HANDBOOK

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MDMP AND THE FIELD ARTILLERY SUPPORT PLAN

Lessons and Best Practices

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SUPPORTING THE WARFIGHTER

MDMP and the Field Artillery Support Plan Handbook

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Foreword

Creating and coordinating a fully synchronized plan and operation order is a complex and often difficult, time-consuming process for any organization. The process is often made more difficult by the geographic separation of key staff officers and agencies, as is the case for many field artillery (FA) battalions. FA battalions must develop workable, synchronized field artillery support plans (FASPs) despite the fact that the commander, executive, operation, and sustainment officers are often located in different areas.

The purpose of this handbook is to share some tactics, techniques, and procedures developed and successfully used by FA battalions rotating through the Combat Training Centers (CTCs). The FA battalion staffs used the military decisionmaking process (MDMP) as described in the Army Tactics, Techniques, and Procedures 5-0.1, *Commander and Staff Officer Guide* (SEP 2011), but modified the steps to meet artillery specific MDMP requirements.

So, how can an artillery battalion put together a clear, concise, and synchronized FA support plan? Read further and find out what worked for several battalions and staffs rotating through the CTCs. Maybe it can work for you, too.

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MDMP and the Field Artillery Support Plan Handbook

Table of Contents

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Introduction

The brigade combat team's artillery battalion staff should strive to conduct as much parallel planning as possible with the maneuver brigade staff; however, in a time-compressed planning environment, this is not always possible. The procedures outlined in this handbook address the production of the FASP when the brigade combat team's artillery battalion staff begins formal planning shortly before the brigade operation order (OPORD) is published. However, even in this sequential planning procedure, the artillery battalion staff must still conduct planning along with the brigade staff. The artillery battalion staff's planning will not be parallel with the brigade's MDMP, but the artillery battalion staff will have a good concept for the artillery course of action (COA) once the brigade commander approves the maneuver COA. The artillery battalion staff must conduct prior planning with the brigade staff to produce a supportable brigade COA and to facilitate producing a quality FASP in a timely manner. The goal of the artillery battalion staff is to produce a FASP, synchronized with the maneuver COA, as soon as possible after the publication of the brigade OPORD.

Techniques and Procedures

Step 1: Receipt of the Mission

The first step of the military decisionmaking process (MDMP) is to receive the mission from higher headquarters, usually in the form of a written order. However, prior to this first formal step, the field artillery (FA) battalion must initiate prior planning in conjunction with the supported maneuver brigade as soon as it receives the initial brigade warning order. Staff officers must "cross talk" with their respective counterparts on the brigade staff to acquire as much information as early as possible regarding the upcoming operation. The intelligence officer (S-2) begins the intelligence preparation of the battlefield (IPB) process. The operations officer (S-3), in coordination with the S-2, develops the initial reconnaissance plan. Warning orders are sent to the batteries as new information about the upcoming operations order (OPORD) is received from the brigade. Hence, prior to the receipt of the brigade's OPORD, the brigade combat team FA battalion staff has formed an understanding of the mission and the battalion executive officer (XO) has developed an initial timeline. In addition, the FA staff has begun preliminary mission analysis and tentative course of action (COA) development. This preliminary analysis focuses on running estimates and starting task analysis. Furthermore, the S-3 must work closely with the brigade combat team fire support coordinator (FSCOORD); the FA battalion commander; targeting, counterfire, and target acquisition officers; as well as the battalion fire support officers (FSOs)/liaison officers (LNOs) to gain an understanding of the maneuver COAs in order to coordinate position areas (PAs) and to determine the ammunition requirements for the upcoming operation.

The FA battalion S-3 develops a tentative artillery COA for each maneuver COA developed during the brigade's MDMP for the brigade combat team FA battalion commander's approval. During the brigade's MDMP, the FSCOORD and brigade combat team FSO coordinate PAs, movement routes, and other terrain data that the artillery requires. As soon as possible, the S-3 initiates ground or aerial reconnaissance of potential routes, PAs, landing zones, pickup zones, and rearm, resupply, and refuel position locations to support the upcoming operation. The main function of the artillery staff's prior planning with the brigade is to ensure that the brigade produces a COA the artillery can support, and to help the FA staff produce a quality, synchronized field artillery support plan (FASP) as soon as possible after the brigade's OPORD.

Prior to attending the brigade combat team MDMP, the FA battalion commanders receive an informal FA battalion staff update from each of the primary staff sections. The S-2 briefs the commander on initial IPB products, such as modified combined obstacle overlays (MCOOs) and situational templates (SITTEMPs), if available. The S-3 updates the

commander on current howitzer, radar, meteorological measuring set, and Position Azimuth Determining System statuses. The sustainment planner or the XO briefs the commander on the status of Class I (water), Class III, and Class V supplies, and maintenance, medical, and personnel. This information helps the commander accurately represent the brigade combat team artillery battalion during the brigade combat team's MDMP; thus ensuring the development of a sustainable COA from the artillery's perspective.

Several hours prior to the start of the brigade's MDMP, the battalion XO and a logistics planner (personnel officer [S-1] or logistics officer [S-4] battle captain) move to the tactical operations center (TOC) to start the planning process. The XO performs the chief of staff role and supervises the MDMP. This centralized planning process with the XO in the lead ensures that the FASP is synchronized from inception.

As soon as possible, during the brigade combat team's MDMP, the FA battalion commander issues initial planning guidance to the XO and the S-3. The commander addresses the following: commander's critical information requests (CCIR), type of order to produce, any movement instructions, input to the reconnaissance plan, additional tasks to batteries, input to the time plan, and type of rehearsals to conduct.

Appendix A, *Step 1: Mission Receipt*, includes a planning action checklist and products worked/developed during this phase of the MDMP. In addition, an example of an XO timeline worksheet for operations with a planning action checklist is attached, as well as action officer and recommended guidelines for percentages of time allotted per action step.

Step 2: Mission Analysis

Mission analysis, as outlined in Army Tactics, Techniques, and Procedures (ATTP) 5-0.1, *Commander and Staff Officer Guide* (September 2011), consists of 19 steps that can be divided into two parts: task analysis and the update of staff running estimates. These two parts of mission analysis take place simultaneously. Furthermore, these 19 steps for mission analysis contained in ATTP 5-0.1 should be used as a guideline to ensure completeness of the analysis rather than be used as a strict sequential list that must be followed. The mission analysis procedures outlined below are written for a compressed timeline and the steps are performed in a fires MDMP functional order versus a sequential order.

Mission analysis is a critical step in the MDMP. When performed properly, it provides the staff with an understanding of the battalion's role in the brigade's operation and what parameters the battalion must operate within to meet its mission. The XO must ensure that the staff has sufficient time to do a thorough mission analysis.

Upon returning from the brigade combat team OPORD brief, the FA battalion S-2, S-3, and battalion fire direction officer (or battalion fire direction center representative) conduct a quick mission brief to the assembled staff, while the operations noncommissioned officer (OPS NCO) lets the staff know where on the unit electronic portal the order annexes can be retrieved, or he makes copies and distributes appropriate annexes to each staff section. During this mission brief, the S-2 provides a quick brief on the terrain and enemy using the MCOO and SITTEMPs, if available. The S-2 can use the brigade's IPB products to conduct this brief if the battalion's products are not completed during prior planning. The S-3 outlines the brigade's mission, the concept of operation, and the brigade commander's intent, and defines the areas of operation and interest to the battalion. The XO reviews and posts the timeline the staff will follow to produce the FASP. This quick mission brief ensures that the staff has a good understanding of the brigade's mission, concept of operation, and the brigade commander's intent prior to beginning mission analysis for the battalion.

After the mission brief, staff members conduct task analysis on their respective annex of the brigade combat team OPORD using the mission analysis worksheet (see Appendix B). The purpose of task analysis is to identify specified, implied, and essential tasks; constraints, restrictions, facts, necessary assumptions, and forces available; and to develop requests for information (RFIs). The XO and the S-3 focus their task analysis on paragraphs III and IV of the OPORD and the fire support annex. They then identify the fire support tasks (FSTs) that the brigade combat team tasked the FA battalion to accomplish. A fully developed field artillery task (FAT) addresses task, purpose, method, and effects. The tasks specify whether the target must be suppressed, neutralized, destroyed, screened, or obscured. The purpose describes how the successful engagement of the target contributes to the maneuver commander's plan (taken from the FST's purpose). The method discusses how the artillery battalion will achieve the task. The staff determines the method for each FAT during COA development. Effects describe what the artillery battalion must accomplish to successfully achieve the task.

The S-2 focuses the intelligence effort on completing the IPB products (e.g., MCOO and SITTEMPs), developing the initial CCIR, and identifying the battalion's requirements to support the brigade's reconnaissance and surveillance plan. The S-2 notifies the S-3 of priority intelligence requests (PIRs) that the brigade tasked the battalion to answer. The S-3 then uses this information to develop the reconnaissance plan. The plans officer uses the command post of the future (CPOF), or other automated means, to post the results of each staff section's mission analysis. The battalion and brigade signal (S-6) cell should define standard operating procedure automated electronic processes during the MDMP.

Concurrently, each staff section updates its running estimates to ensure it has the assets available to meet the tasks assigned to the battalion in the brigade order. The staff focuses its effort on identifying shortfalls that could negatively impact the operation. Once a shortfall is identified, the staff section develops solutions to overcome the shortfall with internal assets, or it requests assistance from higher headquarters. Shortfalls are posted on the mission analysis CPOF tab and requests for assistance are posted as RFIs. These shortfalls eventually become part of the risk assessment for the operation. The logistics planner focuses his running estimates on Class I (water), Class III, Class V, medical, and maintenance.

Next, the XO and the S-3 identify the essential task(s) the battalion must accomplish to make the brigade's operation a success. These essential tasks are used to develop the "what" portion of the revised mission statement. Together the XO and the S-3 draft the battalion's restated mission.

After developing the restated mission, the XO conducts an initial risk analysis for the operation by reviewing shortfalls assessed by the protection officer and staff, and by reviewing hazards negatively impacting combat power that could possibly cause the battalion's operation to fail. The S-3 updates the reconnaissance plan that was developed during prior planning while the brigade completed its MDMP. The XO reviews and updates the timeline.

Mission analysis concludes with the formal mission analysis brief to the commander. The brief should be quick and succinct, focusing on information the commander needs to understand the concept of the mission and should outline the parameters within which the battalion has to operate. Each staff section briefs on the current status and only discusses shortfalls. A suggested mission analysis briefing agenda and the products of mission analysis are listed in Appendix B.

After the mission analysis brief, the commander approves or modifies the restated mission, approves or modifies the timeline, provides the initial intent, and issues guidance to the staff. If time permits, the commander should provide written guidance. A checklist for the commander's guidance is located in Appendix C. At a minimum, the commander should address enemy and friendly COAs for staff consideration, priority of FATs, guidance on method(s) to accomplish specific FATs, input to the CCIR (especially PIRs) and RFIs, and should provide his initial intent. Within 30 minutes of receiving the commander's guidance, the operation section issues another warning order to the units. Prior to starting the COA development and COA analysis, the XO and the S-3 review the facts and assumptions to ensure they are up to date. The XO updates the timeline based on the commander's guidance. Upon completing updates of facts and assumptions, mission analysis ends and COA development begins.

Appendix B, *Step 2: Mission Analysis*, includes a planning action checklist and products worked/developed during this phase of the MDMP. In addition, mission analysis and product worksheets are attached.

Step 3: Course of Action Development

The first step of formal COA development is to review and update facts, assumptions, and forces available that were identified during mission analysis. The second step is to generate conceptual possibilities to support the maneuver brigade's plan, beginning upon receipt of the brigade's first warning order. Additionally, by having the FA battalion FSCOORD, brigade FSO, or LNOs participate in the brigade's MDMP, the FA battalion should have the foundation of its COA developed. To begin, the XO or the S-3 posts all assets the battalion has available and graphically draws a concept sketch of the area of operation on the CPOF. The staff uses the MCOO and SITTEMP posted on the operations map to select firing positions and support locations (initial positions are selected during the brigade's MDMP). Fire support coordination measures, observer positions, FA order of combat, and forward observer utilization should be considered as factors in selecting position areas. The areas selected are transferred to the concept sketch and assets are set in position. In addition, alternate PAs are selected and posted on the sketch. Firing positions are selected based on the following criteria:

- The weapon range supports accomplishment of FATs.
- Terrain supports firing in terms of cant and site to crest.
- Positions are located away from high speed enemy avenues of approach or enemy objectives.
- Good routes are designated for resupply.
- Movement routes support positions for ground and air.
- The ability to communicate is confirmed.
- Radar deployment considerations such as cant mask angle and search azimuths are verified.

The S-2's MCOO should have restrictive cant zones depicting inter-visibility lines. A well-developed MCOO will make potential PAs very apparent. The S-3 coordinates with the brigade S-3 to verify that PAs and support locations selected by the FSCOORD and brigade FSO during the brigade's COA development are still available for artillery use. This coordination is essential to ensure that the artillery battalion has near

exclusive use of the terrain before developing a scheme of maneuver for each COA. The XO and the staff generate the number of conceptual COAs based on the commander's guidance.

The next step is to develop a scheme of maneuver for each COA. The scheme of maneuver addresses, in detail, how the battalion's assets can accomplish the commander's intent and the FATs. The scheme of maneuver must address:

- The movement plan to locate batteries and sections into primary positions.
- Azimuths of fire.
- Planning range fans.
- Radar coverage areas.
- Listing of FATs (in task, purpose, method, and effects format).
- Tasks to subordinate elements.
- Alternate positions.
- Survey plans.
- Engineer support.
- Air defense artillery support.
- Meteorological measuring set.
- Priorities of support.
- Concept of sustainment support.
- The communication plan.

The XO must ensure that the entire staff is involved in COA scheme of maneuver development to ensure it is feasible. The XO and the S-3 must ensure that all available assets are incorporated into the scheme of maneuver. Furthermore, when developing multiple COAs, the XO and the S-3 must ensure that each COA is unique from the others. If time permits for the development of only one COA, the commander must be involved in its development.

The final step of COA development is to conduct a quality control test on the COA. Check the COA for: feasibility, acceptability, suitability, distinguishability, and completeness (FAS-DC test). The COA is feasible if it meets the commander's intent within time, space, and resource constraints. Next, the COA is acceptable if it entails prudent risks and ensures the unit is combat effective at the end of the operation. The commander must define prudent risks. The COA is suitable if it accomplishes the mission and meets the commander's intent. The distinguishability test is used when developing multiple COAs. A COA is distinguishable if it has significant differences from other COAs in terms of how the battalion will move its units (echelon versus in a mass), modes of transportation (ground convoy versus air assault), positioning of key assets (location of radar or command posts), control of fires (establishing quick-fire channel with all weapons locating radars), and time of operation (day versus night).

Finally, a COA is complete if it addresses the *who*, *what*, *when*, *where*, *how*, and *why* questions concerning all elements participating in the operation. First, the COA must ensure that all elements in the battalion or operational control assigned to it have a role in the mission (who). Second, the COA must clearly outline tasks or actions for subordinate elements (e.g., neutralize priority target AB 3200) (what). Third, the COA should outline the time actions or tasks that will take place (e.g., be in position ready fire on AB 3200 no later than 120200SEP) (when). Fourth, the COA should clearly outline the locations and tentative future locations for all battalion assets (e.g., initial firing positions with azimuth of fire or radar location with primary azimuth of search) (where). Fifth, the COA must clearly outline how the battalion assets will be employed to accomplish the mission (e.g., Bravo Battery will conduct deliberate air assault to PA32) (how). Sixth, the COA must outline the purpose for each task assigned to a subordinate element (e.g., Bravo Battery conducts a deliberate air assault to PA32 to neutralize target AB 3200 to protect the brigade's air assault into objective Rhino) (why).

If the COA passes the FAS-DC test outlined above, then the staff can be assured it has produced a viable COA that will accomplish the mission and the commander's intent. If the commander directed more than one COA, the staff would repeat steps two and three for each additional COA. A checklist the XO or the S-3 can use to ensure the development of quality COAs can be found in Appendix F.

Appendix C, *Step 3: Course of Action Development*, includes a planning action checklist and products worked/developed during this phase of the MDMP. In addition, Appendix C has the commander's guidance and COA quality control checklists.

Step 4: Course of Action Analysis

The heart of COA analysis is the wargaming process, which consists of eight steps. Wargaming allows the staff to visualize the operation at critical points to ensure that all assets are synchronized in time and space to accomplish the mission and meet the commander's intent. Wargaming is essential to developing a synchronized COA; thus, the XO must allocate sufficient time to do a thorough wargame.

A successful wargame depends on good preparation prior to the start. First, the OPS NCO and plans officer gather the products from mission analysis and COA development. They post the COA sketch, a list of specified and implied tasks (FATs and FSTs), facts and critical assumptions, RFIs, the synchronization matrix to record results, and a list of assets available. Additionally, they set up the planning cell so that all seats are oriented to the COA sketch and the synchronization matrix so that all posted materials can be seen by all. While the plans area is prepared for wargaming, the XO and the S-3 determine critical events to wargame and COA selection criteria, if wargaming more than one COA. Choosing selection criteria prior to the start of wargaming reduces bias in comparing COAs. The commander or XO determines the wargaming method based on time available and scope of the operation. When the plans area is set up, the OPs NCO assembles the staff.

Prior to starting the wargaming of a COA, the S-3 briefly reviews the COA for the benefit of staff members not present during COA development and to refresh the staff's memory when working multiple COAs. Also, S-3 ensures that there is a staff member responsible for providing expertise on each of the six warfighting functions for each COA. The XO establishes the rules and sets the time limit. The S-3 runs the wargame with the XO supervising the process. If time is short, the wargame is started at the most critical event. The plans officer posts the critical events at the top of the synchronization matrix. The friendly action – enemy reaction – friendly counter action drill is used for each critical event. The S-2 plays a freethinking, aggressive enemy fighting the COA that the commander requested in his guidance. The S-3 then introduces the critical event and the friendly action. The S-2 describes in detail, the enemy reaction to the friendly action, focusing on how the enemy reaction will impact the artillery battalion's units. The S-3 then discusses the friendly counteraction to the enemy's reaction, again focusing on what the battalion's elements will do. The synchronization matrix is used to drive the wargame, recording the results. The XO provides direction to the wargaming efforts by ensuring each component of the synchronization matrix is considered for each critical event and that all staff members are actively participating in the wargame.

The Combat Training Center (CTC) best practices for the standard warfighting function synchronization matrix were redesigned to make it more useful in wargaming COAs for artillery battalions (see Appendix D). This modified matrix is called the fires wargame synchronization matrix. The fires wargame synchronization matrix includes all six of the warfighting function teams. The sub-components of a FAT are the task, purpose, method (priority of fires, priority of targets, battery tasks, movement, survey, radar deployment, meteorological schedule, munitions, and fire support coordination measures), and effects. The FAT section of the fires wargame synchronization matrix contains most of the elements necessary to synchronize a FA battalion's COA. The matrix is a tool ensuring all of the battalion's assets are focused on each critical event.

Furthermore, the artillery wargame synchronization matrix has a section for risk analysis to ensure the staff identifies high-risk hazards associated with critical events and assigns reduction measures to subordinate units or, if necessary, even modifying the COA. If the staff waits until after wargaming to conduct risk assessment and decides to modify a COA to reduce risk, then it must go back, wargaming the changes that were made to the COA. Therefore, a staff saves time and effort by considering risk management in wargaming.

For instance, Appendix D contains a partially completed FA wargame synchronization matrix with the results of wargaming for setting the defense at the Joint Readiness Training Center. During this phase of the operation, both firing batteries and the radar are moving to new positions. The radar moves and locates with Bravo Battery. The deception radar moves and locates with Alpha Battery. The battalion has an engineer "blade team" to assist the batteries in preparing their defenses. Each firing battery moves with a survey team to establish a survey in the new primary and alternate positions. In addition, the support platoon moves Class IV and Class V by air to the new battery positions.

The enemy's reaction to the battery moves should entail increased interdiction of ground main supply routes, more direct action by members of the opposing force, and sniper and mortar attacks on battery positions to disrupt setting the defense. The battalion's counteractions to the enemy's reactions are:

- Requesting the brigade to provide a maneuver force to clear main supply routes prior to firing batteries moving.
- Increasing soldier alertness to civilians and civilian automobiles around battery areas or the convoys.

- Establishing traffic control points around battery positions and digging in with overhead cover.
- Requesting radar coverage from force FA headquarters or a mutual supporting unit while the battalion radar relocates.

As illustrated by this example, the FA wargame synchronization matrix clearly and succinctly prompts and captures all the functions an artillery battalion must perform to set the defense. **Note:** Be sure to include time-distance factors for actions and reactions during the wargame.

Upon completion of the wargaming of a COA, the plans officer posts all external coordination requirements to the RFI list and assigns a staff agency responsible for answering each one. If the staff has only one COA to wargame, it will begin FASP preparation. If the staff must wargame other COAs they will construct an artillery wargame synchronization matrix and begin the next wargame. Appendix D provides a detailed checklist to help set the conditions for a productive wargame and a list of the products created from this process.

To summarize, the wargame portion of COA analysis is critical to the synchronization of a plan. The XO must ensure that the staff has time to conduct a thorough wargame for each COA. If time is limited, then the commander should outline a single COA during mission analysis so that the XO can thoroughly wargame beginning with the most critical event.

Additionally, the XO supervises the wargame process, ensuring all staff members participate by using his experience to raise questions, resolve issues, and to ensure proper procedures are being followed. The S-3 runs the wargame to guarantee all assets are being used and are focused on the critical time and place.

Appendix D, *Step 4: Wargaming*, includes a planning action checklist and products worked/developed during this phase of the MDMP. In addition, worksheets for the steps taken, products used, and a synchronization matrix for wargaming are attached.

Step 5: Courses of Action Comparison

After wargaming all COAs, the staff now conducts COA comparison to select the COA best supporting the mission and commander's intent. The commander or XO assigns weights to the criterion based on relative importance. Weights are determined based on the commander's assessment of the relative importance of each criterion to the accomplishment of the mission. Next, the staff conducts a subjective analysis of each COA by listing its respective advantages and disadvantages with regard to the evaluation criteria established prior to wargaming. The staff uses this analysis to determine which COA best supports the respective evaluation

criterion. The COA the staff rates as the best for a specific evaluation criterion is given the number one, the second best the number two, and the third best the number three. Each COA's assigned number value is multiplied by the weight factor to determine the weighted total, which is the number found in parenthesis in each cell (see Appendix E). The above process is repeated for all evaluation criteria. After the staff rates each COA on all criteria, the total numerical value and total weighted values are summed. The COA with the lowest weighted value is the preferred COA and the one recommended to the commander. In Appendix E, COA number one would be the preferred COA because it has the lowest weighted value total (40).

The use of the COA comparison matrix provides several advantages to the staff in selecting the best COA. First, this decision matrix technique also allows the commander and/or XO the flexibility to weigh factors in accordance with their relative importance to the operation. Thus, the factors the commander feels are the most important are given a greater weight to influence the decision process. Second, this comparison matrix provides the staff with an objective tool to evaluate the COAs. This objectivity helps reduce the staff's bias toward any one COA, which ensures that the COA best meeting the evaluation criteria is selected for recommendation to the commander. If the staff's analysis cannot determine a best COA to recommend to the commander, then the XO selects one based on his experience.

Appendix E, *Steps 5, 6, and 7: Course of Action Comparison, Approval, and Orders Production*, includes a planning action checklist and products worked/developed during this phase of the MDMP. In addition, a worksheet for the COA comparison matrix is attached.

Step 6: Course of Action Approval

The results of the COA comparison analysis are briefed to the commander in the COA analysis brief, after which the commander will select a COA based on the staff's input. The commander must decide to select the staff's recommended COA, modify a COA, or reject all proposed COAs. If the commander rejects all proposed COAs, the staff must revisit mission analysis and start COA development over again. Likewise, if the commander modifies a COA, the staff must wargame the modifications.

When operating under a compressed time schedule and developing only one COA, the XO and the S-3 brief the commander on the results of the wargame and outline the advantages and any disadvantages to the COA. The commander will decide to accept the COA or modify it. If the commander modifies the COA, the staff must wargame the modifications.

After selecting or approving the COA, the commander should review his intent statement and CCIR and update as necessary. Furthermore, the commander should issue any additional guidance regarding priorities of support, risk management, modifications to the timeline, type of order, or type of rehearsal. After receiving the commander's approved COA and refined guidance, the S-3 issues another warning order to subordinate units so that they can refine their plans and start actions, such as distributing ammunition and moving elements.

Step 7: Orders Production

Following the COA selection or wargame for a single COA, the staff begins preparation of the FASP. Staff members use the FA wargame synchronization matrix to write a majority of their respective paragraphs for the order. The XO encourages staff sections to "cross talk" while they are preparing their respective portions of the order. The centralized approach to preparing the FASP facilitates "cross talk" between the staff, which in turn leads to even greater synchronization of a plan. In addition, the XO ensures that all RFIs are answered prior to publication of the order.

When the first draft of the FASP is completed, the XO and the S-3 conduct a review of the order to ensure that it is complete and that the products are synchronized (see Appendix E). They check the base order to ensure that:

- All FATs have redundant means for accomplishment.
- All specified and implied tasks are incorporated into the plan.
- All RFIs are answered.
- All information, such as tasks to subordinate units and coordinating instructions recorded during the wargame, are contained in the FASP.
- The radar deployment order agrees with the base order.
- The operations and sustainment synchronization matrixes are synchronized and completed (see Appendix E for the complete checklist).

In addition, the XO and the S-3 conduct a digital overlay synchronization check through the CPOF. This check involves posting the operations digital overlay with brigade digital graphics and then placing the enemy situational template and the sustainment digital overlays on top. The XO and the S-3 check to ensure that:

- Locations of battalion assets are accurately posted.
- Battalion assets are not posted in the same location as brigade assets.

- The battalion has not posted assets on enemy objectives or avenues of approach.
- Ambulance exchange points are established on roads away from the enemy's main avenues of approach and not on roads scheduled to be blocked as part of the brigade's obstacle plan.
- Firing elements can range the entire brigade sector throughout the operation.
- Firing batteries' azimuths of fire do not overlap.

These final checks by the XO and the S-3 ensure that the FASP is complete and the battalion has a solid, synchronized plan to accomplish its mission (see Appendix E).

About 30 minutes prior to the FASP brief, the XO checks with each primary staff member and runs through a rehearsal on what they will brief at the order. The FASP should be rehearsed collectively to ensure that all talking points are nested in the battalion commander's intent and brigade commander's guidance for fires. This rehearsal technique helps the XO focus each staff officer's brief on the key points, thus saving time in the FASP brief. In addition, the battalion S-3 has the battery commander and a representative from each of the TOC shifts, report to the FASP brief 10 minutes early so they have time to read the FASP. This allows them time to formulate questions or points of clarification to ask during the FASP brief. Furthermore, they are also familiar with the content of the FASP, so that they do not have to take numerous notes and can listen to the brief. At the start of the FASP brief, the OPS NCO takes roll and conducts an inventory of the FASP to ensure everyone has a complete order. Appendix E contains a CTC best practices FASP briefing agenda. At the conclusion of the FASP, each battery commander backbriefs the battalion commander on the tasks and purposes for which his unit is responsible. This backbrief is a rehearsal technique used to ensure that battery commanders understand their role in the upcoming operation, to resolve concerns, or to answer questions.

Appendix E, *Steps 5, 6, and 7: Course of Action Comparison, Approval, and Orders Production*, includes a planning action checklist and products worked/developed during this phase of the MDMP. In addition, checklists for quality control and a briefing agenda for the FASP are attached.

Supervising Preparation for and Execution of the Field Artillery Support Plan

The staff's work does not end once the order is published. The staff must diligently supervise the preparation and execution of the FASP to ensure that the battalion is prepared to accomplish its mission. *This is one of the most important steps of the troop leading procedures*. The XO and the S-3 must ensure that the staff invests the time to properly monitor the preparation for executing the mission. Discussed below are procedures FA staffs can use to assist in supervising the preparation and execution of the mission.

Rehearsals

Rehearsals are essential tools for efficient execution of a plan because they help ensure that a plan is well synchronized prior to execution. The XO must allot time to do some type of rehearsal. Field Manual (FM) 3-09, Section II: *Fire Support Preparation*, is an excellent reference for integrated digital and tactical fire support/FA rehearsal. Additionally, the Center for Army Lessons Learned, *Fires Rehearsals Handbook*, contains a list of steps for conducting any type of fires rehearsal. It also discusses the various types of rehearsals in detail.

Generally, the terrain model technique is the most beneficial and efficient rehearsal technique for fully visualizing the operation. The XO must ensure that each player is present at the terrain model talking and walking through his portion of a critical event. The walk- and talk-through ensures the player knows his part in the critical event and also helps other players visualize how each element contributes to the overall plan. In addition, the walk-through on the terrain board familiarizes the players with the area of operation. The S-3 can coordinate with the brigade to use its digital CPOF terrain board overlay to conduct the FA battalion rehearsals.

The FA battalion commander, brigade FSO, XO, S-3, S-2, battalion fire direction officer, and battalion LNOs should attend the brigade's combined arms rehearsal. At this rehearsal, the brigade commander reviews his intent and concept of the operation, and each maneuver commander and his FSOs walk through their respective plans and discuss how they can contribute to achieving the brigade commander's intent by phase. The brigade FSCOORD and FSO note any refinements the brigade commander makes to the FASP and clarifies them during the brigade fire support rehearsal.

The FA battalion must conduct several rehearsals to ensure the FASP is thoroughly synchronized. Immediately following the combined arms rehearsal, the FA battalion conducts the brigade fire support rehearsal for the brigade commander, which is attended by the brigade commander (when available), XO, S-3, S-2, S-4, engineer, FSCOORD/commander,

FSO, counterfire officer, target acquisition platoon leader, Air Force air LNO, Army aviation LNO, air defense and airspace management officer in charge, the direct support battalion XO, S-3, and S-2, battalion fire direction officer, radar technician, task force commanders (when available), and the task force FSOs. This rehearsal ensures that the FA battalion fires are synchronized with the brigade's plan and that they will accomplish the brigade commander's intent for fire support. Additionally, the FA commander and the brigade FSO must ensure that all fire support assets are integrated to accomplish the brigade commander's intent for fires. Thus, they are responsible for leading the brigade's fire support rehearsal.

The rehearsal should start with the brigade commander restating his concept for fires and reviewing the FSTs. The brigade FSO must clearly articulate the purpose, method, and effects for each FST. Next, the brigade S-2 portrays the enemy situation at the first (the most important) critical event to be rehearsed. The brigade FSO, using the fire support matrix, has unit observers respond as deployed from front to rear for each target associated with the critical event. Each participant responsible for a target should address the following about that target:

- Target purpose and priority.
- Target location.
- Trigger points (daylight and night).
- Primary and alternate observers.
- Communication nets (primary and backup).
- Weapons systems engaging.
- Type and volume of munitions.

The fire support rehearsal provides the FA battalion key leaders a clear understanding of the FA's role in the brigade's overall fire support plan and provides them with an opportunity to hear last-minute refinement from the brigade commander with regard to fire support.

Second, the FA battalion staff must conduct a combined operations and sustainment rehearsal attended by the commander, primary and special staff, battery commanders, and first sergeants. The purpose of this rehearsal is to ensure that the FA battalion's operations and sustainment are synchronized and that all participants know their parts in order to support each critical event. The XO supervises the rehearsal to ensure standards are met and all issues are resolved. At a minimum, each battery commander and each key staff leader should leave the rehearsal with a full understanding of what is expected of his unit or staff section, confirmation on the viability

of his plan to accomplish the assigned tasks, how his tasks contribute to the accomplishment of the battalion's mission, and how his tasks impact on other elements in the battalion. The S-2 performs the role of the enemy commander and visually portrays the enemy SITTEMP at the time of the critical event. The S-3 reviews the friendly concept of the operation and calls on each operational element to walk and talk through their tasks and purposes for the critical event. After operational elements discuss their parts, the S-1 and the S-4 discuss the tasks and purposes for the sustainment elements to support the operational plan for the given critical event. Linking the sustainment and operational rehearsals ensures that the sustainment operations are synchronized to support the battalion's operational plan. For example, operational events or times are linked as trigger mechanisms for sustainment support missions. Rehearsal participants must be prepared to discuss details of the operation such as time-distance factors for moves, occupations, rigging operations, haul capacities, fuel delivery capacities, fuel flow rates, and other essential areas to ensure that the details of the plan are fully addressed. If issues arise during the rehearsal or changes are made to the plan, the plans officer records them on the synchronization matrix. The XO ensures that all issues are resolved before the rehearsal ends.

Immediately following the combined operations and sustainment rehearsal, the battalion should conduct a casualty evacuation rehearsal attended by the XO, S-1, headquarters and headquarters battery commander, medical platoon leader, first sergeants, and medics. The purpose of this rehearsal is to ensure that the battalion's medical evacuation plan (MEDEVAC) is functional. The XO supervises while the S-1 conducts the rehearsal. The medical platoon leader begins the rehearsal with a review of the battalion's medical concept of operation. The S-1 then has each first sergeant walk and talk through standard and nonstandard MEDEVAC procedures for each critical event. The first sergeants must brief the following for air MEDEVAC request(s):

- Frequency used to request MEDEVAC.
- Call sign.
- Location and marking of pickup zone.
- Security plan for pickup zone.
- Backup ground plan.

For ground MEDEVAC requests the first sergeants must discuss:

- Frequency used to notify the administration and logistics operations center.
- Location of the nearest battalion aid station.

- Location of the nearest ambulance exchange point.
- Security vehicles and personnel.
- Primary and alternate routes.
- Procedures to clear use of route.
- Travel time to aid station or ambulance exchange point.

For nonstandard casualty evacuation (mass casualties), first sergeants must brief the following:

- Procedures to notify the administration and logistics operations center.
- Vehicles by bumper numbers designated as casualty carriers.
- Casualty hauling capacity by vehicle.
- Vehicles for security element by bumper number.
- Number of stretchers.
- Location of aid station.
- Travel time to aid station.
- Primary and alternate routes to aid station.

Having the first sergeants brief the above items ensures that the MEDEVAC plan is functional and thoroughly understood. Furthermore, conducting the rehearsal immediately after the operations and sustainment rehearsal prevents the first sergeants from making a return trip to the TOC location.

The FA battalion's final rehearsal is the technical rehearsal of the fire support plan. This rehearsal involves the entire fire support system from observer to the guns conducted digitally or over the radio. The purpose of this rehearsal is to ensure the entire fire support system understands the concept of fires and can support all FATs the battalion must perform. This rehearsal validates the following:

- Digital nets are operational.
- Shift times between priority targets.
- Batteries can range critical targets.
- Batteries have enough types of ammunition on hand to support operations.

- Observers can communicate through the appropriate channels to execute targets.
- The length of time it will take to execute the fire support plan.

The brigade FSO and the battalion fire direction officer supervise the execution of this rehearsal. The results from this rehearsal are used to make small modifications to the fire support plan to increase synchronization.

Battle Tracking

Battle tracking subordinate elements' preparation is another tool the FA battalion staff uses to supervise the execution of the FASP. The TOC should have both offensive and defensive graphics on the CPOF to monitor each battery's preparation for the upcoming operation. For instance, in the defense the TOC should track:

- Status of Class III, Class IV, and Class V.
- The preparation of defensive fighting positions.
- Survey control status.
- Preparation of alternate positions, obstacle emplacement.
- Combat power (number of tubes operational).
- The development of a defensive fire plan for intra-battalion fires.

By battle tracking the above information, the TOC knows when each battery is fully prepared to execute the upcoming operation. In addition, this battle tracking will also highlight problem areas that the staff must solve quickly to set the unit up for success in the upcoming operation.

Possible Contingencies

The staff must also think through possible contingencies to ensure that the battalion has options should a particular situation arise. For instance, the sustainment planners should plan for emergency ammunition resupply by having several trucks uploaded with ammunition, convoy order given, the rehearsal conducted, and routes precleared through brigade so the resupply convoy could launch at a moment's notice. In addition, sustainment planners could have A-22 cargo bags or 10K cargo nets pre-rigged for emergency resupply by air. Another example of anticipating contingencies is to have several mess section five-ton trucks downloaded and pre-positioned at the battalion aid station for nonstandard casualty evacuation. By anticipating these and other possible contingencies, the staff reduces the reaction time when the situation arises, thus allowing the battalion to maintain the initiative and freedom of action to execute the FASP.

During the execution phase, the staff must closely track the battle to anticipate any unforeseen problems caused by the enemy, weather, or other aspects of "friction." The CCIR is critical to filter incoming information and to focus the battle staff on important information that would alert it to a changing situation. Additionally, battle captains must monitor execution criteria for decision points. For example, if the decision criteria for launching an emergency ammunition resupply is a firing battery ammunition count dropping below 200 rounds of high-explosive shells and an adjacent battery reporting it had 175 rounds of high explosives remaining, the battle captain would notify the S-3, clear the route, and give the air line of communications the order to launch the emergency ammunition resupply. Furthermore, a well rehearsed and synchronized FASP will allow units the freedom to use initiative to operate within the commander's intent and provide a firm foundation of common understanding, which makes changes easier to implement.

Conclusion

Modifications to the military decisionmaking process (MDMP) and related tools outlined in this handbook should help make the MDMP more user friendly and functional to the field artillery battalion in producing thorough and well-synchronized field artillery support plans. *MDMP and the Field Artillery Support Plan Handbook* fills a gap in the artillery community's existing tactics, techniques, and procedures that is beginning to be addressed in official publications and training courses. The above modifications and tools were validated at the Combat Training Centers. The observers/trainers praised the efficiency and effectiveness of the field artillery modifications to the MDMP. "ON TIME!"

Appendix A

Step 1: Mission Receipt

MDMP Activity	ABCS MDMP Planning Action	Planning Product
Alert the staff (MCS)	• Post the higher HQ order (WARNO, FRAGO, or OPORD) and graphics to the TOC shared folder and server home page. • Notify battle staff of arrival and location of higher order products. • Ensure all available orders from higher HQ are distributed to planning team members. • The XO alerts the battle staff of the pending planning process. Including: who is to attend, who the alternates are, and where and when they should assemble.	
Gather tools (All ABCS Systems)	• Retrieve the tools needed to begin mission analysis. • Gather unit standing operating procedures (SOPs). Note: SOPs must identify a generic list of requirements for particular types of mission. • Notify the staff of the location of the WARNO, FRAGO, OPORD, and graphics or new mission statement on the webpage or shared folder. • Retrieve base order and relevant WFF annexes of higher order, reference materials and tools. • Configure the required maps of the area of operations. • Gather the tools to conduct intelligence preparation of the battlefield (IPB). • Gather existing HHQ and unit running estimates other material and products required. • Import operations overlays from subordinate, adjacent, and higher HQs. • Export operations overlays to subordinate, adjacent, and higher HQs.	• Mission analysis tools • Unit TACSOP
Update running estimates (MCS)	• Direct the battle staff to update running estimates. • Update running estimates to ensure they are current, and contain critical information. • Determine status of friendly units, such as locations, combat capabilities, and level of training, effectiveness, degree of mobility, radiation exposure, limitations, and current missions. • Determine unit resources.	• Updated Running Estimates • Staff Collaboration Plan

Figure A-1

MDMP Activity	ABCS MDMP Planning Action	Planning Product
Perform an initial assessment (MCS)	• Determine the time available from mission receipt to mission execution. • Determine the time needed to plan, prepare for, and execute the mission for HQ and subordinate units. • Develop a staff timeline using reverse planning. (see example next page) • Determine the current IPB products available. • Determine running estimates already current and those that need updating.	• AO assessment • Initial operational timeline assessment • Allocated planning time
Issue CDR's initial guidance (MCS)	Issue initial guidance. Guidance includes: • Initial operational timeline • Fully trained staffs told how to abbreviate the military decisionmaking process (MDMP). If the process is abbreviated, the commander directs which steps are eliminated or reduced in scope. • Time for initial surveillance and/or reconnaissance to begin authorized movement (to include positioning of C2 system nodes). • Additional tasks the commander wants the staff to accomplish. • Collaborative planning times and locations. • Initial IR or CCIR and ISR tasks.	• CDR's initial guidance • Initial operational timeline • Additional staff tasks • Collaborative planning requirements • IPB input • ISR input • Initial WARNO input
Issue the initial warning order (MCS)	Prepare the initial warning (WARNO). The initial WARNO includes: • Type of operation, to include: task, purpose and end state • General location of the operation • Initial operational timeline • Time for any reconnaissance or surveillance to begin • Any movements to initiate • Any collaborative planning sessions directed by the commander Approve the initial WARNO. Post the initial WARNO on the TOC home page and/ or shared folder for supported and supporting units of impending operation (MCS). Inform the battle staff and higher and subordinate units of the location of the initial warning order for their retrieval and upcoming planning requirements. Coordinate dispatch of liaison personnel in accordance with the commander's guidance.	• Type of operation and location • Operational timeline • Initial IR or CCIR • ISR Tasks • Movement

Figure A-2

Executive Officer's Timeline Worksheet

Date-Time Group	Event	Lead
	Parallel Planning/Send WO No. 1	S-3
	Receive the Mission (08%)	XO/S-3
	Initial Mission Analysis (02%)	XO/S-3
	Mission Brief to Staff (02%)	S-2/S-3
	Mission Analysis/Running Estimates (12%)	XO/Staff
	Send WO No. 2	S-3
	Mission Analysis Brief (02%)	XO/Staff
	Receive CDR's Guidance (02%)	CDR
	COA Development (14%)	XO/S-3
	Send WO No. 3	S-3
	Wargame (18%)	XO/S-3
	FASP Preparation (16%)	XO/Staff
	Send WO No. 4	S-3
	FASP Review (04%)	XO/S-3
	FASP Reproduction (12%)	XO/Staff
	FASP Brief (08%)	XO/Staff
	CDRs' Backbriefs	CDR
	BDE Task Force Rehearsal	BDE XO
	BDE Fire Support Rehearsal	BDE FSO
	BDE Sustainment Rehearsal	BDE XO
	Battery Operation Order	Battery CDRs
	FA Operations/Sustainment Rehearsal (1-1.5 hrs.)	XO/S-3
	FA Casualty Evacuation Rehearsal (45 min.)	XO/S-1
	FA Technical Rehearsal (1 hr.)	S-3/BDE FSO
	Attack or defense time	XO/S-3/BDE FSO

Table A-1

Notes:

1. Percentages in parentheses are guidelines for allocating the one-thirds of planning time.

2. Times for rehearsals are suggested times for planning purposes only.

Appendix B

Step 2: Mission Analysis

MDMP Activity	ABCS MDMP Planning Action	Planning Product
Analyze the higher HQ order (MCS)	Define the battlefield. Ensure battle staffs understanding of the higher HQs order. Evaluate the threat. Research order to identify factors that will affect operational planning: • Commander's intent. • Mission, including tasks, constraints, risks, available assets, and area of operation. • Concept of operation, including the deception plan. • Timeline of mission execution. • Mission of adjacent, front, and rear units, their effecting relationships.	• List of HHQ • operational constraints, supporting resources, requirements • Area of operations (AO) analysis
Perform Initial IPB (MCS , AFATDS)	Using AFATDS: • Ensure the IPB process supports the commander and battle staff in decision making and provides essential data for creation of valid running estimates and annexes. • Define the battlefield. • Describe the battlefield's effects. • Evaluate the threat. • Determine threat courses of action (COAs). • Analyze the threat and the effects of the environment on the battalion. • Identify facts and assumptions that determine the likely threat course of action. • Identify constraints on COAs. • Identify gaps in intelligence. • Develop modified combined obstacle overlay (MCOO). • Identify High Value Targets (HVT). • Develop situational awareness or operations (SA or OPS) overlays. • Collect input to develop IPB templates. • Develop doctrinal templates depicting how the threat operates when unconstrained by the effects of the terrain. • Develop initial event templates from the SITTEMPs. • Develop initial intelligence collection plan. • Submit IRs to update facts and verify assumptions. • Ensure IRs is clearly identified and RFIs are submitted.	• Input to IPB template • Analysis of event template • SITTEMP • IR list • HVT List • AOR threat assessment • MCOO • Information gaps

Figure B-1

MDMP Activity	ABCS MDMP Planning Action	Planning Product
Determine specified, implied, and essential tasks (MCS)	✓ Identify specified tasks from: ▪ Specifically assigned by higher HQs ▪ Paragraph two and three of the higher HQs order or plans and annexes ▪ SA and OPS overlays ✓ Identify implied tasks derived from the higher HQ order, the enemy situation and courses of action, and the terrain (Analysis of the doctrinal requirements for each specified task may provide implied tasks). ✓ Assist the commander in determining essential tasks. ✓ Express status of units in capabilities and limitations. ✓ Record specified, implied, and essential task analysis in respective running estimates. ✓ Present to the commander a tentative list of specified, implied, and essential tasks that must be executed to accomplish the mission for his approval. ✓ Identify additional resources needed to accomplish the specified and implied tasks.	✓ Specified task list ✓ Implied task list ✓ Essential task list ✓ Updated running estimates
Perform Initial IPB (MCS , AFATDS)	✓ Examine additions to, deletions from, current task organization, supporting relationships, and status (current capabilities, limitations) of all units, as derived from the S-3 sections MCS. ✓ Determine projected status of available assets based on flow of replacement supplies, personnel and equipment, and operational readiness rates. ✓ Record assets available and corresponding capability in staff estimate. ✓ Report status of any units that may operate in the battalion AO. ✓ Compare available assets and resources with tasks to identify capability shortfalls and additional resources required. ✓ Consider the impact of attachments and detachments to the battalion, and the overall combat capabilities of its subordinate units. ✓ Note: Battle captain displays an accurate COP or picture of the battalion's combat capabilities in the Command Information Center (CIC) for the commander. Note the following: ▪ Force XXI Battle Command Brigade and Below (FBCB2) and the Maneuver Control System ▪ (MCS) provides the CDR and battle staff a near real-time picture of the disposition of the combat and sustainment units in BN/AO. ▪ Provides the commander and battle staff the current enemy picture. ▪ Advanced Field Artillery Tactical Data System (AFATDS) provides the commander and battle staff the current location of supporting artillery units, current ammunition status, and range capabilities. ▪ Provides projected status of available assets based on flow of replacement of supplies, personnel and equipment, and operational readiness rate.	✓ Input to IPB template ✓ Analysis of event template ✓ SITTEMP ✓ IR list ✓ HVT List ✓ AOR threat assessment ✓ MCOO ✓ Information gaps

Figure B-2

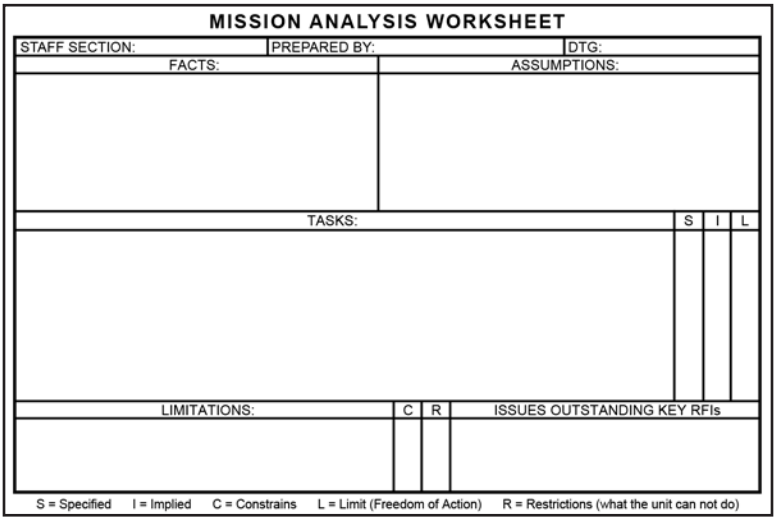
MDMP Activity	ABCS MDMP Planning Action	Planning Product
Determine constraints (MCS, FBCB2)	✓ Identify the higher commander's constraints and limitations that restrict freedom of movement. ✓ Locate them (normally) in the scheme of maneuver, concept of operations, and coordinating instructions. ✓ Determine ROE/ROI constraints. ✓ Initiate mission analysis worksheets.	✓ Constraints list. ✓ Completed mission analysis worksheets
Identify critical facts and assumptions (All ABCS Systems	✓ List all appropriate assumptions received from higher HQ. ✓ Develop facts and assumptions about adversaries and others, the AO, and the operational environment. ✓ Identify the information the commander may need to convert assumptions into facts. ✓ Ensure that assumptions are cleared with higher HQ and are consistent with the higher HQ's plan. ✓ State expected conditions over which the commander has no control but which are relevant to the plan. ✓ List conditions that would invalidate the plan or its concept of operations. ✓ Reassess both facts and assumptions throughout the planning process. ✓ Assess the impact new information has on a plan and COAs when a fact is no longer true or an assumption is no longer valid.	✓ List of facts and assumptions ✓ Input to the initial ISR plan
Perform risk assessment (MCS)	✓ Inform staff personnel of the commander's initial assessment of where he may take tactical risks. ✓ Assess risks throughout the planning and operations process with a risk level for each hazard. ✓ Combine risk assessment with the OPSEC process, vulnerability assessments, and intelligence products. ✓ Prepare recommended controls for risks associated with operational tasks.	✓ Risk assessment ✓ Force protection issues ✓ Cultural issues ✓ Local populace issues ✓ Environmental issues ✓ Coalition issues
Determine initial CCIR and EEFI (All ABCS Systems)	✓ Determine information the CDR needs to support his battlefield visualization to determine or validate COAs. ✓ Filter information available to the commander by defining what is important to mission accomplishment. ✓ Focus the efforts of subordinates and battle staff personnel by assisting in allocation of resources and making recommendations. ✓ Nominate information requirements (IR) to become CCIR. ✓ Continuously review the CCIR during the planning process and adjust them as situations change. ✓ Determine the most time-sensitive CCIR. ✓ Identify and nominate EEFI.	✓ Recommended CCIR list ✓ Recommended EEFI ✓ PIR and IR modifications
Write the restated mission (MCS)	✓ Ensure all staff and subordinate and attached elements receive and understand the mission statement. ✓ Ensure restated mission contains all elements of a mission statement and includes on-order (O/O) missions. ✓ Complete mission analysis worksheets.	✓ Draft restated mission ✓ Mission analysis worksheets ✓ On-Order mission list

Figure B-3

MDMP Activity	ABCS MDMP Planning Action	Planning Product
Deliver a mission analysis briefing (All ABCS Systems)	✓ Brief: (Determine providing BCS system) • Higher HQs mission and higher commander's intent, two levels up • Concept of the operation, and deception plan of the higher HQ one level up • Commander's initial guidance • Combined Obstacle Overlay (COO), modified combined obstacle overlay (MCOO) • Maneuver corridors (MCs), avenues of approach (AAs) • Terrain products, terra base • Situational template (SITTEMP), event template, doctrinal template • Named areas of interest (NAIs), target areas of interest (TAIs) • Constraints and limitations on the operation • Forces available • Possible hazards and their risks • Recommended initial CCIR • Proposed planning and execution timelines • Essential fire support tasks (EFST) • FS assets available and projected status • Scheme of fires impacts on battalion and imposed constraints or restrictions on the battalion FS plan. • FSCMs applicable in the area of operation (AO) • Fires tasks, purpose, method, and effects • Relevant geospatial and engineer information • ADA available combat power (current and projected) • Early warning (EW) coverage in the battalion AO • Facts, assumptions, or possible risks pertaining to air defense • Combat power of units (current and projected) • Supply status critical to further planning (CSR, etc.) • Facts and assumptions about logistics needed for further planning • Restated mission	✓ Approved restated mission and commander's intent
Approve the restated mission	✓ Ensure all staff, subordinate and attached elements receive and understand the approved mission statement.	✓ Approved restated mission
Develop the initial CDR's intent	✓ Review operational task requirements with the CDR's intent. ✓ Modify commander's intent statement after reviewing the mission analysis briefing and the restated mission. ✓ Ensure understanding by subordinates two levels down.	✓ Initial CDR's intent
Issue CDR's planning guidance	✓ Review CDR's guidance for inclusion of subjects addressed in paragraph 3-109, FM 5-0.	✓ CDR's planning guidance
Issue a WARNO	✓ Review WARNO for inclusion of subjects addressed in paragraph 3-110, FM 5-0.	✓ WARNO
Review facts and assumptions	✓ Maintain a record of facts and assumptions. ✓ Assess and update facts and assumptions.	✓ Updated list of facts and assumptions ✓ WARNO

Figure B-4

Mission Analysis Worksheet



MISSION ANALYSIS WORKSHEET

STAFF SECTION:	PREPARED BY:	DTG:
FACTS:	ASSUMPTIONS:	

TASKS:	S	I	L

LIMITATIONS:	C	R	ISSUES OUTSTANDING KEY RFIs

S = Specified I = Implied C = Constrains L = Limit (Freedom of Action) R = Restrictions (what the unit can not do)

Figure B-5

Products of Mission Analysis Worksheet

• Facts.	• Restated mission.
• Assumptions necessary for planning.	• Timeline.
• Specified tasks (to include fire support tasks).	• List of critical shortages.
• Implied tasks.	• Modified combined obstacle overlays (MCOO) (with potential position areas).
• Essential tasks and field artillery tasks.	• Situational templates.
• List of constraints.	• Initial commander's critical information requirement.
• List of restrictions.	• Commander's guidance.
• Requests for information.	• Commander's intent.
• Initial reconnaissance plan.	• Warning.

Table B-1

Appendix C

Step 3: Course of Action Development

MDMP Activity	ABCS MDMP Planning Action	Planning Product
Analyze relative combat power (MCS)	✓ Consider CDR effects guidance along with the other elements of combat power. ✓ Analyze force ratios and determine each force's strength and weaknesses as a function of combat power. ✓ Determine capabilities that apply to assigned missions. ✓ Compare battalion capabilities with threat vulnerabilities. ✓ Identify host nation and multi-national resources. ✓ Gain insight into friendly capabilities that pertain to the operation, type of operation that may be possible from friendly and enemy perspectives, how and when the enemy may be vulnerable, and the additional resources that may be required to execute the mission. ✓ Implement historical minimum-planning ratios for various combat missions, and consider terrain and enemy templating assumptions.	✓ Additional resource requiremet ✓ Threat vulnerabilities ✓ Resource allocation plan ✓ Force ratios
Generate options (All ABCS Systems)	✓ Review CDR's guidance for desired effects. ✓ Determine how the advantages and disadvantages of mission tasks impact each possible COA. ✓ Determine COAs that are not feasible and what information might affect other staff member analysis. ✓ Determine if COA's purpose satisfies the COA selection criteria by changing, adding, or eliminating COAs. ✓ Determine the impact of ROI and ROE on possible COAs. ✓ Determine the purpose of the main and supporting effort. ✓ Review the decisive operation from the CDR's guidance and determine how to mass combat power to achieve its purpose. ✓ Explore shaping and sustaining operations and their impact on decisive operation. ✓ Identify the doctrinal requirements of each type of operation under consideration, to include doctrinal tasks to be assigned to subordinate units.	✓ Advantages and disadvantages list for each COA ✓ Refined HVTL ✓ Essential task list for main and supporting efforts
Array initial forces (MCS)	✓ Determine forces necessary to accomplish the mission and provide a basis for the scheme of maneuver. ✓ Determine ratio of friendly to enemy units required for each task, starting with the main effort and continuing through all supporting efforts. ✓ Consider the impact of available assets / resources on force ratios during determination of initial force array. ✓ Analyze the entire battlefield framework to include the deep, close, and rear battles. ✓ Review the current task organization (TO) to see if changes are necessary. ✓ Determine a proposed forward edge of the battle area (FEBA) for a defense or a line of departure / line of contact (LD/LC). ✓ Validate the allocation of forces based on the ISR plan and the initial terrain analysis. ✓ Develop the initial array of friendly forces starting with the main effort at the decisive point and continuing through supporting effort. ✓ Identify the possible requirement for additional resources as a shortfall. (If the number arrayed is not adequate, the battle staff recommends where to accept risk.)	✓ Force ratios ✓ Initial array of friendly forces ✓ Revised task organization ✓ Risk assessment

Figure C-1

MDMP Activity	ABCS MDMP Planning Action	Planning Product
Develop the concept of operations (MCS, AFATDS)	✓ Refine the initial array of forces. ✓ Display graphical control measures to coordinate the operation and show the relationship of friendly forces to one another, the enemy, and terrain. ✓ Re-evaluate the terrain and the enemy. ✓ Provide space on the flanks of each avenue of approach to allow maneuver and fires. ✓ Allocate any forces remaining from the initial array to weight the decisive operation. ✓ Refine the targeting effort within the ISR Plan. ✓ Correlate the CDR's desired end state with desired effects and criteria of success. ✓ Correlate mission and intent with mission tasks and established success criteria. ✓ Develop a distinct concept of fire support and fire for effects objectives for each COA. ✓ Prioritize the high payoff target list (HPTL). ✓ Determine the impacts of force protection requirements. ✓ Determine the impact of civil-military operations, host nation government, and the social and political background of the country and people. ✓ Develop or refine products to support each COA the staff develops and prepare for wargaming. ✓ Consider concept of operations topics as identified in Para 3-39, FM 5-0.	✓ Operation concept of engagement ✓ Operation objectives ✓ Forces array ✓ MOP and MOE assessment and trends work sheets ✓ Synchronization matrix ✓ Target nominations (HVTL, recommended HPTL) ✓ Prioritized HPTL ✓ PIR and IR modifications ✓ Collection emphasis ✓ Concept of fires ✓ AO assignments ✓ Designation of shaping and sustaining operations ✓ Selected control measures ✓ (graphics) ✓ Risk assessment
Assign headquarters (MCS)	✓ Identify units to perform mission tasks and span of control. ✓ Create a proposed task organization. ✓ Organize tasks by available resource.	✓ Proposed task organization ✓ Asset list ✓ Task list
Prepare COA statements and sketches (AFATDS, MCS)	✓ Provide input to COA statements and sketches. ✓ Describe in the COA statement how the unit accomplishes the mission, how you will execute the scheme of maneuver, the mission, end state, and battlefield framework (deep, close, and rear). ✓ Display the COA sketch to provide a picture of the maneuver aspects of the COA, to include man-made and natural features (cities, rivers, roads, bridges). ✓ Display on the COA sketch the array of generic forces and control measures.	✓ COA statements and sketches
COA briefing	✓ Staff briefing to CDR including the items listed in Para 3-147, FM 5-0. ✓ CDR gives additional guidance.	✓ Refined CDR's guidance

Figure C-2

Checklist for Commander's Guidance

- Number of friendly courses of action (COAs) to consider versus enemy COAs.
- COA development guidance.
- Decisive points.
- Priority of field artillery tasks (FATs).
- Guidance on methods to accomplish each FAT.
- Clarification on effects (endstate) for each FAT (if needed).
- Commander's critical information requirement: priority intelligence requests, friendly force information requirement, and essential elements of friendly information.
- Reconnaissance guidance.
- Risk guidance.
- Deception objective.
- Priorities for logistical support.
- Timeline input.

- Type of order to issue.
- Type of rehearsal.
- Requests for information.
- Initial intent (purpose, method, endstate).

Course of Action Quality Control Checklist

- Staff and commander (CDR) involved in COA development.
- Modified combined obstacle overlay and situational template used to select position areas (PAs) and support locations.
- Firing batteries can range all engagement areas from primary and alternate positions.
- PAs are off main enemy avenues of approach and objectives.
- PAs support communication.
- PAs have multiple routes for resupply.
- Movement plan gets all assets into position to support all FATs.
- All PAs for field artillery assets have been coordinated through the brigade S-3.
- Survey plan integrated into movement plan.
- Radar position supports its operation (cant, mask angle, and azimuths of search).
- Sustainment is integrated into scheme of maneuver.
- All battalion assets are used to support the operation.
- COA is unique from other COAs.
- Feasibility, Acceptability, Suitability, Distinguishability, and Completeness (FAS-DC) Test.
    - Feasible: If COA meets CDR's intent in terms of time, space, and resources.
    - Acceptable: If COA assumes prudent risk and leaves units combat capable at the end of the operation.
    - Suitable: If COA accomplishes the mission and meets CDR's intent.

- Distinguishable: If COA significantly different from other COAs in terms of positioning of firing elements, type of movement, mode of movement, positioning of radar, positioning of command and control, or method to control fires.
- Complete: The COA must address the who, what, when, where, how, and why questions concerning all participants' roles in the upcoming operation.

- Support, Ammunition, Positioning (SAP) Test.
  - Support of main effort: Firing batteries' azimuth of fire and ranges can support main effort throughout the operation.
  - Ammunition restrictions or constraints (e.g., internal controlled supply rate needed to support FATs throughout all phases of the operation.
  - Positioning of firing batteries supports accomplishment of all FATs.

Appendix D

Step 4: Wargaming

MDMP Activity	ABCS MDMP Planning Action	Planning Product
Conduct COA Analysis (Wargaming) • Gather the tools • List all friendly forces • List assumptions • List known critical events and decision points • Determine evaluation criteria • Select the Wargaming method • Select a method to record and display results • Wargame the battle and assess the results (All ABCS Systems)	✓ Gather the tools you will need to address wargaming mission tasks and desired effects. ✓ Update running estimates. ✓ Review previous assumptions for continued validity and necessity. ✓ Perform the wargaming process on the common operational picture (COP) or analog maps, sand tables, or other tools that accurately reflect the nature of the terrain. ✓ Post the COA sketches on a map displaying the area of operations (AO). ✓ Complete COA overlays and statements. ✓ Post enemy and friendly unit symbols on the COP. ✓ List all friendly forces. ✓ Address how each unit element contributes to the concept of support for each COA and its associated timelines, critical events, and decision points. ✓ List known critical events and decision points that directly influence mission accomplishment. ✓ Develop a list of decision points (DP) of events or locations on the battlefield where tactical decisions are required during mission execution. ✓ Determine evaluation criteria based on commander's guidance that focuses on critical tasks and end state. ✓ Participate in the action-reaction-counteraction process. ✓ Record results. ✓ Conduct target value analysis. ✓ Use execution matrices and assessment and trends analysis work sheets for each COA as input to scripts for wargaming. ✓ Identify likely threat responses. ✓ Refine situation and event templates in accordance with DPs targeted areas of interest (TAI), and HVTs. ✓ Delineate high-payoff targets from HVTs. ✓ Review linkage of PIR to DPs. ✓ Assess sustainment feasibility for each COA. ✓ Review each COA for compliance with ROE and ROI. ✓ Refine effects IRs, effects-related EEFI, and HPTs for each COA and synchronize with COA concept of operation. ✓ Refer to FM 5-0 for detailed wargame actions and considerations.	✓ Concept of operations ✓ Synchronization matrix ✓ Operations overlay ✓ Decision support template ✓ Task organization ✓ Subordinate missions ✓ Updated CCIR ✓ HVTL and HPTL ✓ PIR and IR modifications ✓ Collection emphasis ✓ Concept of fires ✓ AO assignments ✓ Designation of shaping and sustaining operations ✓ Adjusted MOP and MOE ✓ Updates to ROE and ROI ✓ Risk assessment ✓ Updated running estimates that will form the basis for Annexes

Figure D-1

Steps During Wargaming

1. Gather tools.
   - Post sketch of the course of action (COA) to wargame.
   - Post map board with current graphics.
   - Prepare and post field artillery wargame synchronization matrix.
   - Post facts, assumptions, and request for information (RFI) lists.
   - Post specified, implied, essential, and field artillery task (FAT) lists and restated mission.
   - Post situational template with time phase lines to map board.
   - Area setup to encourage participation.
   - Participants assembled.
2. List friendly forces available (organic, attached, operational control).
3. List critical assumptions.

- Assumptions necessary to continue planning.
- Ensure that RFIs have been submitted to answer assumptions, if possible.

4. List critical events to wargame and decision points.

5. Determine and list evaluation criteria for COA.

- Commander's intent and guidance.
- Army tenants.
- Principles of war.
- Supportability for sustainment.
- Flexibility.

6. Select wargame method.

- Belt (sequential belts wargamed working backwards from objective).
- Avenue in depth (good for offense operations).
- Box (used to focus in on a critical event or decisive point).
- Combination (used to cover a critical event or decisive point in greater detail).

7. Select recording technique for results.

- Synchronization matrix.
- Narrative sketch.

8. Wargame the COA and assess the results.

- Executive officer (XO) covers rules to encourage participation.
- XO sets time limit.
- Start with most critical event.
- Use friendly action – enemy reaction – friendly counteraction drill.
- Use synchronization matrix to provide wargame direction.
- Plans officer records results.
- XO ensures everyone participates.
- Include risk assessment in wargame.

Products of Wargaming

- Complete synchronization matrix.
- Concept of operation and coordinating instructions.
- Task to subordinate units.
- Sustainment concept of support.
- Information to develop initial sustainment synchronization matrix.
- Initial casualty evacuation plan.
- Updated operational and sustainment graphics.
- Information to produce decision support template or matrix.
- Refined reconnaissance and surveillance plan.
- Meteorological measuring set.
- Engineer support plan.
- Air defense artillery support plan.
- Internal fire support plan to protect batteries and convoys.
- Refined commander's critical information requirement.
- Survey plan.
- Radar deployment order.
- Update request for information list.
- Contingency operations that must be considered.
- Warning order.

Wargaming Synchronization Matrix

	Critical Event or Time	Setting the Defense
	Friendly Action	Move firing batteries and prepare defense.
	Enemy Action	Interdict MSRs, direct action against batteries, mortar and sniper attacks.
	Friendly Counteraction	Maneuver clears MSR prior to move, establishes TCPs, requests radar coverage from division artillery and digs in.
	Fire Support Task(s)	Destroy enemy reconnaissance elements.
	Decision Points	
INTEL	NAI	12 and 15.
	TAI	
	Collection	Advance parties.
FA Task(s) FA OPS	Task	Destroy enemy reconnaissance.
	Purpose	Destroy enemy reconnaissance to allow unobserved movement of all brigade units.
	Method	
	Priority	**PRIORITIES OF FIRE**: 2-1 Infantry, 1-17 Infantry, Task Force 1-10. **PRIORITY TARGETS**: A Battery, AB 7005; B Battery, AB 3015.
	Allocation	**BATTERY TASKS**: A: establishes TCP, position and operates deception radar. Escort Blade Team to TOC, set up LZ for Class IV and V, collect NAI 15. B: protect radar, occupy with priority to radar, establish TCP Escort Blade Team to A, set up LZ for Class IV, & V, collect NAI 12. **SURVEY**: Team 1 moves with A Battery. Team 2 moves with B Battery. Priority: Radar, B, A, 2-1 Mortar, 1-17 Mortar. **RADAR**: Primary Search AZ - 3100 ALT AZ - 1800. **METDO**: Scheduled: 221000, 222100, 230600 Sept.

	Critical Event or Time	Setting the Defense
FA Task(s)	Restrictions	**MUNITIONS**: Brigade commander will clear use of illumination. **FIRE SUPPORT COORDINATION MEASURES**: CFL is phase line Blue.
	Effects	**EFFECT ON ENEMY**: All recon elements destroyed. **LOCATION OF BATTERIES AT END OF FAT**: A Battery and deception radar in Position Area 3, APF 3000; B Battery and radar in position area 4, AOF 3200.
SPT OPS	M/CM/S	Blade Team 2 operational control (OPCON) to B 221500 to 222300 Sept. OPCON to A 222315 to 230900 Sept. OPCON to TOC 230990 to 231500 Sept. Priority to survivability, CM: Priority of support: B, A, TOC.
	CBRN	
	ADA	Avenger Team 3 OPCON to B Battery 221800.
	Sustainment (Class I, III, IV, V Maint, Medic)	B: Six A-22 bags of wire and pickets and 220 rounds of high explosives/rear area protection air delivery 221800Sep. A: Four A-22 bags of wire and pickets and 180 rounds of high explosives/rear area protection air delivery 221800Sep. Ground logistics package on 231000Sep for Class I.
	C2	SPL pickup zone control for Class IV & V.
	Risk	Ambushes on MSRs, mortar attacks before defense is set.
	External Coordination	Brigade combat team for maneuver force to clear MSR and division artillery for radar coverage.
	Notes & Planning Factors	

Table D-1

Appendix E

Steps 5, 6, and 7: Course of Action Comparison, Approval, and Orders Production

MDMP Activity	ABCS MDMP Planning Action	Planning Product
Step 5 Conduct COA comparison (All ABCS Systems)	✓ Discuss each COA (concept of engagement) and mission objectives. ✓ Analyze the advantages and disadvantages of each COA. ✓ Determine the COA that can best support the mission and achieve desired effects based on the evaluation criteria established during war gaming. ✓ Based upon the relative importance of each criterion, establish weights for evaluation criteria determined during COA development. ✓ Compare COAs using one evaluation criteria category at a time. ✓ Develop a decision matrix shell application and distribute to the staff. ✓ Calculate a score for each COA using the decision matrix shell with evaluation criteria, which highlights COA advantages and disadvantages and provide analysis. ✓ Consolidate staff input on one staff decision matrix. ✓ Identify the COA that has the highest probability of success against the most likely threat and most dangerous COA. ✓ Complete the decision matrix and review outcome with the staff.	✓ Comparison results ✓ Decision matrix ✓ COA decision briefing
Step 6 Conduct COA approval (All ABCS Systems)	✓ Prepare for decision briefing. ✓ Conduct COA approval consisting of recommended COA in a decision brief, commander decision on which COA to approve, and commander issuance of final planning guidance. ✓ Be prepared to refine mission tasks to support accomplishing CDR's desired effects. ✓ Synchronize approved COA for development of tasks for subordinate units. ✓ Identify immediate or time-sensitive requirements / engagements. ✓ Be prepared to identify CCIR, PIR, EEFI, and collection modifications. ✓ Set conditions for next planning cycle's targeting objectives. ✓ Identify preferred COA and make a recommendation to the commander. ✓ Present the recommended solution during the decision brief to the commander. ✓ Commander selects the COA he believes will be the best to accomplish the mission or directs the battle staff to repeat the process. ✓ Provide input to WARNO. ✓ Commander directs the battle staff to issue a WARNO based on the decision brief and his final planning guidance containing the information subordinate units need to refine their plan. ✓ Commander issue final planning guidance to the battle staff. ✓ Prepare the order or plan by turning the selected COA into a clear, concise concept of operations with required supporting information.	✓ Decision briefing ✓ Selected COA ✓ CDR's final planning guidance ✓ Updated CCIR and EEFI ✓ Risk assessment and modified risk guidance ✓ WARNO (See FM 5-0 for standard contents)
Step 7 Orders production (MCS)	✓ Refine staff estimates based on the commander's guidance. ✓ Review the base order / plan and annexes to ensure they are complete and follow the commander's guidance. ✓ Create the OPORD / OPLAN and respective staff annexes and post on the shared drive upon approval. ✓ Approve the OPORD. ✓ Disseminate the battalion OPORD / OPLAN via ABCS, insuring non-digital units receive appropriate hard copy products. ✓ Conduct confirmation briefings as appropriate.	✓ OPORD

Figure E-1

Course of Action Comparison Matrix Worksheet

Criteria	Weight	COA 1	COA 2	COA 3
Accomplishment of FATs	4	1 (4)	3 (12)	2 (8)
Logistical Resupply	3	2 (6)	3 (9)	1 (3)
Field Artillery Maneuver	3	2 (6)	1 (3)	3 (9)
C2	3	1 (3)	3 (9)	2 (6)
Counter-fire Operations	2	3 (6)	2 (4)	1 (2)
Simplicity	3	1 (3)	2 (6)	3 (9)
Survey Ops	1	1 (1)	2 (2)	3 (3)
Maneuver and Mobility Support Ops	1	2 (2)	1 (1)	3 (3)
Force Protection	3	1 (3)	3 (9)	2 (6)
Future Ops	2	3 (6)	2 (4)	1 (2)
Numerical Total Weighted Total		17 (40)	22 (59)	21 (51)

Table E-1

Field Artillery Support Plan Outline

(Classification)

Copy No. __ of __ copies
Unit preparing order
Geographical location
Date-time group (DTG) of order

APPENDIX __ (FIELD ARTILLERY SUPPORT PLAN [FASP]) TO ANNEX __ (FIRE SUPPORT [FS]) TO OPORD

Reference: List any maps, charts, or other documents (tactical standing operating procedures [TSOPs], and so on) required to understand the order. Reference to a map will include the map series number (and country or geographic area, if required), sheet number (and name if required), edition, scale (if required), and the force common datum (see note below) from a global positioning system (GPS) (specify type of GPS and datum used) or from the center of the lower margin on a map. Reference listed here should not be reprinted in tabs unless tabs are separated from the basic document.

Note: Universal transverse mercator coordinates from the same point computed on a different datum may differ as much as 900 meters.

Time Zone Used Throughout Order: The time zone applicable to the operation. Times in other zones are converted to this zone for this operation. Consistency must be maintained through all documents.

1. Situation. Paragraph 1 is used exclusively to provide information. It includes items of information affecting FA operations that may or may not be included in the fires paragraph of the maneuver operation order (OPORD)/operation plan (OPLAN) or the fire support annex. It gives an overview of the general situation so subordinate commanders can understand the environment in which they will be operating. If all organic, attached, or supporting commanders do not receive complete copies of the maneuver OPORD/OPLAN and the fire support annex, then the FASP repeats those items critical to the execution of their missions.

> **a. Enemy Forces**. Subparagraph 1a provides enemy information vital to the FA unit. This includes enemy indirect fire capabilities that may influence FS activities, the ground threat, the air threat, counterfire threat, and any other enemy information of particular relevance to FA units. Reference may be made to an intelligence annex, an overlay, a periodic intelligence report, or to an intelligence summary (INTSUM). Consider using the intelligence annex as a tab.

b. Friendly Forces. Subparagraph 1b contains the missions and commander's intent of higher headquarters (HQ) (two levels up) and/or that of supported maneuver elements. Missions of adjacent, supporting, and reinforcing units also may be outlined here. Information should be limited to that which subordinate commanders need to know to accomplish their missions. The supported maneuver commander's intent for fire support as well as the force FA commander's intent during general support and general support – reinforcing missions are included.

c. Attachments and Detachments. Subparagraph 1c should list units attached to and detached from the FA unit (if not included clearly in the task organization), the terms of attachment, and effective DTGs, if appropriate.

d. Assumptions. If the FASP supports an OPLAN, assumptions may be required. If the FASP is part of an OPORD, assumptions are not included.

2. Mission. Paragraph 2 is a clear, concise statement of the task the FA unit is to accomplish. As a minimum, it should answer the questions, who, what, when, where, and why. It includes essential tasks, essential field artillery tasks (EFATs)/essential fire support tasks (EFSTs), determined by the commander as a result of his mission analysis.

3. Execution. Paragraph 3 contains the how-to information needed for mission accomplishment. The FA battalion commander's intent is expressed here. The intent should briefly address the purpose of the FA fires, the methods used by the force to reach the end state (e.g., EFSTs/EFATS that must be accomplished, guidance on movements, methods of survivability), and the end state (address criteria for success).

a. Concept of Operations. Subparagraph 3a is a detailed statement of the FA commander's visualization of the conduct of FA support for the operation by phase to the desired end state. The concept clarifies the purpose of the operation (by phase), then how FA will support it. It is a detailed explanation of the commander's intent. It is stated in enough detail to ensure appropriate action by subordinate units in the absence of more specific instructions. This paragraph may include a summary of the maneuver concept by phase for units that do not receive the maneuver OPORD.

b. Organization for Combat. Subparagraph 3b is a clear statement of the organization and tactical missions of the subordinate units of the FA HQ. Organization for combat normally will be done by various phases corresponding to the operation (if changes occur). Anticipated on order changes to organization or tactical missions are included in this subparagraph.

c. * * *

d. * * *

e. * * *

f. Coordinating Instructions. The last subparagraph in paragraph 3 is coordinating instructions. It includes instructions and details of coordination applicable to two or more subordinate FA units. Instructions included in the subparagraph also may be addressed in tabs to the FASP. If a separate tab is developed, include in the coordinating instructions subparagraph only items of general interest, with details placed in the tab. If a tab is prepared, reference it in the body of the FASP. This subparagraph should include instructions concerning the following:

- ○ Target acquisition (TA) (includes counterfire reference grid and instructions to or about specific observers).
- ○ Survey (includes priorities for survey, accuracy's required [if other than TSOP], timing, position requirements, future plans, spheroid, datum, ellipsoid, codes [for position azimuth determining system backup computer system, Advanced Field Artillery Tactical Data System (AFATDS)], datum codes used, time zone letter, and grid zone).
- ○ Automated/manual fire control/fire direction instructions, especially coordination requirements with units with similar, but not identical, automated systems. Major subordinate unit taskings and changes from concept of operations standard operating procedures (SOPs) are identified here.
- ○ High-payoff target list (taken directly from maneuver OPORD/OPLAN).
- ○ Attack guidance matrix. (This may appear as a matrix in a tab. It's taken directly from the maneuver OPORD/OPLAN. (Specific automated commander's criteria are found in the Initial Fire Support Automated System [IFSAS], fault detection system [FDS], Lightweight Tactical Fire Direction System [LTACFIRE], or AFATDS Tab).

- ○ Nuclear, biological, and chemical defense (includes mission-oriented protective posture, operation exposure guidance, and decontamination instructions/locations).
- ○ Met (includes source, type, and times of met messages).
- ○ Liaison requirements.
- ○ Fire plan (includes target list, schedules of fires, and fire support coordination measures [FSCMs]).
- ○ Commander's critical information requirement, priority intelligence requirement, essential elements of friendly information, friendly force information requirement and other intelligence datum/information as appropriate.
- ○ Intelligence acquisition tasks.
- ○ Ammunition restrictions (includes expenditure restrictions, approval requirements, and risk limitations).
- ○ Antifratricide measures (such as vehicle markings) that are not TSOP.
- ○ Rehearsals.

4. Service Support. Paragraph 4 includes specific service support instructions and arrangements supporting the operation. The commander's guidance regarding combat service support (CSS) will be here. Supply, maintenance, medical, and personnel information are included in this paragraph. As a minimum, the controlled supply rate (CSR) and the CSS locations (combat trains, field trains, casualty collection points, logistics resupply point [LRP], ammunition transfer point [ATP], and/or ammunition supply point [ASP]) should be given. Address only those CSS aspects that apply to the operation. Address the pertinent aspects of the six tactical logistic functions of manning, arming, fueling, fixing, moving and sustaining soldiers and their systems. These functions should be addressed in turns of before, during, and after the operation.

a. Manning — Current personnel strength (percentage), project replacements.

b. Arming — Ammunition resupply, CSR, ATP, ASP.

c. Fueling — Fuel points, priority of refuel.

d. Fixing — Unit maintenance collection point location, allocation of recovery assets, maintenance and recovery priorities, cannibalization authority.

e. Moving — Locations of main supply route, start point, release point, and checkpoints along the route, priorities of movement on MSRs.

f. Sustaining — Medical resupply, barrier materials, restricted issue or controlled exchange items, mortuary affairs, chaplain information, water points, locations of battalion aid station, casualty collection point, chemical casualty collection points, civil-military cooperation.

(Paragraph 4 may be amplified in a tab.)

5. Command and Signal

a. Command. The first paragraph should list the locations of the unit TOC and the locations of higher, supporting, and supported unit TOCs. The commander's planned location during the operation, and alternate command post can be in this paragraph. Plans should also address any alternate battalion fire direction center arrangements not covered in, or that are changed from, unit SOP. Other automated C2 systems used or interface requirements (such as maneuver control system), and any particular aspects for their use also are included here. Address succession of command if other than TSOP.

b. Signal. This subparagraph contains the index of the effective signal operation instruction to include edition in effect and courier schedule. Special instructions on the use of radios, wire, mission support element, Enhanced Position Location Reporting System, retransmission elements (location and priority) and signals not covered in TSOP are included here.

Acknowledge:

ISSUING COMMANDER'S NAME/RANK

Official:

/Signed/

S-3 NAME

Approval: The original/file copy bears the signature of the FA battalion commander. The S-3 authenticates all other copies, which are disseminated to subordinate and reinforcing/reinforced FA units, any attached or supporting elements, and force FA HQ.

Tabs:

A

B

C

Note: Tabs should be prepared for portions of the FASP that are explained better in a different format (for example, overlay or matrix), that are too extensive to be in the FASP, that are expected to change or lengthen, or that are submitted too late to be included. Often subordinate units will not receive the basic maneuver OPORD/OPLAN or fire support annex. Therefore, reprints of portions of these documents may be required and included as tabs.

Tabs are ordered as they are referenced in the basic OPORD or OPLAN. The TSOP may specify that some tabs will always be produced. Common tabs used at battalion level include:

- Forward air support munition — FA tactical operation center (TOC).
- FA positioning and movement overlay — FA TOC.
- Fire plan (S-3 may refer to plan names and subordinate elements, can print out target list, schedules of fires and FSCM instead of developing a separate tab) — fire support element (FSE).
- Survey — FA regional security officer.
- TA — FA TOC.
- AFATDS, LTACFIRE, FDS, or IFSAS — FA TOC.

Other tabs used if time permits:

- Intelligence (INTSUM, overlay, annex, or PIR and information requirement lists) — maneuver/higher FA HQ TOC.
- Service support and CSS overlay — FA air line of communications.
- Maneuver overlays — maneuver/higher FA HQ TOC.
- Met — Force FA HQ.
- Task organization (may be attached from OPORD).
- Obstacle overlay — maneuver/higher FA HQ TOC.
- Rules of engagement — maneuver/higher FA HQ TOC.

- Air defense artillery, engineer, and other supporting element plans as appropriate.
- Special distribution items (such as antifratricide prevention information).

Field Artillery Support Plan Briefing Agenda

Briefer	Topics
S-3	Operation Overview • Area of interest and area of operation. • Intent of higher headquarters, two levels up. • Critical assumptions.
S-2	Updated Intelligence Running Estimates • Weather analysis (focus on impact on field artillery [FA] operations). • Terrain analysis (focus on impact on FA operations). • Enemy situation. ○ Current disposition of enemy forces. ○ Most likely enemy course of action (COA). ○ Most dangerous enemy COA. ○ Enemy air threat and routes. ○ Probability of enemy use of chemical, biological, radiological, and nuclear (CBRN). ○ Greatest threats to firing batteries, tactical operations center, and air line of communications. ○ Projected enemy timeline.
S-3	Operation Brief • Mission. • Review field artillery tasks (FATs). • Task organization. • Commander's intent (commander discusses). • Concept of the operation. • Tasks/purposes to subordinate elements. • Survey plan. • Control measures. • Coordinating instructions.

Briefer	Topics
S-4	Sustainment • Concept of support. • Water distribution plan. • Fuel distribution plan. • Ammunition distribution plan. • Maintenance priorities and recovery plan.
S-1	Personnel and Services • Running estimates of casualties by battery and replacement rates. • Casualty evacuation plan.
S-6	Command and signal
XO	Timeline (real time based off of network time/global positioning system).
CSM	Comments.
CDR	Risk assessment/comments.

Table E-2

Appendix F

Steps for Conducting a Rehearsal

Step	Action/Activity	Person
1.	Supervise the setup of rehearsal tool(s).	XO/S-3
2.	Conduct roll call.	OPS NCO
3.	Orient participants to the rehearsal tool(s).	XO
4.	Discuss the rules for conducting rehearsal.	XO
5.	Define the standards for success.	XO
6.	Appoint recorder.	XO
7.	Verbal "walk-through" of the concept of operations.	S-3
8.	Review commander's intent.	CDR
9.	Outline critical events to be rehearsed.	S-3
10.	Portray enemy situation at first (most) critical event (focus discussion on what firing batteries will see).	S-2
11.	Portray the friendly situation at first critical event.	S-3
12.	Each major participant discusses his element's role in the event (brief by order listed on the synchronization matrix).	Element Leaders
13.	Ensure that all participants brief and their actions are synchronized in accordance with the synchronization matrix.	XO/S-3
14.	Repeat steps 10-12 for each critical event.	S-3
15.	If standard is not met, rehearse again.	XO
16.	Ensure all issues are resolved, changes are posted to decision support template and changes published in a fragmentary order.	XO/S-3

Table F-1

Appendix G

References

Field Manual 5-0, March 2010, *The Operational Process*.

Center for Army Lessons Learned Newsletter No. 99-11, *An Artillerization of the Military Decisionmaking Process (MDMP)*.

Army Tactics, Techniques, and Procedures 5-0.1, September 2011, *Commander and Staff Officer Guide*.

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If your unit has identified lessons or best practices or would like to submit an AAR, please contact CALL using the following information:

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