begin with a brief description of the concept of operations and supporting scheme of fires followed by an fire support center/fire support element phase-by-phase overview of the operation. Topics to be addressed for each phase include the following:

- Friendly/enemy actions that initiate each phase (fire support center/fire support element).
- Enemy situation (force artillery G-2/S-2). For level I and III rehearsals, the G-2/S-2 moves enemy icons on the AFATDS current situation screen and sends a status report either to selective units or to a distribution list to update all operational facilities.
- Concept of operations (force fires cell/fire support element).
- Commander's intent for fires during that phase (force fires cell/fire support element).
- FSTs for that phase. **Note:** FSTs are related in time and space.

Therefore, FSTs should be discussed in relation to each other. For AFATDS purposes, FSTs identify who has priority of fires. Information should also include:

- Target number and grid coordinates.
- Purpose of the target.
- Primary and alternate triggers to include periods of limited visibility and description of how triggers are related in time and space to the scheme of maneuver.
- Primary and backup sensors/observers.
- Delivery unit(s).
- Time-space relationship between unit response time, duration of fires, and scheme of maneuver.
- After review of each FST, missions should be processed from the sensor/observer to the delivery system level. In particular, validate the following:
  - Mission value.
  - System preferences (AFATDS selects the fire support system).
  - Delivery system attack methods (shell, fuse, unit, volleys).
  - Proper intervention points functioning.
  - Target coordination requirements.
  - Mission routing functions.
- After review of each FST, the force artillery G-3/S-3 should discuss field artillery actions and FATs to support each phase to include:
  - Movements required during the phase, their triggers, and their relationship in time and space with FSTs. For Level I and III rehearsals, displacing firing units will change their grid locations and send their status to selected units or a distribution list to update AFATDS operational facilities.
  - Logistic requirements in the phase.

Appendix A

Rehearsal Responsibilities by Position

This discussion addresses responsibilities for conducting rehearsals based on the combined arms rehearsal. Responsibilities are the same for support rehearsals.

Planning

Commanders and chiefs of staff (executive officers at lower echelons) plan rehearsals.

Commander

Commanders provide certain information as part of their guidance during the initial mission analysis. Commanders may revise the following information when they select a course of action:

- Rehearsal type.
- Rehearsal technique.
- Location.
- Attendees.
- Enemy course of action to be portrayed.

Chief of Staff (Executive Officer)

The chief of staff or executive officer ensures all rehearsals are included in the organization's time-management standard operating procedure (SOP). The chief of staff's or executive officer's responsibilities include:

- Publishing the rehearsal time and location in the operation order or warning order.
- Conducting staff rehearsals.
- Determining rehearsal products based on type, technique, and mission variables.
- Coordinating liaison officer attendance from adjacent units.

Preparation

Everyone involved in executing or supporting the rehearsal has responsibilities during preparation.

Commander

Commanders prepare to rehearse operations with events phased in proper order from start to finish, which often proves difficult under time-constrained conditions. Commanders:

- Identify and prioritize key events to rehearse.
- Allocate time for each event.
- Perform personal preparation.
- Task organization completeness.
- Personnel and materiel readiness.
- Organizational level of preparation.

Chief of Staff (Executive Officer)

The chief of staff or executive officer, through wargaming and coordination with the commander:

- Prepares to serve as the rehearsal director.
- Coordinates time for key events requiring rehearsal.
- Establishes rehearsal time limits according to the commander's guidance and mission variables.
- Verifies rehearsal site preparation. A separate rehearsal site may be required for some events, such as a possible obstacle site. A good rehearsal site includes:
    - Appropriate markings and associated training aids.
    - Parking areas.
    - Local security.
- Determines the method for controlling the rehearsal and ensuring its logical flow, such as a script.

Subordinate Leaders

Subordinate leaders complete their planning. This planning includes:

- Completing unit operation orders.
- Identifying issues derived from the higher headquarters' operation order.

- Providing a copy of their unit operation order with graphics to the higher headquarters.
- Performing personal preparation similar to that of the commander.
- Ensuring that they and their subordinates bring all necessary equipment.

Conducting Headquarters Staff

Conducting headquarters staff members:

- Develop an operation order with necessary overlays.
- Deconflict all subordinate unit graphics. Composite overlays are the first step for leaders to visualize the organization's overall plan.
- Publish composite overlays at the rehearsal, including at a minimum:
    - Movement and maneuver.
    - Intelligence.
    - Fires.
    - Sustainment.
    - Signal operations.
    - Protection.

Execution

During execution, the commander, chief of staff, assistants, subordinate leaders, recorder, and staff from the conducting headquarters have specific responsibilities.

Commander

Commanders conduct the rehearsal just as they conduct the operation. They maintain the focus and level of intensity, preventing the potential for subordinate confusion. Although the staff refines the operation order, it belongs to the commander. The commander uses the order to conduct operations. An effective rehearsal is not a commander's brief to subordinates. It validates synchronization — the what, when, and where — of tasks that subordinate units perform to execute the operation and achieve the commander's intent.

Chief of Staff (Executive Officer)

Normally, the chief of staff or executive officer serves as the rehearsal director. The officer who serves as director ensures that each unit will accomplish its tasks at the right time and cues the commander to upcoming decisions. The chief of staff's or executive officer's script is the execution matrix and the decision support template. The chief of staff or executive officer as the rehearsal director:

- Starts the rehearsal on time.
- Has a formal roll call.
- Ensures everyone brings the necessary equipment, including organizational graphics and previously issued orders.
- Validates the task organization. Linkups must be complete or on schedule and required materiel and personnel must be on hand. *The importance of this simple check cannot be overemphasized*.
- Ensures sustaining operations are synchronized with shaping operations and the decisive operation.
- Rehearses the synchronization of combat power from flank and higher organizations. These organizations often exceed communications range of the commander and G-3 (S-3) when they are away from the command post.
- Synchronizes the timing and contribution of each warfighting function.
- For each decisive point, defines conditions required to:
    - Commit the reserve or striking forces.
    - Move a unit.
    - Close or emplace an obstacle.
    - Fire at planned targets.
    - Move a medical unit, change a supply route, and alert specific observation posts.
- Disciplines leader movements, enforces brevity, and ensures completeness.
- Keeps within time constraints.
- Ensures that the most important events receive the most attention.

- Ensures that absentees and flank units receive changes to the operation order and transmits changes to them as soon as practical.
- Communicates the key civil considerations of the operation.

Assistant Chief of Staff, G-3 (S-3)

The G-3 (S-3) assists the commander with the rehearsal. The G-3 (S-3):

- Portrays the friendly scheme of maneuver.
- Ensures subordinate unit actions comply with the commander's intent.
- Normally provides the recorder.

Assistant Chief of Staff, G-2 (S-2)

The G-2 (S-2) portrays the adversary forces and other variables of the operational environment during rehearsals. The G-2 (S-2) bases actions on the enemy course of action that the commander selected during the military decision-making process. The G-2 (S-2):

- Provides participants with current intelligence.
- Portrays the best possible assessment of the enemy course of action.
- Communicates the adversary's presumed concept of operations, desired effects, and end state.
- Explains other factors of the operational environment that may hinder or complicate friendly actions.
- Communicates the key civil considerations of the operation.

Subordinate Leaders

Subordinate unit leaders, using an established format, effectively articulate their units' actions and responsibilities as well as record changes on their copies of the graphics or operation order.

Recorder

The recorder is normally a representative from the G-3 (S-3). During the rehearsal, the recorder captures all coordination made during execution and notes unresolved problems. At the end of the rehearsal, the recorder:

- Presents any unresolved problems to the commander for resolution.

- Restates any changes, coordination, or clarifications directed by the commander.
- Estimates when a written fragmentary order codifying the changes will follow.

Conducting Headquarters Staff

The staff updates the operation order, decision support template, and execution matrix based on the decisions of the commander.

Assessments

The commander establishes the standard for a successful rehearsal. A properly executed rehearsal validates each leader's role and how each unit contributes to the overall operation — what each unit does, when each unit does it relative to times and events, and where each unit does it to achieve desired effects. An effective rehearsal ensures commanders have a common vision of the enemy, their own forces, the terrain, and the relationship among them. It identifies specific actions requiring immediate staff resolution and informs the higher commander of critical issues or locations that the commander, chief of staff (executive officer), or G-3 (S-3) must personally oversee.

The commander (or rehearsal director in the commander's absence) assesses and critiques all parts of the rehearsal. Critiques center on how well the operation achieves the commander's intent and on the coordination necessary to accomplish that end. Usually, commanders leave the internal execution of tasks within the rehearsal to the subordinate unit commander's judgment and discretion.

Rehearsal Details

All participants have responsibilities before, during, and after a rehearsal. Before a rehearsal, the rehearsal director states the commander's expectations and orients the other participants on details of the rehearsal as necessary. During a rehearsal, all participants rehearse their roles in the operation. They make sure they understand how their actions support the overall operation and note any additional coordination required. After a rehearsal, participants ensure they understand any changes to the operation order and coordination requirements and receive all updated staff products.

Commanders do not normally address small problems that arise during rehearsals. Instead, the G-3 (S-3) recorder keeps a record of these problems. This ensures the commander does not interrupt the rehearsal's flow. If the problem remains at the end of the rehearsal, the commander will resolve it then. If the problem jeopardizes mission success, the staff accomplishes

the coordination necessary to resolve it before the participants disperse. Identifying and resolving such problems is a major reason for conducting rehearsals. If commanders do not make corrections while participants are assembled, they may lose the opportunity to do so. Coordinating among dispersed participants and disseminating changes to them often proves more difficult than accomplishing these actions in person.

Before The Rehearsal

Before the rehearsal, the rehearsal director calls the roll and briefs participants on information needed for execution. The briefing begins with an introduction, overview, and orientation. It includes a discussion of the rehearsal script and ground rules. The detail of this discussion is based on participants' familiarity with the rehearsal standard operating procedure.

Before the rehearsal, the staff develops an operation order with at least the basic five paragraphs and necessary overlays. The staff may not publish annexes; however, responsible staff officers should know their content.

Introduction and Overview

Before the rehearsal, the rehearsal director introduces all participants as needed. Then, the rehearsal director (normally the chief of staff or executive officer) gives an overview of the briefing topics, rehearsal subjects and sequence, and timeline, specifying the no-later-than ending time. The rehearsal director explains after action reviews, describes how and when they occur, and discusses how to incorporate changes into the operation order. The director explains any constraints, such as pyrotechnics use, light discipline, weapons firing, or radio silence. For safety, the rehearsal director ensures all participants understand safety precautions and enforces their use. Last, the director emphasizes results and states the commander's standard for a successful rehearsal. Subordinate leaders state any results of planning or preparation (including rehearsals) they have already conducted. If a subordinate recommends a change to the operation order, the rehearsal director acts on the recommendation before the rehearsal begins if possible. If not, the commander resolves the recommendation with a decision before the rehearsal ends.

Orientation

The rehearsal director orients the participants to the terrain or rehearsal medium. The rehearsal director identifies orientation using magnetic north on the rehearsal medium and symbols representing actual terrain features. After explaining any graphic control measures, obstacles, and targets, the rehearsal director issues supplemental materials if needed.

Rehearsal Script

An effective technique for controlling rehearsals is to use a script, which keeps the rehearsal on track. The script provides a checklist so that the organization addresses all warfighting functions and outstanding issues. It has two major parts: the agenda and response sequence.

Agenda. An effective rehearsal follows a prescribed agenda that everyone knows and understands including, but not limited to:

- Roll call.
- Participant orientation to the terrain.
    - ○ Location of local civilians.
    - ○ Enemy situation brief.
    - ○ Friendly situation brief.
    - ○ Description of expected adversary actions.
    - ○ Discussion of friendly unit actions.
    - ○ A review of notes made by the recorder.

The execution matrix, decision support template, and operation order outline the rehearsal agenda. These tools, especially the execution matrix, both drive and focus the rehearsal. The commander and staff use them to control the operation's execution. Any templates, matrixes, or tools developed within each of the warfighting functions should tie directly to the supported unit's execution matrix and decision support template. Examples include an intelligence synchronization matrix or fires execution matrix.

An effective rehearsal realistically and quickly portrays the enemy force and other variables of the operational environment without distracting from the rehearsal. One technique for doing this has the G-2 (S-2) preparing an actions checklist. It lists a sequence of events much like the one for friendly units but from the enemy or civilian perspective.

Response Sequence. Participants respond in a logical sequence either by warfighting function or by unit as the organization deploys from front to rear. The commander determines the sequence before the rehearsal. The staff posts the sequence at the rehearsal site, and the rehearsal director may restate it.

Effective rehearsals allow participants to visualize and synchronize the concept of operations. As the rehearsal proceeds, participants talk through the concept of operations, focusing on key events and the synchronization required to achieve the desired effects. The commander leads the rehearsal

and gives orders during the operation. Subordinate commanders enter and leave the discussion at the time they expect to begin and end their tasks or activities during the operation. This practice helps the commander assess the adequacy of synchronization. They do not "re-wargame" unless absolutely necessary to ensure subordinate unit commanders understand the plan.

The rehearsal director emphasizes integrating fires, events that trigger different branch actions, and actions on contact. The chief of fires (fire support officer) or fires unit commander states when to initiate fires, who will fire them, from where the firing comes, the ammunition available, and the desired target effect. Subordinate commanders state when they initiate fires according to their fire support plans. The rehearsal director speaks for any absent staff section and ensures the rehearsal addresses all actions on the synchronization matrix and decision support template at the proper time or event.

The rehearsal director ensures that the rehearsal includes key sustainment and protection actions at the appropriate times. Failure to do so reduces the value of the rehearsal as a coordination tool. The staff officer with coordinating staff responsibility inserts these items into the rehearsal. Special staff officers should brief by exception when a friendly or enemy event occurs within their area of expertise. Summarizing these actions at the end of the rehearsal can reinforce coordination requirements identified during the rehearsal. The staff updates the decision support template and gives a copy to each participant. Under time-constrained conditions, the conducting headquarters staff may provide copies before the rehearsal and rely on participants to update them with pen and ink changes.

Ground Rules

After discussing the rehearsal script, the rehearsal director:

- States the standard (what the commander will accept) for a successful rehearsal.
- Ensures everyone understands the parts of the operation order to rehearse. If the unit will not rehearse the entire operation, the rehearsal director states the events to be rehearsed.
- Quickly reviews the rehearsal standard operating procedure if not all participants are familiar with it. An effective rehearsal standard operating procedure states:
    - Who controls the rehearsal.
    - Who approves the rehearsal venue and its construction.
    - When special staff officers brief the commander.

  - The relationship between how the execution matrix portrays events and how units rehearse events.

- Establishes the timeline that designates the rehearsal starting time in relation to H-hour. For example, begin the rehearsal by depicting the anticipated situation one hour before H-hour. One event executed before rehearsing the first event is deployment of forces.
- Establishes the time interval to begin and track the rehearsal. For example, specify a ten-minute interval equates to one hour of actual time.
- Updates friendly and adversary activities as necessary, for example, any ongoing reconnaissance.

The rehearsal director concludes the orientation with a call for questions.

During The Rehearsal

Once the rehearsal director finishes discussing the ground rules and answering questions, the G-3 (S-3) reads the mission statement, the commander reads the commander's intent, and the G-3 (S-3) establishes the current friendly situation. The rehearsal then begins following the rehearsal script.

Step 1. Enemy forces deployed

The G-2 (S-2) briefs the current enemy situation and operational environment and places markers on the map or terrain board (as applicable) indicating where enemy forces and other operationally significant groups or activities would be before the first rehearsal event. The G-2 (S-2) then briefs the most likely enemy course of action and operational context. The G-2 (S-2) also briefs the status of reconnaissance and surveillance operations (for example, citing any patrols still out or any observation post positions).

Step 2. Friendly forces deployed

The G-3 (S-3) briefs friendly maneuver unit dispositions, including security forces, as they are arrayed at the start of the operation. Subordinate commanders and other staff officers brief their unit positions at the starting time and any particular points of emphasis. For example, the chemical, biological, radiological, and nuclear officer states the mission-oriented protective posture level, and the chief of fires (fire support officer) or fires unit commander states the range of friendly and enemy artillery. Other participants place markers for friendly forces, including adjacent units, at the positions they will occupy at the start of the operation. As participants place markers, they state their task and purpose, task organization, and strength.

Sustainment and protection units brief positions, plans, and actions at the starting time and at points of emphasis the rehearsal director designates. Subordinate units may include forward arming and refueling points, refuel-on-the-move points, communications checkpoints, security points, or operations security procedures that differ for any period during the operation. The rehearsal director restates the commander's intent, if necessary.

Step 3. Initiate action

The rehearsal director states the first event on the execution matrix. Normally this involves the G-2 (S-2) moving enemy markers according to the most likely course of action. The depiction must tie enemy actions to specific terrain or to friendly unit actions. The G-2 (S-2) portrays enemy actions based on the situational template developed for staff wargaming. Portray the enemy as uncooperative but not invincible.

As the rehearsal proceeds, the G-2 (S-2) portrays the enemy and other operational factors and walks through the most likely enemy course of action (per the situational template). The G-2 (S-2) stresses reconnaissance routes, objectives, security force composition and locations, initial contact, initial fires (artillery, air, and attack helicopters), probable main force objectives or engagement areas, and likely commitment of reserve forces.

Step 4. Decision point

When the rehearsal director determines that a particular enemy movement or reaction is complete, the commander assesses the situation to determine if a decision point has been reached. Decision points are taken directly from the decision support template.

If the commander determines the unit is not at a decision point and not at the end state, the commander directs the rehearsal director to continue to the next event on the execution matrix. Participants go back to the response sequence section and continue to act out and describe their units' actions.

When the rehearsal reaches conditions that establish a decision point, the commander decides whether to continue with the current course of action or by selecting a branch. If electing the current course of action, the commander directs the rehearsal director to move to the next event in the execution matrix. If selecting a branch, then the commander states why that branch, states the first event of that branch, and continues the rehearsal until the organization has rehearsed all events of that branch. As the unit reaches decisive points, the rehearsal director states the conditions required for success.

When it becomes obvious that the operation requires additional coordination to ensure success, participants immediately begin to coordinate. This is one of the key reasons for rehearsals. The rehearsal director ensures that the recorder captures the coordination and any changes and ensures all participants understand the coordination.

Step 5. End state reached

Achieving the desired end state completes that phase of the rehearsal. In an attack, the end state will usually be reached when the unit is on the objective and has finished consolidation and casualty evacuation. In the defense, the end state will usually be achieved after the decisive action (such as committing the reserve or striking force), after the final destruction or withdrawal of the enemy, and when casualty evacuation is complete. In a stability operation, the end state usually occurs when a unit achieves the targeted progress within a designated line of effort.

Step 6. Reset

At this point, the commander states which branch to rehearse next. The rehearsal director resets the situation to the decision point where that branch begins and states the criteria for a decision to execute that branch. Participants assume those criteria have been met and then refight the operation along that branch until they attain the desired end state. They complete any coordination needed to ensure that all participants can understand and meet any requirements. The recorder documents any changes to the branch.

The commander then states the next branch to rehearse. The rehearsal director again resets the situation to the decision point where that branch begins, and participants repeat the process. This continues until the rehearsal addresses all decision points and branches that the commander wants to rehearse.

If the standard is not met and time permits, the commander directs participants to repeat the rehearsal. The rehearsal continues until participants are properly prepared or until the time available expires (commanders may allocate more time for a rehearsal but must assess the effects on subordinate commanders' preparation time). Successive rehearsals, if conducted, should be more complex and realistic.

At the end of the rehearsal, the recorder restates any changes, coordination, or clarifications that the commander directed and estimates how long it will take to codify changes in a written fragmentary order.

After the Rehearsal

After the rehearsal, the commander leads an after action review. The commander reviews lessons learned and makes the minimum required modifications to the existing plan (normally, a fragmentary order effects these changes). Changes should be refinements to the operation order; they should not be radical or significant. Changes not critical to the operation's execution may confuse subordinates and hinder the synchronization of the plan. The commander issues any last minute instructions or reminders and reiterates the commander's intent.

Based on the commander's instructions, the staff makes any necessary changes to the operation order, decision support template, and execution matrix based on the rehearsal results. Subordinate commanders incorporate these changes into their units' operation orders. The chief of staff (executive officer) ensures the changes are briefed to all leaders or liaison officers who did not participate in the rehearsal.

A rehearsal provides the final opportunity for subordinates to identify and fix unresolved problems. The staff ensures that all participants understand any changes to the operation order and that the recorder captures all coordination done at the rehearsal. All changes to the published operation order are, in effect, verbal fragmentary orders. As soon as possible, the staff publishes these verbal fragmentary orders as a written fragmentary order that changes the operation order.

Appendix B

Brigade Fire Support Rehearsal, Checklist, Script, and Examples

The brigade fire support rehearsal is conducted before the brigade's combined arms rehearsal when possible. The possible methods used to conduct this rehearsal are maps, sand tables, or radios. Sand tables are the most preferred method and will normally be set up for the brigade's combined arms rehearsal. Radio rehearsals are preferred when the operational tempo or enemy situation precludes a face-to-face sand table rehearsal with all fire support elements present. To ensure the proper execution of the rehearsed fire support plan, the brigade conducts a technical rehearsal (frequency modulated/digital) led by the field artillery battalion and includes all fire support elements. The primary purpose of the technical rehearsal is to validate communication nets, target responsibilities, and validate all aspects of **TTLODAC: t**argets, **t**riggers, **l**ocations, **o**bservers, **d**elivery systems, **a**ttack guidance, and **c**ommunications networks rehearsed at all levels.

Key fire support points that must be highlighted during the rehearsal include:

- Synchronization of the fire support plan with the scheme of maneuver.
- Target execution responsibilities to include primary and backup shooters and their engagement criteria.
- Artillery and mortar positioning and maneuver plan.
- Verification of the target acquisition plan.
- All fire support coordination measures (FSCMs).
- Air support (close air support, attack aviation, and joint air attack team employment).

Responsibilities of fire support rehearsals:

- Fires cell noncommissioned officer. Responsible for overall setup and preparation of sand table rehearsal. Coordinates with the brigade operations sergeant major for use of the brigade's terrain model. Ensures that the terrain model is completed prior to the fire support rehearsal and is repaired immediately after. During voice rehearsals, the effects noncommissioned officer will ensure all stations are ready to begin and have all proper products.

- Brigade targeting officer. Ensures updated fire support products are present. Ensures that all subordinate fire support elements, the direct support field artillery field artillery battalion fire direction center, and other fire support agencies have copies of the most current fire support execution matrix and target list.
- Brigade fire support officer (FSO). Overall, responsible for preparation and execution of the fire support rehearsal. Serves as the facilitator for the rehearsal. Coordinates with the brigade S-2 to ensure that a representative is present to brief how the enemy is expected to fight and update the current enemy situation. Coordinates with the brigade S-3 to ensure that a representative is present that can articulate the maneuver plan and brief the current friendly situation. Ensures all fire support systems are incorporated into the execution of the rehearsal (close air support, naval gun fire, intelligence and electronic warfare, mortars, etc.).

Rehearsal Checklist

The following format should be used to conduct the brigade fire support rehearsal.

Fire Support Rehearsal Agenda

☐ Roll Call: Ensure key players are present.

- ○ Field artillery battalion commander (brigade combat team fire support coordinator).
- ○ Brigade FSO.
- ○ Fires cell battle captains.
- ○ Senior fires cell noncommissioned officers.
- ○ Non-lethal fires representatives.
- ○ Battalion/squadron FSOs, company/troop FSOs, and fire support noncommissioned officers (attack aviation FSO if attached).
- ○ Targeting officer.
- ○ Counter fire officer.
- ○ Field battalion S-3, fire direction officer (FDO), S-2.
- ○ Air liaison officer and joint tactical air controllers.
- ○ Health support battalion commander.
- ○ Brigade commander, executive officer, S-3, S-2.

- ○ Radar section leaders.
- ○ Augmenting unit fire support representatives.

☐ Rules: No talking, maps out, target list/fire support execution matrix (FSEM) in hand.

☐ Orientation: Brigade FSO orients participants to the map/sand table and the maneuver graphics that will be used for the rehearsal.

☐ Review current target list and fire support tasks (FSTs): targeting officer covers target list, orientation of targets on map.

☐ Event by event discussion:

- ○ Brigade S-3 gives basic overview of starting positions of units.
- ○ Brigade S-2 gives overall enemy situation, focuses on events that affect fire support community.
- ○ Brigade FSO discusses first event, the brigade commander's intent for fires, priorities, allocations, assets available and FSCMs for each phase of the operation.
- ○ Field artillery S-3 covers firing battery initial positions, azimuth of fire, potential moves of batteries, and tactical operations center location.
- ○ Battalion FSO's brief supporting fire support actions identified and discussed in terms of TTLODAC.

T — Target: Enemy Recon

T — Trigger: lead unit reaches Platoon UTAH

L — Location: (AR0001)

O — Observer: Troop 5-7 Cavalry. Alternate: B troop, 5-7 Cavalry

D — Delivery: DS Field Artillery Battary. Alternate: 120 mm mortars

A — Attack Guidance: Battery X3 HE. Alternate: Platoon X5 HE

C — Communication: SIGINT

- ○ Air liaison officer and joint tactical air controllers discuss any event associated with fire support action.
- ○ Field artillery FDO covers ammunition, number of rounds per artillery target, and percent of round remaining after firing targets.
- ○ Radar section leaders cover locations, area of separation.

☐ Continue event by event: Discuss TTLODAC for any maneuver event requiring an associated fire support action.

☐ Recap all critical fire support actions by individual responsibilities: Air liaison officer and joint tactical air controllers recap critical close air support events; verify all frequencies, call signs, and code words.

☐ Final scrub of target list/FSEM.

☐ End rehearsal with exchange of information: Update ammunition counts, critical unit locations/movements, etc.

Fire Support Rehearsal Scripts

The following are examples of rehearsal scripts. The intent of these scripts is twofold: prepare the speaker for his part as to not waste time, and if required, break down the required parts for an abbreviated rehearsal.

Battalion FSO Script Examples

Combined arms rehearsal (CAR):

By phase, the FSO should brief:

- ○ Priority of fires for unit.
- ○ Mortar locations.
- ○ Assign FST responsibilities.
- ○ Clearance of fires, FSCMs.
- ○ Target they have to execute (not TTLODAC).

Script: "I am CPT Snapfish, Task Force (TF) 5-20, FSO. During this phase of the operation, our TF is...in priority of fires. Our mortars are located here. My FSTs are...(if required). Unique FSCMs in effect are ... I have planned or been assigned the following targets (if something requires a trigger discuss it)."

Fire support rehearsal:

By Phase, FSO should brief:

- ○ Priority of fires for unit.
- ○ Mortar locations.
- ○ Assign FST responsibilities.
- ○ Clearance of fires, FSCMs.
- ○ Target they have to execute.

Script: "I am CPT Snapfish, TF 5-20 FSO. During this phase of the operation, our TF is...in priority of fires. Our mortars are located here. My fire support FSTs are...(if required). Unique FSCMs in effect are...I have planned or have been assigned the following targets." Discuss TTLODAC for each target.

Fire support coordinator (FSCOORD)/brigade FSO example for CAR:

By phase, FSCOORD/brigade FSO should brief:

- ○ Priority of fires for units.
- ○ Brigade FSTs.
- ○ Brigade high payoff target.
- ○ Close air support CAS.
- ○ Naval surface fire support.
- ○ Any FSCMs.

Full Script Example

Phase I

Priority of fires is to 1-14.

FSTs are suppression of enemy air defenses, counterfire, and disrupting of enemy observation.

High payoff targets are SA18s, 81 mm mortars, and enemy observation posts.

Close air support that has been on station from 0800 to 1100 hours supporting Team Recon in area of operation (AO) Grant, we are looking at two ships: OA10 and A10.

Naval surface fire support is also available from the USS Arleigh Burke that is in the fire support area four. Battalions will call through their battalion air liaison officer to the naval fire support cell on high frequency (HF) 11.4646.

An on-order airspace coordination area (ACA), named ACA 1 will be put into effect over the forward logistic site.

At approximately 1110 hours, Chalk 7-9, that consists of the Q36 radar, will arrive on forward logistic site radar, oriented on an area of separation (AOS) of 4800, along Route Warhorse to detect enemy mortars that may engage convoys and ambush sites. Critical friendly zones one through four are in effect to protect cavalry squadron assets in the AO.

The 5-20 will be supported in their AO by the naval surface fire support and 1-637 field artillery that is general support reinforcing (GSR) to 2/21. There are also additional fire support assets from division that will be available. He will also have the USS Barry in the fire support area one that can range all of AO Trappnel. Battalions will call through their battalion air liaison officer to the naval fire support cell on HF 11.4646. Close air support can be diverted from AO Grant to AO Trappnel that will be on station from 0800 to 1100 hours.

Phase II

Priority of fires is to 1-14.

FSTs stay the same.

Close air support is off station at 1100 hours.

Naval surface fire support is still available in the two fire support areas. Frequencies for contact remain the same.

The 5-20 can continue to receive GSR fires from 1-637 field artillery. Route all missions through the fire and effects coordination cell or directly with 1-637. The FSO has the frequencies.

Organic mortars are available to both 1-14 and 5-20.

Division assets continue to cover the movement up the main supply routes.

Phase III

Priority of fires is to 1-14 and shifts to 1-23 upon commitment.

FSTs stay the same.

Fire support assets are as follows:

The 1-37 field artillery is located in position area of artillery (PAA) 1-3.

Six close air support sorties, and A10/OA10 are available on a six-hour window, to be further winnowed at the targeting meeting.

The 1-637 field artillery in 2/21 sector is still available for reinforcing support of 5-20.

Naval surface fire support is available on eight-hour windows in the fire support area, we are fourth in the priority of fire in the division. Fires and effects coordination cell will coordinate for time blocks. Organic mortars are available for each battalion.

The Q37 will be oriented on an area of separation of 5700 which can cover the western part of AO Grant and all of AO Trappnell.

The Q36 on order will move from the forward logistic site to PAA two which is occupied by Battery A. One of the batterie's primary mission will be to defend the radar.

Information operations cell executes non-lethal tasks as part of Team Village. Their FSTs are:

T: Facilitate the interface of 1-14 with host nation leadership/key communicators.

P: Increase host-nation acceptance of U.S. presence and decrease the support of the opposing forces.

T: Facilitate media relations, allowing timely, accurate media coverage by accredited news agencies.

P: Decrease effectiveness of enemy propaganda, gain and maintain local and international support.

Phase IV

Priority of fires is to 1-14 and then to 1-23 upon commitment.

Additional FSTs are employment of family of scatterable mines (FASCAM) and fires on maneuver.

Fire support assets availability continues unchanged.

Clearance of fires discussion:

Once 1-23 is committed in its company areas, inside of 1-14's sector, it will move out of the assembly area. Once 1-23 moves out of its assembly area, there will be an on order boundary change where 1-23 will now own the land. It is the responsibility of the elements of 1-14 in that AO to report

its positions to 1-23 and to the fires cell. All agencies will affect the no-fire areas over all cavalry squadron positions within the new boundary. All calls for fire from 1-14 in the new AO will be routed through 1-23. The 1-23 is responsible for clearing all fires.

Full Brigade Effects Rehearsal Script Example

Roll call: FSCOORD, scribe, brigade fire support noncommissioned officer, brigade counterfire officer, brigade targeting officer, field artillery battalion S-3, FDO, S-2, air liaison officer, battalion FSOs.

Rules: No sidebars, be prepared to brief with FSEM in hand.

Map orientation: Do map orientation.

Review current target list and radar deployment order: The target list should be updated to include any changes.

CPT Mush will now review the rules of engagement for this operation and give one or two short practical vignettes:

We will now talk through the four phases of this operation. I will give an operational overview. Then the S-2 will talk though the fire support specific considerations for each phase of the operation. Then each FSO involved with that particular phase will brief where his unit is in priority of fires, mortar locations, FSTs, clearance of fires, FSCMS, and scheme of fires using the purpose, location, observers, trigger, communications, and rehearsal (PLOT-CR) methodology. Any targets that involve engagement by air will be briefed in concert with the air liaison officer. The information operations cell will cover the execution of non-lethal effects by phase. The field artillery S-3 will go over initial battery firing positions, azimuth of fire, potential moves by batteries, and tactical operations center locations. The FDO will discuss attack criteria for each target type. The counterfire officer will brief on radar positions.

Phase I

The phase begins with the deployment of brigade command and control (C2), counterfire, and reconnaissance assets, expected at 240830 on July 2013. The purpose of this phase is to deploy sufficient reconnaissance assets to set conditions for air and ground deployment of relief in place force into AO Grant. On or about the same time, 5-20 deploys lead elements by ground to set conditions for relief in place.

Conditions for the beginning of the phase are: Rangers secure object area (OBJ) Lindsey, air route is clear of air defense artillery, and Team Recon and Team Fires are prepared for air movement. Division main supply route to AO Trapnell is secure; 5-20 is prepared to start point on Route Mercury.

The phase ends when Team Fires has established counter-mortar radar coverage of the airhead and when it positions mortars to respond to enemy mortar acquisitions. Team Recon has cleared Route Warhorse to start point. This is expected at 241500.

The time is now 240830. Lead elements of Team Recon have arrived on OBJ Lindsey by C17. Priority of fires is to 1-14 in OBJ Lindsey. Currently, close air support that has been on station since 0800 hours is supporting Team Recon. We are looking at two ships: OA10 and A10. Naval surface fire support is also available from the USS Arleigh Burke that is in fire support area four. Battalions will call through their battalion air liaison officer to the naval fire support cell on HF 11.4646.

The time is now 241030-1110. Chalk 7-9 that consists of the Q36 radar and 120 mm mortars from the cavalry squadron have arrived on the forward logistic site in OBJ Grant. This is known as Team Fires. They will occupy on the forward logistic site at the direction of 1-14, which they are attached to until a command and control element from 1-37 arrives. The radar will be oriented on an area of separation of 4800 oriented along Route Warhorse to detect enemy mortars that may engage convoys and ambush sites.

Moving to OBJ Maguder is 5-20 along Route Mercury.

S-2: What we need now is an enemy laydown, specifically with considerations for fire support. Please cover both OBJ Lindsey for 1-14 and OBJ Magruder for 5-20.

Chief Carbine will now brief the location of the Q36 radar and critical friendly zones in effect as planned by 1-14.

The FSO from 1-14 will now talk through his priority of fires, mortar locations, FSTs, clearance issues, and target using the PLOT-CR methodology once he arrives on the airhead to the end of the phase.

The FSO from 5-20 will now talk through his initial plan once he arrives on OBJ Magruder. The assumption is that the route is secure. However, covering his route will be GSR Artillery 1-637 field artillery in the zone of 2/21 Infantry. There are also additional fire support assets from the division that will be available. Calls for fire will be through the division fire support net identification number (NET ID) 358. He will also have the USS Rainer in fire support area one that can range all of AO Trappnel. Battalions will call through their battalion air liaison officer to the naval fire support cell on HF 11.4646. The 5-20 battalion air liaison officer's communication suite can contact the naval fire support cell. There is also possibility that close air support can be diverted from AO Grant to AO Trappnel which will be on station from 0800 to 1100 hours.

The air liaison officer will discuss brief close air support diversion procedures.

Phase II

The phase begins when Team Fires has established counter-mortar radar coverage of the airhead and position mortars to respond to enemy mortar acquisitions. Team Recon has cleared Route Warhorse to start point. The majority of 5-20's combat power is in AO Trappnell. This is expected at 241500.

The purpose of this phase is to deploy sufficient forces to conduct relief in place for OBJ Lindsey and assume security for OBJ Magruder.

The phase ends when a Stryker company has secured OBJ Lindsey.

Fire support assets available are as follows: Close air support is off station at 1100 hours. Naval surface fire support is still available in the two fire support areas. Frequencies for contact remain the same. Priority of fires goes to 1-14. GSR fires continue to be received by 5-20 from the 1-637 field artillery. Route all missions through the fires cell. If 5-20 cannot reach the fires cell, then call 1-637 directly at NET ID 452 or through the division fires cell. Organic mortars are available to both 1-14 and 5-20. Division assets continue to cover the movement up the main supply routes.

S-2: Are there any changes to the enemy set in regards to fire support considerations for phase II?

The FSO from 1-14 will now talk through phase II fires in OBJ Lindsey.

The FSO from 5-20 will now talk through phase II fires in OBJ Maguder.

The field artillery battalion S-3 will now discuss the movement of C-1/37 Field Artillery and the field artillery Jump tactical operations center.

Phase III

Phase III begins when a Stryker company has secured OBJ Lindsey and the brigade has assumed control from 2/75 and when Team Recon has cleared Route Warhorse.

The purpose of this phase is to complete deployment of sufficient combat power by ground and air to AO Grant and AO Trappenel to commence decisive operations.

This phase ends when the brigade is clear of the intermediate staging base and units have occupied AO Grant and Trapnell no later than 262300 of July.

Priority of fires goes to 1-14, 1-23, and then to 2-3 in AO Grant.

S-2: What are the changes to the enemy set in regards to fire support considerations for phase III?

The 1-14 FSO will talk through fires up to the end of phase III, next the 2-3 FSO will talk, then the 1-23 FSO, and finally the 5-20 FSO.

The information operations cell will now discuss the non-lethal tasks in starting phase III with Team Village, concentrating specifically on the tasks and considerations that the 1-14 FSO and his subordinate fire support elements will have in execution of the information operations plan.

The field artillery battalion S-3 will now discuss movement of batteries A and B into AO Grant, the trigger of C battery moving from PAA four to their subsequent position, and the movement of the battalion tactical operations center.

The FDO will now cover ammunition and attack criteria for each target type.

Chief Carbine will now discuss the employment of the Q37 and the movement of the Q36 in its subsequent position, area of separation and critical friendly zones.

Phase IV

The phase begins when the brigade is clear of the intermediate staging base and units have occupied AO Grant and Trapnell no later than 262300 of July when a Stryker company has secured OBJ Lindsey.

The fire support assets available during this phase are as follows:

The 1-37 field artillery is located in the PAA one through three.

Six close air support sorties, and A10 and OA10 are available on a six-hour window to be further winnowed at the targeting meeting.

Available for reinforcing support of 5-20, is 1-637 field artillery in 2/21 sector.

Naval surface fire support is available on eight-hour windows in the fire support area. We are fourth in the priority of fire in division.

Organic mortars are available to each battalion.

Several possible fire support events during phase IV will now be rehearsed:

Counterfire acquisition of mortars:

Acquired by the Q36/7: The mission will go to the fires cell to fire with the 1-37 field artillery, or will go down to the battalion fire support element to fire with organic mortars or to employ Strykers in the area. For 5-20: acquisition will come via the fires cell from the Q37. Engage with organic mortars, 1-637, or with naval surface fire support. All battalions will report mortar positions with 250 meter no fire areas to the brigade fires cell.

Engagement of targets by 1-14 in AO Grant:

The 1-14 FSO will now talk through his scheme of fires in phase IV to include engagement of the FASCAM targets and possible triggers for the FASCAM. After the 1-14 FSO has finished, the battalion FDO will discuss technical considerations for the FASCAM mission and communications links with 1-14.

Engagement of targets by 5-20 in AO Trappnel:

The 5-20 FSO will now talk through his scheme of fires in phase IV.

Engagement of targets by 2-3 in AO Grant:

The 2-3 FSO will talk through his scheme of fires in phase IV.

Engagement of targets by 1-23:

Will first need to talk through the clearance of fires when the 1-14 finds a target.

- Criteria for commitments 1-23 are as follows:
- Squad size or above dismounted troops.
- Two or more mortar tubes.
- Mortar cache site.
- Mechanized forces.

Once 1-23 is committed in their company areas inside of 1-14's sector, they will move out of their assembly area. Once 1-23 moves out of their assembly area, there will be an on-order boundary change where 1-23 will now own the land. It is the responsibility of elements of 1-14 in that AO to report their positions to 1-23 and the fires cell. All agencies will affect no fire areas over all cavalry squadron positions in the new boundary. All calls for fire from 1-14 in the new AO will be routed through 1-23, responsible for clearing all fires.

The 1-23 FSO will now discuss his scheme of fires in phase IV.

The IO cell will now discuss any changes to Team Village and the integration of the 1-14 FSO into the IO plan.

The battalion S-3 will now discuss any changes to battery firing positions, azimuth of fire, potential moves, and tactical operations center locations.

The FDO will discuss any changes to the fire order.

Scribe will recap all changes or any issues.

Appendix C

Field Artillery Battalion Rehearsal Checklist

Planning

- Battalion commander has specified attendees, types, and place of rehearsal.
- Attendee.
- Type:
  - Map board.
  - Radio.
  - Sand table/terrain model.
  - Rock drill.
  - Tactical exercise without troops.
  - Full.
- The S-3 publishes the rehearsal time/location in a warning order, operation order, or fragmentary order.
- Complete staff rehearsal of the operation.
- Specify decision support template/matrix auditor/note taker.
- Designate personnel to prepare rehearsal site(s) (operations sergeant).
- Battalion fire direction officer (FDO) specifies targets and backups to battery commanders.
- Battalion FDO specifies the battery to execute specified tasks (fire support task to field artillery tasks), complete unit order/plan with field artillery task to battery (the five W's).

Preparation

- S-3 has identified specific events to rehearse.
- Verified completeness of rehearsal site(s).
- Local security upgrades (operations sergeant).
- Parking and traffic routing (operations sergeant).

- Establish rehearsal time limits consistent with mission, enemy, terrain, troops available, time, and civilian considerations (S-3).
- Battery commanders rehearse battery plans and supporting drills, and verify battery disposition and capabilities.

Execution

The S-3 directs the rehearsal, ensuring all key personnel validate their understanding of the commander's intent and concept.

- Position attendees around the rehearsal site in accordance with the rehearsal diagram.
- Rehearsal agenda is followed.
- Chemical officer is the recorder.

Briefer	Topic
S-3	Terrain model orientation. Friendly unit locations.
S-2	Threat situation. Event template with enemy maneuver, fire support, engineer, air defense artillery. Enemy reconnaisance plan. Primary threat to batteries.
S-3	Brigade combat team plan/ battalion mission/FATs.
Battalion Commander	Commander intent.
Battalion FDO	Concept of the operation/FST/ FAT/triggers.

Briefer	Topic
Battery Commander/Platoon FDO	Slant report/readiness condition/ strategic mission command/ field artillery maneuver/target execution (to include forward observer, triggers with location, target number, time it takes to shoot)/ammunition resupply/ casualty evacuation. Plan and threshold actions on contact (to include chemical, biological, radiological, nuclear and high-yield explosives, indirect fire, direct fire).
Survey Chief	Position Azimuth Determining System location throughout battle.
Executive Officer/S-4/General Fire Support Cell Commander	Concept of support/combat service support triggers/supply routes/long range patrols/ ambulance exchange points/main command posts/priority of supply.
S-3	Review decisions/issues.
S-6	Time hack/retrans locations, command, control.
Battalion Commander	Closing comments.

Special instructions:

- For each task selected, the S-3 cues the participants to perform their unit's actions on the rehearsal site.
- The S-2 must portray his best assessment of the enemy reactions, concept of the operation, desired effects, and intended end state.
- The rehearsal is for the doers — leaders and soldiers — who will execute the task and not for staffers to explain the concept.
- The doer will perform the task; the staffer ensures consistency with the plan.

Leader participation in the rehearsal will:

- Validate each leader's role as part of the whole force — what is done, when relative to time and event and where to achieve desired effects.
- Ensure common visualization of the enemy, friendly forces, terrain, and desired effects.
- Specify action requiring immediate staff resolution.
- Inform the battalion commander on critical issues or locations he or the S-3/command sergeant major/executive officer must personally oversee.
- What the commander wants to achieve, where it should occur, and how it should occur without upsetting the synchronization of the force.

Appendix D

Field Artillery Battery Rehearsal Checklist

1. Decide which rehearsal technique to be used.
    - Map.
    - Radio.
    - Sand table.
    - Rock drill.
2. Determine participants.
    - Battery commander, first sergeant, platoon leaders, fire direction officers, platoon sergeants, gunnery sergeants, section chiefs (gunners, communications, chemical, biological, radiological, nuclear and enhanced conventional weapons, etc.).
3. Determine the rehearsal location.
4. Determine the rehearsal time.
5. Orient participants to the training aid (map/sand table/rock drill).
6. Verbally, and on the training aid, walk through the concept of the operation for each movement.
7. Movements to firing areas.
    - Route, order of march, no later than start point, start point location, check points, rally point location.
8. Actions at each firing area.
    - Dispersion within firing areas, azimuth of fire, movement condition, trigger for movement, pre-combat checks/pre-combat inspections to be conducted, mission oriented protection posture level, air defense artillery status, targets, purpose, turret load, ammunition, trigger for targets, ambulance exchange location, rearm, refuel, and rest/allow passing of higher priority unit/refuel on the move locations.
9. Identify contingencies for each movement.
10. Re-rehearse any areas that do not meet the standards.

Appendix E

Gunline Rehearsal Checklist

The point of contact planning process begins upon receipt of the initial brigade consolidated target list and scheme of fires/execution matrix. From this point, time management is critical to achieving the desired end states and meeting the critical fire support tasks. This step-by-step format will assist the fire direction officer in properly allocating time and disseminating tasks in order to be ready for the fight.

1. Receive the following from the battalion fire direction center or the battery commander:

- Brigade target list.
- Scheme of fires/execution.
- Commander's guidance.

2. Plot the following on the situation map and firing chart:

- All planned targets.
- All fire support coordination measure (FSCMs).
- All platoon Paladin Zones with range fans for L and H Modular Artillery Charge System charges.

3. Enter the following into the Advanced Field Artillery Tactical Data System (AFATDS) database:

- Subsequent Paladin Zones as "ghost guns."
- All planned targets.
- All Applicable FSCMs.

4. Determine the technical firing data to each target according to the execution matrix. For example: "I am firing HT7110 from PA A1 and HT7120 from PA A2." If the Paladin Zone assignment is unknown, fire each target from each Paladin Zone. Review the following:

- Deflection.
- Quadrant elevation.
- Time.

- Charge.
- Time of flight.

5. Identify problems and possible solutions to the following conditions:

- Site to crest (use map if necessary).
- Possible piece cant problems (use map).
- Ranging the target.
- Charge restrictions and limitations.
- Ammunition requirements by field artillery task, charge (by propellant type), and number of rounds.
- Intervening crests and the need to fire high angle.

6. Out of traverse:

- Site to crest.
- Aiming reference problems (greater than 400 millimeters from center of traverse).
- Azimuth to target.
- Complex fire orders and fire commands for special missions.
- FSCM violations.

7. Determine how to best fire any special missions and how to convey the information to the gun line (i.e., establishing each aim point on a priority smoke screen as an internal priority target).

8. For smoke and family of scatterable mines targets:

- Determine the number of aim points and which teams are required to initiate and then sustain.
- Determine and rehearse the firing of the initial volley and then transition to the sustaining phase (some guns won't be involved in the sustainment phase).
- Have section chiefs verify number of rounds and powders on hand versus the number required to complete the field artillery task.

9. Rehearse the fire missions with the guns:

- Send mission digitally to the howitzers.

- Provide clear guidance on the method of control/fire commands.
- Verify shift time/firing interval.
- Propellant lot and type to be fired.
- Required propellant lots on hand for all field artillery tasks.
- Chief identifies possible problems:
    - Ammunition problems/compatibility.
    - Site to crest problems.
- Aiming references to be used (i.e., distant aiming point, aim posts).

10. Refinements to the plan will be disseminated from the tactical operations center and the battalion fire direction center.

- Update AFATDS database.
- Update map board.
- Update situation map.
- Update hard copy of the target list and the execution matrix.

Note: Immediately report all issues to both the battery commander and the battalion fire direction center.

Appendix F

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<http://call.army.mil>

CALL produces the following publications on a variety of subjects:

- **Combat Training Center Bulletins, Newsletters, and Trends**
- **Special Editions**
- ***News From the Front***
- **Training Techniques**
- **Handbooks**
- **Initial Impressions Reports**

You may request these publications by using the "RFI or a CALL Product" link on the CALL home page.

COMBINED ARMS CENTER (CAC)
Additional Publications and Resources

The CAC home page address is:

<http://usacac.army.mil/cac2/index.asp>

Center for Army Leadership (CAL)

CAL plans and programs leadership instruction, doctrine, and research. CAL integrates and synchronizes the Professional Military Education Systems and Civilian Education System. Find CAL products at <http://usacac.army.mil/cac2/cal/index.asp>.

Combat Studies Institute (CSI)

CSI is a military history think tank that produces timely and relevant military history and contemporary operational history. Find CSI products at <http://usacac.army.mil/cac2/csi/csipubs.asp>.

Combined Arms Doctrine Directorate (CADD)

CADD develops, writes, and updates Army doctrine at the corps and division level. Find the doctrinal publications at either the Army Publishing Directorate (APD) <http://www.usapa.army.mil> or the Reimer Digital Library <http://www.adtdl.army.mil>.

Foreign Military Studies Office (FMSO)

FMSO is a research and analysis center on Fort Leavenworth under the TRADOC G2. FMSO manages and conducts analytical programs focused on emerging and asymmetric threats, regional military and security developments, and other issues that define evolving operational environments around the world. Find FMSO products at <http://fmso.leavenworth.army.mil/>.

Military Review (MR)

MR is a revered journal that provides a forum for original thought and debate on the art and science of land warfare and other issues of current interest to the U.S. Army and the Department of Defense. Find MR at <http://usacac.army.mil/cac2/militaryreview/index.asp>.

TRADOC Intelligence Support Activity (TRISA)

TRISA is a field agency of the TRADOC G2 and a tenant organization on Fort Leavenworth. TRISA is responsible for the development of intelligence products to support the policy-making, training, combat development, models, and simulations arenas. Find TRISA Threats at <https://dcsint-threats.leavenworth.army.mil/default.aspx> (requires AKO password and ID).

Combined Arms Center-Capability Development Integration Directorate (CAC-CDID)

CAC-CDIC is responsible for executing the capability development for a number of CAC proponent areas, such as Information Operations, Electronic Warfare, and Computer Network Operations, among others. CAC-CDID also teaches the Functional Area 30 (Information Operations) qualification course. Find CAC-CDID at <http://usacac.army.mil/cac2/cdid/index.asp>.

Army Irregular Warfare Fusion Cell (AIWFC)

AIWFC integrates and collaborates information exchange and analysis for irregular warfare (IW) activities in order to advocate DOTMLPF (doctrine, organization, training, materiel, leadership and education, personnel, and f acilities) solutions addressing IW threats. AIWFC synchronizes and assists in the development of IW and countering irregular threats enterprises to support a coherent Army strategy that accounts for building partner capacity, stability operations, and the integration of unconventional warfare and counterterrorism. Find AIWFC at: <http://usacac.army.mil/cac2/AIWFC>.

Joint Center for International Security Force Assistance (JCISFA)

JCISFA's mission is to capture and analyze security force assistance (SFA) lessons from contemporary operations to advise combatant commands and military departments on appropriate doctrine; practices; and proven tactics, techniques, and procedures (TTP) to prepare for and conduct SFA missions efficiently. JCISFA was created to institutionalize SFA across DOD and serve as the DOD SFA Center of Excellence. Find JCISFA at <https://jcisfa.jcs.mil/Public/Index.aspx>.

Support CAC in the exchange of information by telling us about your successes so they may be shared and become Army successes.

http://call.army.mil

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